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Two cases of ovariotomy.

By John Homans, M.D. Harv.

Case I.—Double ovariotomy; death; autopsy; peritonitis; cancer of the stomach and peritoneum.—A single woman, a domestic, 32 years of age, entered the Carney Hospital, June 8, 1872. The right umbilical and iliac regions were occupied by a hard tumor, irregular in shape and outline, and somewhat flattened; the growth, also, projected downwards between the uterus and rectum. The girth at the umbilical level was twenty-nine inches, and it was fourteen inches from the sternum to the pubes. The tumor or tumors were freely movable and there were no adhesions. Fluctuation was doubtful. The needle of the aspirator was entered at the most elastic spot, and about a drachm of clear straw-colored fluid was drawn out. The bladder was depressed. The uterus was normal in situation, the cervix being quite short; the length of the uterine cavity was normal. The woman's health had been fair until four months since, when she experienced a feeling of soreness across the centre of the abdomen. Two months later three tumors about the size and shape of flattened lemons were noticed in the right iliac region. At the time I first saw her, there was considerable emaciation, and much pain and vomiting. She begged that an operation might be performed, and hoped that she would be relieved from her distress either by recovery or death. She had come from Worcester, having been induced to do so because another woman, with ovarian tumor, from that city, had been cured at the hospital.

On June 18th the operation was performed. Drs. Langmaid, Hayden, Cowles, Draper, Wheeler, C. D. Homans, J. O. Green and several other gentlemen were present. She was placed on the table in a fine large airy room, overlooking the city and harbor; the rubber sheet with an oval opening was placed over the abdomen and clothes; it was kept on by adhesive plaster spread on its inner edge, in the manner that Mr. Spencer Wells practises. She was then etherized. The cysts were exposed by an incision extending from two inches above the umbilicus to the pubes. Several cancerous-looking nodules were seen in the peritoneum in the line of incision. The abdomen contained about four pints of clear ascitic fluid. The
right ovary was first removed; there were no adhesions; the pedicle was clamped, but the clamp was removed on account of the dragging on the uterus. A silk ligature was applied and cut off short. The left ovary was then removed, and the pedicle secured by a silver wire ligature, and, as there was some haemorrhage, by a silk one also; both were cut off short. The wound was closed by deep and superficial sutures of silk.

The right ovary, the one first removed, was found to be nearly solid; its structure was cystic, the cysts varying from those of microscopic size to the size of an English walnut. The whole mass was about as large as the adult human brain. The left ovary was of the same structure as the right, but not as large. One weighed four and a half pounds, the other three. Cotton batting was laid over the abdomen, and a binder of sticking plaster applied. It was curious to see the ascitic fluid collect in the pelvis during the operation; the pelvis would be sponged dry, and in a few minutes a drachm of clear, limpid serum would accumulate, seemingly poured out from the peritoneal walls. The pulse was 120 after the operation, and the respiration feeble.

June 19th. There was no vomiting till midnight, eight hours after the operation. At 7, A.M., the pulse was 146. There was great thirst, but no tenderness, or pain. The vomiting continued with more or less intermission till her death, which took place at 2, A.M., June 20th, about forty hours after the operation.

At the autopsy, the incision was found firmly united. The coils of intestine were of a red color, and covered more or less with flakes of lymph, which glued them together. Dr. Fitz examined the stomach and found in it a tumor about the size of the palm of the hand, occupying nearly the whole of the lesser curvature. It was ulcerated, especially toward the centre, the mucous membrane being destroyed. Nodules of cancer were found on the uterus, mesentery and peritoneum. In this case, the patient's pain, distress and vomiting were caused by the cancerous affection of the stomach and bowels, and not by the more obvious ovarian disease; and had the exact condition of things been known, the operation would not have been performed. By her death, however, she was spared much suffering.

Case II.—Ovariotomy; Death; Peritonitis.—A single woman, 49 years of age, a school-teacher, came to the Carney Hospital from Nantucket, on April 22, 1873. A large cyst filled the abdomen from the sternum downwards. It had been of seventeen months' growth. The girth at the umbilicus was forty-five inches, and it was twenty-two inches from the sternum to the pubes. She was in good spirits, and her general health was fair, though feeble. Both feet were somewhat edematous, and there was a trace of albumen in the urine. The uterus was normal and virginal. The catamenia ceased a year ago. The pulse was 76, of fair strength.
OVARIOTOMY.

The patient decided to have the operation performed, after its dangers had been fairly placed before her, and on April 24, 1873, it was done. Drs. Greenough, Langmaid, Anderson (of Cincinnati), Hayden, J. O. Green, Hartnett, Winslow Lewis, C. G. Putnam, C. D. Homans, Thaxter, W. G. Wheeler, Doherty, Ferguson, J. P. Reynolds, Bixby and Mr. Appleton were present. The patient was etherized and the india-rubber sheet used as before. The cyst was exposed by an incision about four inches long, midway between the umbilicus and pubes. Spencer Wells's large trocar was used, and the contents flowed well through the tube for a few minutes, but a partition wall in the cyst blocked the end, and the tube was withdrawn. Drs. Greenough and Anderson carefully kept the sides of the peritoneum in connection with the cyst wall, and no fluid ran into the peritoneal cavity. The cyst was universally adherent; the adhesions were separated easily by means of the finger, and the cyst withdrawn. The pedicle was found to be the broad ligament and too short for a clamp, consequently the cyst was tied en masse about two inches from its origin and cut off. The ligature used was a large carbolized one of hemp. The stump was easily kept outside of the abdomen, and the wound sewed up around the pedicle, the sutures being of carbolized hemp. Less than two drachms of blood were lost. The sponges used were perfectly new. The catheter was used every seven hours by Dr. Anderson (to whom both the patient and myself were deeply indebted), and she was fed on beef essence and brandy. At the conclusion of the operation, the pulse was 85, and the respiration good; there was slight vomiting at midnight, but it ceased and did not return. During the next day, the pulse ranged from 100 to 110, and the temperature from 100° to 100½°. On April 26th, she was reported to have passed a good night; there was no tenderness, but distention of the abdomen from gas took place; an enema of castor oil and turpentine relieved this a little. The pulse varied from 112 to 150, and the temperature from 1014° to 1024°. At 5, P. M., one superficial and one deep suture removed. At 10, in the evening, there was threatened collapse, but recovery to her former condition took place.

April 27th.—Distention continues; she takes food, champagne, &c., well. The pulse varied from 126 to 136, and the temperature stood at 1014°. In the afternoon, all the sutures were removed, the wound was opened behind the pedicle, and about six ounces of dark-colored fluid ran out. A very dilute solution of chloride of soda was injected through an elastic catheter and brought out several flakes of lymph. As there was considerable pain at this time, about one-sixth of a grain of morphine was injected subcutaneously. Mind wandering. At 9, P. M., a drainage tube was put in by the side of the stump of the pedicle. She gradually failed, and died at 6, A. M., April 28th, eighty-six hours after the operation.

At the autopsy, the abdominal wound was well united, except
where it had been opened. The colon and stomach were greatly distended by gas. The intestines were more or less glued together by recent lymph. The uterus was of a deep-red color, and more or less covered with purulent lymph. There were about seven ounces of brownish-colored fluid in the peritoneal cavity, and there were numerous ecchymoses between the peritoneum and muscles in the anterior abdominal walls. There were no coagula, nor signs of haemorrhage. Possibly the result of the operation would have been different, had it been performed before the patient had become so much reduced in strength.

161 Beacon Street, Boston.

TATOOING THE CORNEA.

By Henry W. Williams, M.D.

Read before the Boston Society for Medical Observation.

The removal of conspicuous blemishes of the cornea by a safe and nearly painless process of tattooing deserves to be regarded as one of the most valuable recent improvements in ophthalmic surgery.

Although known to the ancients from the time of Galen, it had quite fallen into oblivion; and, though not having the importance of those capital operations which preserve or restore the sight, it yet confers a great benefit upon patients by ridding them of what is often a marked or even a repulsive deformity.

The central part of the leucoma may be tinted with India-ink, to represent the pupil, and the marginal portions of the opacity with brown, blue, or other water colors, to correspond with the tint of the iris in the other, healthy eye. The ink should be rubbed up with water to the consistence of a thick paste, and may then be preserved for use, in a fluid condition, by adding glycerine.

The process of pricking in should be begun at the lower part of the space it is intended to cover. Wocker uses a spring elevator, to keep the lids separated; but this is more complained of than the operation itself, and is not necessary. It is sufficient to press the lids open with the thumb and finger, which may be covered, as suggested by Warlomont, with a bit of rag, to prevent slipping and to absorb the tears. A cataract needle, an instrument composed of several very fine sewing needles bound together and inserted into a handle, or any delicate pointed instrument, may serve for the tattooing. A little of the thick pigment being taken up on the needle and placed upon the cornea, a large number of punctures are rapidly made, through the epithelial layer only, over the surface it is proposed to color, and the pigment is then gently rubbed into the punctures with the end of the finger.

Usually there is not much sensitiveness in the parts, and it is sometimes possible to accomplish nearly as much tinting as is needed,
over a considerable space, at a single sitting. In other more sensitive subjects this cannot be done, and the tattooing must be repeated, perhaps three or four times, to obtain the desired result. Generally, so much can be gained at a single performance that a patient appreciates the resulting benefit and willingly consents to a repetition of the tattooing.

If possible, the use of forceps to hold the eyeball should be dispensed with. If used, the conjunctiva should be taken hold of above the cornea, so that, in case the coloring matter should reach the punctures made by the forceps, the stain which would result may be so placed as to be concealed by being covered by the upper lid.

This operation should not be performed in cases where we find only a recent opacity of the cornea, as in many of these instances we may expect a gradual absorption of the cloudiness, especially if the patient is young. Of course it is needless to resort to this means, intended mainly for cosmetic effect, where both eyes are sightless, unless in exceptionally great deformity. But, where one eye is perfect, the removal of a blemish from the other is often a great boon to sensitive individuals, especially to ladies.

Scarcey any precautions are needed after this little operation, and it may safely be repeated in a few days, sometimes in a day or two if desirable. It may be undertaken by any physician having a delicate touch, even if quite inexperienced in eye operations. It should not be done, however, while any lingering irritation of the internal parts of the eye is present. It is especially adapted to cases of dense opacity, either partial or affecting the whole extent of the cornea. It may also be resorted to with advantage in some special conditions, where the cornea is transparent, but where it is desirable virtually to limit the area of the cornea by excluding some of the pencil of the rays of light; as, for instance, in some cases where iridectomy has been done, or in conical cornea.

Salivation in Iritis.—Dr. A. D. Williams, of St. Louis, expresses his dissent from the views of Dr. Ricord as announced at the last meeting of the British Medical Association, so far as relates to the advantages of salivation in the treatment of syphilitic iritis. The treatment of this affection, which, by the way, is self-limited, and of short duration, should be directed first to the relief of the acute inflammation of the iris, and afterwards to prevent the bad consequences which result from this inflammation, viz., the adhesions which form between the pupillary margin of the iris and the crystalline lens. These synechiae always interfere materially with vision, and leave the eye in a state of tension, which is liable to excite repeated attacks of the inflammation. Mercury is, of course, to be recommended in this affection, with the view of counteracting the syphilitic poison in the system, but the local treatment is, after all, the most important. This consists in the energetic use of atropine in the eye, so as to dilate the pupil to the fullest extent, combined in severe cases with the application of leeches.—Medical Archives, March, 1873.
Progress in Medicine.

REPORT ON MEDICAL CHEMISTRY.*

By Edward S. Wood, M.D.

A new Reagent for the Detection of Blood Pigment.—Prof. F. L. Sonnenschein (Vierteljahrshr. f. gericht. und öffent. Med., 1872, No. 4) recommends a saturated solution of sodic tungstate, which has been previously acidulated with acetic acid, as a reagent for the precipitation of haemoglobin from solutions which contain it. This reagent forms, with all of the protein compounds, a precipitate, which is insoluble in dilute acids, but readily soluble in alkaline fluids, and is more delicate than "Millon's reagent" (nitrate of mercury), which is generally used for the detection of small amounts of these compounds.

It gives, with a very dilute solution of blood, a reddish-brown or chocolate-colored precipitate, which is bulky at first, but collects together upon being boiled into a small volume. This precipitate is soluble in ammonia water, to form a solution of the same color as the solution of a corresponding amount of blood in ammonia, and can be re-precipitated by the addition of an acid.

The chief value of this reagent is, that it appears to precipitate the haemoglobin as such, without first decomposing it into haematin and globulin, and, also, that it precipitates this pigment from very dilute solutions, so that we are enabled by its means to obtain a concentrated from a very dilute solution. Moreover, since the precipitate produced is a stable compound, and admits of being dried, we can preserve a given specimen of blood coloring matter for any desired length of time.

Sodic molybdate acts in precisely the same manner as sodic tungstate.

The Condition of the Alkaline Earths and Phosphoric Acid when dissolved in the Blood.—From the experiments of A. P. Fokker (Pflüger's Archiv, Nos. 4 and 5, 1873), it appears probable that it is in combination with albumen that calcic phosphate exists in the blood, since he was enabled to obtain such a combination artificially which gave the same reactions as the blood serum.

In the first place, he prepared compounds of the calcic and magnesium oxides with albumen, by dusting over the surface of some filtered egg albumen a little slaked lime or oxide of magnesium, these compounds corresponding to the alkali albuminates formed by the action of the hydrates of sodium or potassium upon albumen.

The calcium albuminate is soluble in water, the solution having an alkaline reaction, and becoming turbid if exposed to the air, owing to the absorption of carbonic acid and deposition of calcic carbonate. The aqueous solution is not coagulated by boiling, but is decomposed by the addition of sodic or potassic hydrates, these reagents forming the sodic or potassic albuminates and calcic hydrate which is precipitated if the solution is sufficiently concentrated. Calcic albuminate is insoluble in dilute hydrochloric or nitric acids, soluble with difficulty in acetic acid, but readily soluble in phosphoric acid, with the evolu-

* Second semi-annual Report.
tion of sulphuretted hydrogen. This phosphoric acid solution is also decomposed by potassic hydrate, potassic albuminate and calcic phosphate being the products of the decomposition. If sodic phosphate be added to calcic albuminate, a precipitate of calcic phosphate takes place, but this is explained by the fact that a part of the phosphoric acid of the reagent unites with the albuminate, and the free alkali thus formed acts as usual to form the sodic albuminate and calcic phosphate; this change, however, can be prevented by the previous addition of a little acid to neutralize the alkali as it is formed, and no precipitate takes place when a solution of the albuminate is acidulated with phosphoric acid and then neutralized with sodic carbonate. Carbonic acid gas, passed through a solution of the albuminate, causes a precipitate of calcic carbonate, which an excess of the gas re-dissolves, as in the case of the ordinary calcium salts; and if to a solution thus treated sodic carbonate and sodic phosphate be added, no precipitation takes place, even upon boiling, thus showing conclusively that the calcium is not in combination with the carbonic acid or the phosphoric acid alone, for the excess of carbonic acid (which could hold the carbonate in solution) would be expelled by boiling, and the phosphate is insoluble in alkaline solutions. Oxalic acid or ammonic oxalate precipitate from an aqueous solution of the albuminate calcic oxalate and the whole or a part of the albumen.

The magnesium albuminate has nearly the same properties as the calcium compound.

Test for Sulpho-cyanides in Saliva.—(Fres. Zeit., 1872, No. 3, from Archiv der Phar., Bd. 198.) R. Böttger recommends the use of guaiac paper. This paper is made by moistening a strip of filter paper with tincture of guaiacum, drying it, and then passing it through a dilute solution of sulphate of copper (1:2000). A blue color is instantly produced by moistening paper so prepared with saliva.

Test for Cholesterin by Means of Sulphuric Acid and Chloroform.—E. Salekowski. (Fres. Zeit., 1872, No. 4.)—This delicate test for cholesterin is performed in the following way. Dissolve a few crystals of the cholesterin in chloroform, add an equal volume of strong sulphuric acid, and shake the mixture. The chloroform becomes quickly colored blood red, then cherry red or purple, which color is permanent for several days. At the same time, the sulphuric acid shows a strong green fluorescence. If the red chloroform solution be poured into an evaporating dish, or into a test tube which contains the slightest trace of moisture, it quickly changes to a blue, then to a green, and, finally, to a yellow color; but if the test tube be perfectly dry, the red color is retained. The red or purple color can be restored to the decolorized chloroform by shaking again with sulphuric acid. The addition of alcohol, ether, or even fresh chloroform, to the red solution will deprive it of its color. Glacial acetic acid causes the color to change to a blue.

Recognition of the Biliary Pigments by means of the Spectroscope.—B. J. Strockvis. (Fres. Zeit., 1872, No. 4, from Ber. d. deutsch. chem. Gesell., v., p. 583.)—If urine, which contains biliary pigments, be treated with a little zinc chloride and then ammonic hydrate in excess, it assumes, after being filtered or shaken with air, a brownish green color, and if this fluid be subjected to the action of the spectroscope, three distinct absorption bands are visible. One is a dark and well-defined band in
the red, between the Fraunhofer lines C and D, beginning at C and ending near D. The second is at the junction of the orange and yellow, between the lines D and E, beginning near D, and is narrower and more clearly defined than the first. The third is a small and not well defined band, and also lies between D and E, but near E; this band is not peculiar to jaundiced urine, as the first two are. If the urine contains but a very small amount of pigment, it must be precipitated with acetate of lead, filtered, and the precipitate decomposed by an alcoholic solution of oxalic acid. The resulting fluid, after the addition of zinc chloride and ammonic hydrate, shows the above absorption bands, if placed before the slit of the spectroscope.

The substance, which gives rise to these absorption bands, is one of the oxidation products of bilirubin, termed by the author choloverdin, neutral solutions of which fluoresce into red; but of the alkaline solutions, only the ammoniacal fluoresce. It is soluble in alcohol, ether, chloroform and amyl alcohol, the last three solvents not being capable of removing it from alkaline solutions. All solutions which contain choloverdin, also contain another substance, described as a reducible substance, which is present in all fluids containing any of the oxidation products of the biliary pigments, even if the fluid has been acted upon by nitric acid. If reduced by sulphide of ammonium or sugar, an absorption band appears between D and E. This substance is soluble in water and alcohol, less so in ether and chloroform, and is very stable in acid solutions, but not at all so in alkaline fluids.

The chief value of this test is, that it permits the recognition of the biliary pigments in fluids when the normal pigments, bilirubin, &c., have been so changed by oxidation that they are no longer recognizable by the ordinary Gmelin's test.

**Detection of the Biliary Acids in Normal Urine.**—Prof. Vogel gives the following simple process for the detection of the biliary acids in normal urine. (*Fres. Zeit., 1872, No. 4, from Tagebl. der 45. Versamml. deutsch. Naturf. u. Aerzte in Leipzig, No. 5, p. 75.*) Four or five ounces of the urine should be acidulated with a few drops of hydrochloric acid, and shaken for at least on hour with chloroform. The chloroform, which has become brown and turbid, can be separated from the urine by decantation, or with a pipette, and rendered clear by shaking with six or eight centimetres of absolute alcohol. This mixture is then to be filtered, and the chloroform separated from the alcohol by means of a pipette, and allowed to evaporate on a watch glass. If this residue, which has a bitter taste, be treated with sugar and concentrated sulphuric acid, a violet color is produced, first around the grains of sugar; this color becomes changed to a brown in fifteen to thirty minutes. (Pettenkofer's test.)

In this manner, Vogel found a small amount of the biliary acids in the urine of eight healthy individuals, and also in that of persons suffering from various diseases. In fact, no specimen examined failed to give the reaction for the biliary acids, when treated in this manner; and the color was more strongly marked in the urine of patients with disease of the liver. (Three cases of catarrhal icterus, one of carcinoma of the liver, and one of cirrhosis.)

In order to be sure that this reaction was not caused by other substances, which may give a somewhat similar color with sugar and sulphuric acid (such as albumen, muscular fibre, various resins and oils,
phenol, &c.). Dragendorff evaporated a litre of the urine of ten healthy individuals, varying in age from 8 to 55 years, extracted the residue several times with alcohol, evaporated this, and dissolved again in water. This solution was precipitated with acetate of lead, dissolved in alcohol, and decomposed with sodic carbonate, carbonate of lead and glycocholate of sodium, being the products of the decomposition, the latter remaining dissolved in the alcohol. From this solution the glycocholic acid was isolated, and its identity confirmed by Pettenkofer's test.

Not satisfied with this result, Dragendorff, by working with a large amount of urine (100 litres) in the above way, succeeded in obtaining a sufficient quantity of the acid to enable him to purify it by re-crystallization and make an ultimate analysis of it, thereby proving beyond a doubt that the substance which thus reacts with Pettenkofer's test in normal urine is composed of the biliary acids, and that these do, under normal circumstances, find their way into the general circulation in small amounts, and are partially eliminated by the kidneys.

Separation of Carbolic Acid from Urine.—E. Salkowski. (Fres. Zeitsch., No. 3, 1873, from Archiv f. Physiol., Bd. v., p. 353.)—The urine is made strongly acid with tartaric acid, and distilled until about one half of the liquid has passed over. The distillate should then be shaken twice with ether, the ether decanted, and allowed to evaporate. The residue can then be treated with a little water, filtered if necessary, and Lex's test (see below) applied.

In 200 cc. of normal urine, no carbolic acid can be detected, but if 0·1 grm. be added (= 1 part in 2000), an intense blue coloration is produced, and this color can be perceived when the urine contains only one part in 4000.

Lex's test for carbolic acid is performed with ammonic hydrate and calcic hypochlorite (chloride of lime). To the suspected fluid is added about one fourth of its volume of ammonia water, and then a few drops of a saturated solution of hypochlorite, and the mixture gently warmed to boiling. If much carbolic acid is present, a blue color appears immediately; but if only a minute amount, it does not appear until about fifteen minutes have elapsed. Too much calcic hypochlorite, or a too rapid application of heat, prevents the reaction. The fluid which has once turned blue may become colorless by standing; but the color can be restored by the addition of a few more drops of the hypochlorite. If the fluid is acidulated with sulphuric or hydrochloric acids, the blue changes to a red color.

Quantitative Determination of Uric Acid in Diabetic Urine. E. Kultz. (Fres. Zeitsch., 1872, No. 3.)—For this purpose a large amount of the urine should be used (the whole amount passed in twenty-four hours), placed as soon as passed in a cool place, and one or two cubic centimetres of a solution of creasote added, in order to prevent fermentation from taking place. When the whole amount for twenty-four hours is collected, 1000 cc. (2·1135 pints) should be filtered off, precipitated by the addition of 80 cc. of a solution of acetate of lead, and 540 cc. of this mixture (corresponding to 500 cc. of urine) quickly filtered off. To this 540 cc. should be added a concentrated solution of mercuric acetate, until no further precipitation is produced. After being allowed to stand for twelve hours, this precipitate should be collected upon a filter paper, thoroughly washed, and finally decom-
posed by sulphuretted hydrogen in a flask, into which both filter and precipitate have been introduced together. The mercuric sulphide thus obtained must be thoroughly freed from uric acid by boiling several times with water which contains a little sodic carbonate, filtering, and the uric acid precipitated from the filtrate by hydrochloric acid. It can then be dried and weighed in the ordinary manner.

Test for Grape Sugar.—Campani recommends (in Fres. Zeitsch., 1872, No. 3, from Arch. d. Pharm., Bd. 198) the use of a saturated solution of basic acetate of lead, mixed with a little dilute solution of acetate of copper. To about 5 cc. of this solution is added a little of the suspected fluid (urine, for instance), and the mixture boiled. If sugar is present, a yellow color is produced, and a yellow precipitate settles after a while. This change takes place if only \( \frac{1}{10} \) per cent. of sugar is present. If more than one per cent. is present, the color of the solution and precipitate is orange red.

A new kind of Urinary Calculus in Oxen.—Dr. Giorgio Roster describes, in the Ann. d. Chem. u. Pharm (Bd. clxv. i., p. 104), a calculus occasionally seen evacuated with the urine of the oxen in the neighborhood of a town in Tuscany. The largest of several received by him weighed 1-02 grm. (15-7 gr.), and the smallest 0-15 grm. (2-3 gr.). These concretions were light, readily floating on water, of a straw-yellow color, or often with a greyish tinge, and easily reduced to powder in a mortar, although too hard to be crushed between the fingers. The powder, examined under the microscope, was seen to consist of transparent prismatic crystals, resembling those of hippuric acid, very soluble in boiling water, but separating from it in crystals upon cooling. These crystals are insoluble in alcohol and ether, and, when heated on platinum foil, first melt and then char, with the evolution of an odor resembling burnt sugar. The ash, which is left, consists of pure oxide of magnesium. Upon analysis, these crystals were found to be the magnesium salt of a new organic acid, called by Dr. Roster lithuric acid, or lithurate of magnesium.

Prussic Acid Tests in Chemico-legal Investigations.—According to the experiments of Almen (Fres. Zeitsch., 1872, No. 3, from N. Jahr. d. Pharm., B. 36, p. 226) and H. Struve (Fres. Zeitsch., 1873, No. 1, p. 14), by far the most delicate test for prussic acid is the blue color which it produces, when in contact with Schönbein’s test paper. (For the preparation of which, vide test for the sulpho-cyanides in saliva, p. 7.) But since the same reaction may be produced by a large number of other substances, as nitric, nitrous and hydrochloric acids, chlorine, bromine, iodine, ammonia, dilute sulphuric acid, chromic acid, potassium chlorate, and many other substances, this test cannot be relied upon as a final test, but is chiefly valuable as a preliminary test. The paper should be exposed to the fumes arising from a mixture supposed to contain prussic acid, air being drawn through the mixture by means of an aspirator. In this manner, it was possible to detect \( \frac{1}{1000} \) grain in seven ounces of urine, which corresponds to a dilution of one part in three million, and, according to Preyer, this test will detect one part in twelve million. This test involves no loss of substance, and distinguishes certainly between the volatile prussic acid or its salts (which are decomposed by carbonic acid at the ordinary temperature of the atmosphere) and the ferro-, ferri- and sulpho-cyanides, all of which contain cyanogen, but are not volatile or decompos-
ed at the ordinary temperature. If the presence of prussic acid is rendered probable by this preliminary test, a portion of the substance should be distilled, in order to isolate the prussic acid from the organic matter, and the distillate tested in the ordinary ways by the silver, iron and sulphur tests.

A modification of the most delicate of these (the sulphur test) is strongly recommended by both Almén and Struve, as follows. The distillate, after the addition of ammonic sulphide to form the sulphocyanide of ammonium, should not be evaporated to dryness at once, because this sulpho-cyanide is volatile to a considerable extent at the temperature of 212° F., and may easily be lost if only a small amount be present. A few drops of sodic or potassic hydrate should be added previous to the evaporation, in order to form the sulphocyanide of sodium or potassium, which are not volatile at this temperature. Then evaporate nearly or quite to dryness, add a few drops of water, acidulate with hydrochloric acid, and, finally, add a drop or two of ferric chloride, when the characteristic blood-red sulpho-cyanide of iron will be formed.

Poisoning by Alum.—A fatal case of poisoning by the ordinary potassium alum is reported in full by Dr. Higuer (Ann. d’Hygiène, Jan., 1873), with the chemical analysis of the tissues and remarks upon the toxicology of alum. It was caused by the accidental ingestion of about an ounce instead of Epsom salts. The symptoms and lesions produced were those of a corrosive acid poison, there being found destruction of the epithelium in the mouth, throat, esophagus and stomach, two gangrenous patches in the small intestine, and also extensive peritonitis.

This is the only fatal case fully reported, although another is mentioned by Taylor, without any details of the case, and a non-fatal case is reported by Orfila, who, in his report, gives, as the result of his experiments and observations, the following conclusions among others:—that, when taken in large doses, death may be caused by alum in man, if vomiting and purging do not take place; and that it acts much more severely upon persons afflicted with chronic gastric disease than upon others. Both of these conditions existed in the patient whose case is reported.

(To be concluded.)

The Hospitals.

BOSTON DISPENSARY FOR DISEASES OF THE NERVOUS SYSTEM.

Report of 211 Cases, by D. P. Lincoln, M.D., Physician in charge.

This institution was opened in May, 1872, and the present report is based upon the cases received within the first thirteen months, seven very recent ones being omitted. A few, not strictly proper subjects for treatment by the Dispensary, were received for special reasons; they are noted in the last few lines of the table.

The number of curable cases which left before any benefit could possibly be gained, is much to be regretted, especially in those instances where neglect must involve the crippling for life of a young child
affected with paralysis. It will be noticed that in some of the selected cases described below, no account of treatment is given; such are cases where the patient came only once or twice.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Relieved</th>
<th>Not relieved</th>
<th>Left</th>
</tr>
</thead>
<tbody>
<tr>
<td>Myalgia</td>
<td>18</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Muscular atrophy</td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Rheumatism</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Congestion of cord</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Congestion of plexuses, &amp;c.</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neuralgia</td>
<td>6</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Hemicrania</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hemidrosis</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Anaesthesia cutanea</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impotence</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Incontinence of urine</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Hemiplegia, R.</td>
<td>1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Hemiplegia, L.</td>
<td>4</td>
<td></td>
<td>3</td>
</tr>
<tr>
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</tr>
<tr>
<td>Aphasia</td>
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<td>1</td>
</tr>
<tr>
<td>Infantile paralysis</td>
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<td>3</td>
</tr>
<tr>
<td>Myelitis</td>
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<td>1</td>
<td></td>
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<tr>
<td>Locomotor ataxia</td>
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<td></td>
<td></td>
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<tr>
<td>Peripheral paralysis</td>
<td>5</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Post-variolar paresis</td>
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</tr>
<tr>
<td>Epilepsy</td>
<td>5</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Chorea</td>
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<td></td>
<td>1</td>
</tr>
<tr>
<td>Paralysis agitans</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Tremor and spasm of fingers</td>
<td>1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Spasm of thigh</td>
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<tr>
<td>Torticollis</td>
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<td>Asthenia</td>
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<td>Mental derangements</td>
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<tr>
<td>Vertigo</td>
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<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Insomnia</td>
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<tr>
<td>Palpitation</td>
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<td></td>
</tr>
<tr>
<td>Deafness</td>
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<td></td>
<td>1</td>
</tr>
<tr>
<td>Dyspepsia</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Saturnism</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Alcoholism</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Injury to joint and other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>surgical lesions</td>
<td>4</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Leucorrhœa, eczema, bronchitis</td>
<td>4</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>94</td>
<td>15</td>
<td>78</td>
</tr>
</tbody>
</table>

To these add seven very recent cases, and eighteen referred to other ambulances, making a total of 211.

AFFECTIONS OF THE MUSCULAR SYSTEM.

Myalgia, strictly so called, is almost invariably relieved, or cured, by one or a few applications of the faradic current. The table in-
includes, under this heading, perhaps rather loosely, a few cases of pain
and weakness due to strain of muscles or aponeuroses, and to Colles’s
fracture. The following account is somewhat remarkable:—

Case 1.—W. W., gardener, æt. 57. Has been treated nine years
for muscular rheumatism, contracted through exposure to the weather
while in the U. S. Army. For two months past, has been unable to
work. The anterior border of the left cuneiform, near its middle, is
the seat of severe pain, which is excited, first, whenever he makes the
motion of putting his coat on; second, when he flexes the forearm;
third, when a portion of the inner aspect of the biceps is touched,
which was the original seat of his pain. A galvanic current was
applied as follows:—From biceps to hand, xxx. cells, five minutes; from
edge of trapezius to hand, xx., five minutes; from spinal attachment
of trapezius to hand, xx., three minutes. Immediately afterwards, he
could execute all the movements of the hand and arm without pain,
whereas, when he came in, he could scarcely move those parts at all.
He came again in a week, and the cure seemed to be permanent.

In a certain number of cases, congestion of the roots of spinal
nerves, or of the plexuses, may be assumed to be present. The spine,
or a plexus, may be tender; there is much pain, weakness, numbness
and formation in the affected limb. Two such cases, originating in
the concussion of violent falls, have been greatly benefited by the use
of both orders of the current; one of these is here subjoined.

Case 2.—T. W. B., tailor, 39. May 11, 1873. Fell on the ice last
February, striking back of head and shoulders, and remaining insensible
for some minutes; on coming to, he did not regain the power of mov-
ing his limbs for twenty minutes. Has done very little work since;
every attempt has brought on pains, tingling sensations, and debility,
specially in the muscles used in sewing, but also in the other limbs.
Shooting thrills of “numbness,” and sometimes of heat, through
limbs.

S. P.—Great debility is shown in his gait, and the grip of his left
hand is weak. Totters slightly when eyes are shut. Senses:—Touch
in left leg diminished; left hand (finger pulps), one inch; right, normal.
Pain, tickling, heat, normal. Occasional chilliness in limbs and, when
he rises from a stooping posture, slight shooting pains in the thighs.
Much lameness in shoulders; tenderness of cervical vertebrae. No
motor paralysis, no ataxia and no girdle sensation. Galvanism to
spine and cervical plexus and limbs.

May 18th.—Tactile sense, left hand, one-third and one-quarter inch;
right, one quarter inch.

May 28th.—Reduced still further, viz.: to one-sixth and one-fifth
respectively.

The muscles of the neck and shoulder were faradized a few times
with much benefit. Discharged in July, tolerably well, but rather
feeble.

PROGRESSIVE MUSCULAR ATROPHY.

Case 3.—W. M., clerk, æt. 35. His legs are very feeble, and greatly
wasted; he can walk only ten minutes at a time. The arms are much
less badly wasted; the interosseous muscles and the balls of the
thumbs are pretty well nourished. The faradic current acts upon all
these muscles with a force proportionate to their apparent bulk. The
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disease commenced a year ago, when he suffered much from pains in his legs for a time; he frequently has pains in his feet when he stands too long, as is required by his occupation. Networks of fine cutaneous bloodvessels are seen above the ankles. He never suffered from cramps, formication, or anaesthesia. It is worthy of remark, that he suffers much from somnolence and low spirits; he is very easily moved to weep. There is no ataxia. He did not return for treat-ment.

HEMIPLEGIA.

Case 4.—J. W., æt. 2 years, 3 months. Was a very healthy child till the attack. Six months ago he was suddenly seized at eleven in the night, with vomiting and high fever. Next morning "he could stand, and I think he had the use of his hands; he took the drink out of my hand." At noon, he was found by his mother lying in a chair, looking as if he were dying, with a pale face, eyeballs rolled up, "low" pulse, feeble consciousness, convulsive movements of right hand and leg. This condition of things lasted for at least a day and a night. When he got a little better, his hand and leg were quite useless; it was a month before he could crawl, and a month longer before he could walk. No further gain was made after these two months. At present he halts a little in running, his hand is quite feeble, and the arm is decidedly emaciated. Reaction to the faradic current, good. His mother did not bring him again.

LOCOMOTOR ATAXIA.

Cases 5 and 6.—Catharine L., æt. 18, and Jeremiah L., æt. 14, are remarkable, as instances of locomotor ataxia occurring in a brother and sister. The rest of their family are stated to have been perfectly healthy persons. The cause assigned by the relatives is bathing in salt water, in which both children indulged themselves to great excess, eight years ago; it appears, however, that the girl had already begun to suffer from tremor and awkwardness in the use of her hands, many months before she bathed at all; the boy began to experience a difficulty in walking, after two or three months of bathing. Their gait is thoroughly atactic; they stoop forward and carefully fix their eyes on the floor in front of them; can walk a mile at the furthest. When their eyes are closed they are unable to stand. Motions of the arms and legs, which they perform with tolerable accuracy while their eyes are open, or by daylight, fail, or are very badly done, if they are prevented from seeing. There is a good deal of muscular force in all the limbs; it is quite hard to flex or extend the legs of the boy, while he is making resistance, although when he walks, he presents a very picture of feebleness. So much is said, to justify the application of the term "locomotor ataxia." But it should be added that the remainder of the group of symptoms, commonly observed in this disease, is less strongly developed. No "lightning pains" have been felt. The boy reads type at the normal distance; the girl at half the normal distance. There is no diplopia; no strabismus; no failure of the muscles of the eye; the pupils are not dilated. Sensations of numbness or formication are absent. The girl "can feel when there is a wrinkle in her stocking," and can put her finger upon the thick sole of her shoe, pretty nearly at the spot where I tap it with a pencil; the boy feels
the touch of two points, at a distance of two inches on the naked sole. On the fingers, tactile sensation is weakened, the points being felt only at one-third or one-half of an inch asunder. Pricking and tickling are plainly felt; the reflex jerking of the leg is normal in the girl, but violent in the boy. It is almost impossible to make the muscles of the legs contract, by the application of faradic stimulus to the peroneal nerves; this condition is more marked in the girl's case. The functions of the bladder and intestine are unimpaired. The arm muscles respond properly to the current, although the grasp of the hand is decidedly weak, perhaps one-half as strong as it should be. The boy is little emaciated; the girl is quite meagre, and has lateral curvature of the spine. Both are intelligent; their speech is hesitating, but distinctly articulated, suggesting a possible weakness and irregularity of the expulsive action of the chest, but not paralysis of any vocal organ. When the girl talks, her face moves in an exaggerated grimacing manner, which reminds one of the involuntary exaggeration of the motions of the legs in walking. The inference is readily drawn, that the posterior spinal roots are but slightly and secondarily affected, and that the disease is not of the "ascending" type. As respects the abolition of the faradic reaction, this is certainly an unusual symptom, and very curious when taken in connection with the retention of voluntary muscular power. To produce the galvanic reaction in the peroneal nerve, twenty-five and thirty cells were required, ten of which were sufficient in the case of a healthy man. For the girl, a rather weaker current sufficed. The flexors of the heel, although their reaction is very poor, preponderate slightly, giving to the feet the position of a talipes equinus, which is easily reducible. The boy is the worse of the two in this, and in most other respects. It remains to be said that a dozen applications of the galvanic treatment entirely failed to relieve these patients. Both have grown worse within a year.

EPILEPSY.

The following cases have interest on account of their apparent causation.

Case 7.—C. A. J., shoemaker, æt. 20. General health, fair. "No relation of his ever had fits." Practised self-abuse for the first time in October, 1871—about five times in all; the epileptic attacks commenced in November, and have occurred once or twice a week ever since, except during one month, when he was taking bromide of potassium; they last twenty minutes, and are not preceded by a warning: total loss of consciousness. Came only twice.

Case 8.—Anna M., type-sorter, æt. 19. Says there are many cases of lead-colic in the type foundry where she is employed. The strength of both hands is much impaired, but the wrists do not droop. The hands, feet and eyelids tremble. Great pallor of face, tongue and hands. Two years ago she had three fits, in which she lost consciousness; at present she has a dizzy turn almost every day, without warning; she sometimes falls, but does not lose consciousness.

ASTHENIA.

With very few exceptions, the patients classed under this head came "to be cured of their nervousness;" by which term may be under-
stood a combination of muscular weakness, want of endurance, loss of mental vigor, general tremor, excitability of temper, and mental depression. The prominent causes, in forty-four cases, appeared to be the following, viz.: Abuse of liquor, tobacco, tea and coffee, and opium, or chloral, 10; self-abuse, 17; overwork and low diet, 11; childbearing, 4; overwork in school, 1; sunstroke, 1. The following are instances of concurrent causation:

**Case 9.—P. S., laborer, æt. 30.** In his own words—he "gets all of a tremble" when anybody speaks to him; is easily angered. "When anybody speaks quick and sharp to me, I fills all up inside, so I can't answer him; I gets a kind of choking; I turns red in the face, and I has to put down whatever I has in my hand." Has practised self-abuse for ten years, two or three times a week; says he left it off three months ago; no local derangement. Uses four ounces per week of the strongest tobacco, for chewing and smoking; but little spirit. By reducing his allowance of tobacco to one-fourth, and taking a pill of oxyd of zinc (gr. ij.) thrice a day, he recovered almost wholly in the course of a week; professed himself well, and did not come again.

**Case 10.—L. K., slater, æt. 29.** Excesses in drink, venery and the use of tobacco. Stands unsteadily; hands tremble when he tries to close them tightly; palpitations at night; talking in his sleep; depression of spirits. Gave up his tobacco for the most part; took 50 grains of bromide of potassium daily, and made great and rapid improvement.

In several cases galvanism was applied to the spinal cord; it acted in its usual manner, often producing an immediate sense of relief and invigoration which lasted for a day or two. Protracted applications (lasting fifteen or twenty minutes) have been made by way of experiment; as far as tried, the experiment appears fully justified by results.

Galvanization of the head is known to be capable of relieving local distress of various sorts, of which the following may serve as specimens:

**Case 11.—M. O'D., student, æt. 17.** Has been a year in his seminary. Three months ago, began to suffer from headache, and a wearing pain in his eyes; the lines of the printed page ran together when he looked at them; he had to give up study. He cannot read fifteen minutes, at present, without a painful oppression over the brows. A tolerably strong galvanic current was passed from his forehead to one hand during three and one-half minutes. After this, he felt "a lightness" in his head, which in the course of twenty minutes gave place to a sense of relief from the oppression and tension. The routine of his seminary is as follows: Sleep and toilet, 9 hours; religious exercises, 1 hour; meals, 1 hour, 10 minutes; recreation, 2 hours; study and recitation, 10 hours, 50 minutes. No gymnastics. Half-holiday once or twice a week.

**Case 12.—C. B., bar-tender, æt. 37.** Drinks very little; appears sober. Over-work, irregular sleep, wet feet, for three months past. Of late, his head has felt heavy and hot, and has ached severely. Five days ago (i.e., August 23, 1872), his face was suddenly paralyzed on the left side, while the right became numb, and the right hand and right half of the face were much swollen. This happened on the evening of a most fatiguing day's work. The paralysis had greatly improved when I saw him. A current from five and seven cells was passed dur-
MENTAL DEPRESSION.

Case 13.—Mrs. A., &c. 32. Has suffered two months from depression of spirits, disturbed sleep, bad dreams, fits of crying, and a tendency to imagine that people are saying things to harm her. A year ago she was affected in the same way for two months. She talks like a perfectly sensible woman, understands the true nature of her symptoms, and must be considered quite sane. Is six months pregnant, anaemic and constipated. Tincture of iron and laxatives were employed for two weeks, without relief to the mental distress. Inhalation of nitrite of amyl—three drops, once or twice a day—was then commenced, and at the end of two weeks she was quite freed from her low spirits.

The case is mentioned, as recalling similar experiments made by Meynert upon cases of developed melancholia in the Vienna Asylum. Compare also the less positive results in seven cases of mania, melancholia and dementia, treated by the inhalation of nitrous oxyd; by Samuel Mitchell, M.D., in the first volume of West Riding Lunatic Hospital Reports.

It is proper here to express thanks to those whose liberal contributions have sustained the Dispensary. To those whose professional assistance has been freely rendered on its behalf, thanks are also due; among these may be mentioned Dr. E. T. Williams, Assistant Physician; Dr. O. F. Wadsworth, Ophthalmologist; and Messrs. Dunn and Dennett, of the medical school.

8 Beacon Street, Boston.

Report Your Cases.—Every intelligent member of the profession should feel personally bound to contribute to its advancement. In this direction the following remarks, from Dr. Tilt’s Address before the Obstetrical Society of London, are in point, and should be heeded:

“Every now and then there crop up in everybody’s practice ‘representative’ cases—cases which well illustrate a mode of treatment, or confirm some theory, or show the fallacy of another. These are the cases we want, and there can be no excuse for not recording them; for although many of you are too busy to write papers, all can carefully note down the particulars of a case, and we ought all of us to bring ourselves to feel it as a crime to let a little trouble interfere with the careful recording of an important case. If we [this Society] did nothing in the course of each year but to well sift a considerable number of such cases, and to issue them, stamped, as it were, with the seal of authority, we should be laboring most efficiently toward the intelligent reconstruction of medicine; for its imperfection undeniably depends on the deplorable inaccuracy with which cases are collected, if one can call cases the shreds and tatters of half-ascertained facts that we so often meet with in medical works.”

A few weeks ago, we called attention to the report of Dr. Duhring's dispensary for skin diseases in Philadelphia. The publication of the first annual report of Dr. Wigglesworth's dispensary in this city affords the opportunity for an interesting comparison in respect to the occurrence and care of this class of affections in the two cities, which has been made in part only in the report under notice. At the time the former was opened, we believe there was no provision made for their special care in Philadelphia, neither hospital nor dispensary accommodation, so there seems to have been a real necessity for its creation; yet the number of patients for the first year was but 425, and during the second year 421. In our own city, when Dr. Wigglesworth opened his dispensary, there were already, well-established and in active operation, two special dispensaries for the treatment of skin diseases; the one in connection with the out-patient department of the City Hospital, the other at the Massachusetts General Hospital. All three are organized and conducted on the same plan, viz.: "the gratuitous medical treatment of the poor affected with diseases of the skin, and the advancement of the science of medicine as far as regards such diseases. Patients who are able, purchase their own medicines; those who are unable to do so, are supplied gratuitously." Dr. Wigglesworth's report shows the number of patients during his first year to have been 823; the number at the skin Department of the City Hospital during the year covered by its last annual report was 952; while at the Massachusetts General Hospital the number of cases (exclusive of several classes of cutaneous affections there treated in the surgical out-patient department) during the past year was 735. Thus against 2,510 cases of disease of the skin treated in Boston in special dispensaries and by specialists in dermatology, Philadelphia can show but 421 cases. This certainly demonstrates the superior advantages offered by Boston as a school for clinical instruction in this department. Moreover, were the same means used to announce to the public and to the medical profession the existence and objects of the two hospital dispensaries as have been employed to establish the private one, there is no doubt that this number might be largely increased.

The report states the intention of providing, at some future time, a hospital in connection with the dispensary, for the treatment of the more serious cases. There can be no question of the necessity of some provision for special hospital accommodation for these diseases. Upon this question, Dr. Duhring, in his report, remarks as follows:—

"Where patients are so seriously affected with obstinate and chronic diseases, but little good is to be expected from a mere dispensary treatment. For example, the patient applies for medical advice, perhaps once or twice a week, and, returning to his poverty-stricken home, finds that it is an utter impossibility for him to carry out the instructions which he has received from the physician. The various conveniences of a hospital are unknown to the small and crowded rooms of the poor, and hence it is not difficult to understand why treatment,
under such circumstances, is so often unsatisfactory. Place these same cases in a well-appointed hospital, with the requisite care and attention which their trouble demands, and they will recover in one-half the time. That all diseases of the skin can be satisfactorily treated upon the so-called dispensary plan is an error; all can be relieved, and very many entirely restored to health, but there are forms of disease continually encountered where hospital accommodation, with competent nurses, alone can effect the desired result. It is for these sufferers that we need a temporary home, where the care so essential for their recovery may be obtained.

"Singular as the statement may seem, there is not a ward or bed among all the hospitals of Philadelphia (excepting the Almshouse), devoted to the treatment of skin disease—in fact, no institution where a poor man may apply and be sure of admission. At some of our hospitals, it is true, grave cases of cutaneous disease are now and then admitted, if there happen to be spare room; but, as a rule, such admission only occurs through some influence with the physicians in charge."

This statement, founded on the experience of an accomplished dermatologist, is literally true of Boston. That some provision should be made in our large and so-called general hospitals for the special treatment of skin diseases, would seem to be a necessity so clear that a plea for its establishment should be entirely unneeded. If those controlling such large charities do not recognize such a necessity, they discriminate between classes of the sick equally deserving, offering to one class the best trained skill for its relief, and refusing it to the other. The interests of humanity and medical education both urge the importance of a claim recognized by nearly all other cities in the civilized world.

The most noticeable features in the character of the patients and the nature of the diseases mentioned in the report are the very small proportion of children (but 71) and the almost entire absence of those affections which are generally found so difficult to cure and which form so large a class of those who generally resort to such dispensaries, as shown by the following results of treatment. Discharged, well, 499; still under treatment, 32; lost sight of, 292. "The latter class belonged, almost without exception, to the lighter forms of disease. It may safely be presumed that these patients were satisfied with the results of treatment; for it is well known that dispensary patients, when cured, rarely trouble themselves to report the fact. The cases still under treatment are also light cases, none of them belonging to the so-called 'chronic incurables.'"

The dispensary has made a very successful beginning.


In the present edition, this valuable work has been thoroughly revised, in parts re-written, and enlarged by the addition of new matter, causing an increase in the text of about seventy pages, which by no

The May number of this journal, received, contains, in addition to the usual class of articles (see this Journal, May 1st, p. 453) two abstracts from Pflüger's Archiv für Physiologie, by D. Ferrier, M.D., taken from the Journal of the London Chemical Society. One of these is by Pflüger, concerning the "Diffusion of Oxygen and the Process of Oxidation in the Organisms," contradicting Ludwig's statement, based on calculations of the comparative tension of oxygen in the lungs and tissues, "that the oxygen cannot disappear from the blood by diffusion alone, but that it must be used up by some reducing substance in the blood itself, as distinct from the tissues." Pflüger considers the wants of the cell as sufficient to account for the rapid diffusion of the oxygen from the blood to the tissues by the laws of diffusion alone, and finds Ludwig's calculations of the force of diffusion of oxygen from the lungs to the blood over-estimated, and that from the blood to the tissues under-estimated.

The other abstract is from an article by F. W. Dock, on the "Glycogenic Function of the Liver and its Relation to Diabetes," giving the results of some investigations on this subject which are not as yet completed.

BOOKS AND PAMPHLETS RECEIVED.


Lijeros Apuntes sobre La Embriaguez, Considerada como Enfermedad por Dr. Enrique A. Frimont. Vera Cruz. 1873. Pp. 28.


Abstracts and Intelligence.

Antagonism between Opium and Belladonna.—Dr. Johnston (Hospital Reports, Shanghai, March, 1872) has had great experience of opium poisoning and the ill effects of opium-eating. During the last seven years, he has treated upwards of three hundred cases of opium poisoning. He first employed atropia in 1869. He employed it hypoderminically in the severer cases, where the patient is profoundly comatose. In milder cases, emetics, the stomach pump, cold douche and constant exercise are generally sufficient. It is in the worst cases, that atropia displays its wonderful effects; for instance, where the pupils are firmly contracted to a pin's point and immovable, the conjunctiva and cornea insensible to touch; the face pale, the lips, eyelids and nails livid; the pulse weak and irregular; the breathing slow and stertorous; the extremities cold. In such cases, he usually injects hypoderminically half a grain of atropia. Within ten or twenty minutes the pupils begin slowly to dilate, and, after an hour or more, the face becomes flushed; the breathing soft, without stertor; and the pulse stronger. Within two hours, the full effects of the drug (atropia) are manifest, viz., widely dilated pupils, flushed face, hot skin, tranquil, slow breathing, diminished frequency and increased strength of pulse, followed by calm and tranquil sleep, from which the patient is easily awakened after three or four hours. If, within two hours, the first dose fails to dilate the pupils, flush the face, and render the breathing slow, steady and tranquil, he repeats the injection. In cases where the coma is not profound, he first employs a quarter of a grain of atropia, repeating the dose if the first be insufficient. He says, "I have observed very sudden and very unfavorable changes set in rapidly, even in the mildest cases of opium poisoning. This has happened so frequently, that I have come to the conclusion, whenever there is contraction of the pupil, and great drowsiness, after the evacuation of the contents of the stomach, it is always advisable to administer a small dose of atropia. I may remark, that in no instance have I seen any bad effects following the subcutaneous injection of atropia."—London Medical Record, April 9, 1873.

A New Ecraseur.—Professor Dittel is at present making some experiments with a new and original kind of ligature which he applies to the removal of tumors and operations for fistula ani. The material employed is rubber, such as is commonly used by surgeons for drainage tubes. The tumors to which this method is especially applicable are those of the female breast and angiomas. In operating, the tumor should first of all be well circumscribed, in order that the ligature may be well applied; the rubber, having been moderately extended, is then applied around the base of the tumor, firmly tied, and left to itself. The ligature, by virtue of its elasticity, exerts a continuous pressure upon the arteries which bring nourishment to the tumor, thus causing it to atrophy, and finally severing it from its attachment. The surface that is left is covered with healthy granulation, and there is no discharge. When the ligature has cut through the base, and the
tumor has fallen off, the ligature is found in the shape of a ring, lying on a smooth surface of healthy granulations. If it should be found difficult to isolate the tumor, an artificial base can be made by transfixing the tumor with needles, and applying the ligature below them.

Dittel, while giving the preference in most cases to the knife, claims several advantages for this plan, which are not possessed by the eraser of Chassaignac, or the galvanic cautery. Among these advantages may be mentioned the very small amount of hæmorrhage, as well as pain, the very small discharge which accompanies the process of separation, the cleanliness of the wound left behind, and, last of all, the cheapness of the tube.

In the case of fistula, the ligature will have cut its way through in from eight to fourteen days, and is found by the patient in his bed in the form of a ring—Letter from Vienna in the Irish Hospital Gazette.

Correspondence.

Malapraxis.

Messrs. Editors,—During the recent epidemic of smallpox, I was requested to vaccinate an infant four weeks old, said to be free from all disease, but very small and imperfectly developed. The child nursed well, and the function of digestion was well performed. Finding the upper arm rather puny, I decided to introduce the virus into the leg, in accordance with a custom which prevails in certain parts of Europe. The vaccine vesicles appeared in due time at the points scarified, and were accompanied by less than the usual amount of cutaneous inflammation. Upon the third day, however, the child began to evince signs of severe constitutional disturbance, such as fever, loss of appetite, &c. It continued to sink slowly, without showing symptoms of any constitutional disease, and died on the ninth day.

The case excited considerable interest in the vicinity, the family and neighbors arriving at the conclusion that death resulted from the selection of the leg, instead of the arm, as the place for vaccination. From the menacing looks and expressions encountered when the attempt was made to obtain an autopsy, I was led to suspect that an action might be brought against me for malpractice, and, being curious to ascertain whether my deviation from the customary method of performing vaccination could involve me in a charge for malapraxis, I was led to consult the standard authorities on medical jurisprudence.

The result of these researches was not particularly reassuring, for I found that it had actually happened in the United States that an action had been brought, and damages recovered from a medical man, under somewhat similar circumstances.

In the case referred to (Taylor, Medical Jurisprudence, ed. 1865, p. 502), some inflammation of the skin followed the operation, which, it was alleged, was performed nearer the elbow than usual. I append the extraordinary ruling of the judge on this occasion:

"In performing the operation of vaccination or inoculation, the physician is liable for all consequences, if he neglects the usual precautions, or fails to insert the virus in that part of the arm usually selected for the purpose; notwithstanding many other parts of the body might be proved to be equally and even more suitable locations."

In view of the above decision, my only consolation is derived from the hope that an ability to take the poor debtor's oath may tend to effectually ward off any attack upon my purse.

Yours with respect,

Rusticus.
Medical Miscellany.

M. Broca recommends the use of digital pressure on the main artery of the limb as the best means of relieving muscular spasm in cases of fractures.

Sir William Gull has been presented by the Empress Eugenie with a costly gold box, bearing the Imperial cipher in diamonds, and containing a pair of sleeve-links worn by the late Emperor Napoleon.

A chair of normal and pathological histology has been founded by the Spanish republican government in the University of Madrid, and endowed with a salary of 5,000 pesetas (£210). The medical faculty of the University of Valencia has protested against the establishment of a similar chair in that institution, on the grounds, inter alia, that the subjects are already taught by the several professors.

For upwards of forty years the ipecacuanha plant has been cultivated in the Royal Botanic Garden, Edinburgh; but it is only recently that the plant has been propagated. The continued destruction of the ipecacuanha plant in Brazil, and the risk of scarcity in the supply of this valuable remedy for dysentery in India, has called attention to the desirability of introducing its cultivation into the British possessions in India. Great numbers of the plant have, therefore, been sent from Edinburgh, and extensively distributed in India.—Medical Times and Gazette.

Female Doctors.—The Pharmaceutical Journal quotes the following couplet from the “Nugae Canoreae Medice,” where the poet laureate of the Edinburgh New Town Dispensary predicts—

“An' when the leddies git degrees,
Depen' upon 't there's nocht 'll please
Till they hae got oor chairs an' fees,
An' there's an en' o' you an' me.
For a' that ken the woman craiter
Mann own it is her foremost faiur
To tak' to lectorin' by natur';
An' hoo she'll do 't ye sure 'll see.”

Beneficial Influence of Ammonia in Silvering Establishments and Others Where Mercury is Used.—According to M. Meyer, ammoniacal gas has exerted a most happy effect on the health of the workmen in the great looking-glass factory of Chauvy. Having observed by chance that the penetrating odor of this gas modified the suffocating odor of the workshops, he has directed, since 1868, that the floors of the various rooms be watered every evening with liquor ammonie. About half a litre is found to be sufficient for the purpose. The explanation is not very clear, but he vouches for the good that results from it.—La France Médicale, March, 1873.

The Clinical Society.—The last meeting of the session took place on Friday of last week, when several papers were read which gave rise to considerable discussion. A contribution by Dr. Greenhow, on the treatment of a case of diabetes by means of skimmed milk, was followed by a sharp passage of arms between Dr. Pavy and Dr. Donkin, which led to the protest of the President. Dr. Pavy expressed his utter disbelief in the skimmed milk treatment of disease; and said that, after a lengthened trial, he had come to doubt the good results alleged by Dr. Donkin to have been obtained in that gentleman's hands. He questioned the propriety of the author of the paper in lending his position to countenance the treatment by skimmed milk. Dr. Donkin, in reply, offered facilities for inquiry into the cases which had been cured or alleviated by the method of treatment which he advocated.—British Medical Journal.
Diagnosis of Phosphorus Poisoning by the Urine.—Dr. Poulet (La France Médicale) mentions the case of a man, aged 65, who had been treated for two months for a supposed degeneration of the liver, with anemia. Dr. Poulet examined the urine by adding strong nitric acid to it, and evaporating in a porcelain capsule over a spirit lamp. When the temperature was lowered the contents of the capsule became all at once inflamed, so that the capsule looked like a ball of fire. The residue, on analysis, gave all the reactions of phosphoric acid. Dr. Poulet comes to the conclusion that when phosphorus is taken into the system it is eliminated by the urine in the form of hypophosphoric acid, and that the method of analysis above described should be made use of in cases of suspected poisoning by phosphorus.—Dublin Medical Press and Circular.

NOTES AND QUERIES.

"A Country Doctor" is congratulated upon his powers of inferential deduction, but advised to re-read the sentence referred to, by the light of universal experience, according to which every disease of the skin, from acne to zoster, was, during the "panic," considered, or at least feared, by the people as being probably smallpox.

E. W. J.

Are not the "Two Cases of supposed Tubal Pregnancy," referred to on page 515 in the Journal of June 6th, better explained if classed under the head of Pelvic Haematocele? I will refer the reporter to vol. V. Trousseau's Clinical Medicine as containing one of the best articles upon this topic.

J. O. Whitney.

Pautucket, R. I., June 23, 1873.

Disgusting Exaggeration.—"An enormous number of autopsies daily, at least ten"! Vienna Correspondent of the New York Medical Journal.

When will physicians cease to talk of their "infinite number of cases," "vast many instances," and the like? How can one be trusted in other matters who talks so loosely in this?

Ergotism.—Some weeks ago, any one who had seen a case of ergotism was requested to describe it. Once more, the inquirer would ask the description. Has any physician ever seen any bad effects from the use of ergot? How long had it been used and in what doses? Please answer.

An Aurilave.—An instrument by this name is advertised in the shops to clean cars out with. They used to tell us that nothing smaller than the little finger should be put in the ear.

Why.

Answer.—Because anything smaller than the little finger has a tendency to inflame the lining membrane of the ear. The frequent use of the aurilave will probably be followed by suppuration, and, finally, by deafness.

Mortality in Massachusetts.—Deaths in fourteen Cities and Towns for the week ending June 21, 1873.


Prevalent Diseases.—Consumption, 42—pneumonia, 22—scarlet fever, 15.

Five deaths from cerebro-spinal disease are reported.

George Derby, M.D.,
Secretary of the State Board of Health.

Deaths in Boston for the week ending Saturday, June 28th, 102. Males, 59; females, 43: Accident, 4—apoplexy, 2—aneurism, 1—inflammation of the bowels, 1—disease of the bladder, 1—bronchitis, 2—inflammation of the brain, 2—disease of the brain, 5—cancer, 2—cerebro-spinal meningitis, 2—cholera infantum, 6—consumption, 14—convulsions, 1—debility, 1—diarrhoea, 2—dropsy of the brain, 3—dysentery, 2—epilepsy, 2—erysipelas, 1—scarlet fever, 6—typhoid fever, 5—disease of the heart, 2—disease of the kidneys, 2—inflammation of the lungs, 9—marasmus, 1—measles, 1—necrosis of leg, 1—old age, 4—paralysis, 1—prostatitis, 1—premature birth, 1—rheumatism, 1—pyaemia, 2—disease of the stomach, 1—syphilis, 1—tubes mesenterica, 1—ulcers of stomach, 1—whooping cough, 2—unknown, 2.

Under 5 years of age, 41—between 5 and 20 years, 9—between 20 and 40 years, 22—between 40 and 60 years, 10—over 60 years, 11. Born in the United States, 65—Ireland, 24—other places, 13.
THE RESULT OF TWO POST-MORTEM EXAMINATIONS, PERFORMED AT THE SAME TIME, SIDE BY SIDE, IN THE SAME ROOM, THE ONE ILLUSTRATING THE PATHOLOGICAL ANATOMY OF MALARIAL FEVER, AND THE OTHER OF YELLOW FEVER.

By Joseph Jones, M.D.
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The following post-mortem examinations performed upon a subject of malarial fever, and upon one of yellow fever, simultaneously, in the dead house of the Charity Hospital of New Orleans, are selected from the records of the numerous autopsies performed in several of the Southern States during a series of years, in the investigations which I have instituted upon the nature and treatment of these diseases.

Case.—Pernicious Malarial Fever.—Native of Austria, stout, full form; entered Ward 14, Charity Hospital, in a comatose condition; complexion, jaundiced; pulse, rapid and feeble; temperature of extremities, depressed, of head and trunk, elevated several degrees above the normal standard; respiration, labored and embarrassed; urinary excretion abundant and without albumen.

Sinapisms and the free use of quinine and stimulants failed to arouse the patient, and death took place within 24 hours after his entrance into the hospital. Died October, 1871.

Autopsy, twelve hours after Death.—Exterior.—Skin jaundiced, but to a much less degree than in yellow fever. Skin of dependent portions of body mottled, from capillary congestion, but to a less marked degree than in yellow fever. The cut surface of the muscles presented a purplish hue, and the change to the arterial hue when exposed to the atmosphere, was much slower and less perfect than in yellow fever. Putrefactive changes slow.

Head.—Bloodvessels of brain congested, but no structural alterations of the membranes or structures of the brain were observed.

Heart.—Normal in color, presenting the deep red, muscular appearance of the healthy human heart. Muscular fibres of heart, firm and of normal appearance under the microscope. No deposits of oil, as in yellow fever, in the muscular structure of the heart. Cavities of the heart contained dark grumous blood, and large lami...
nated, light yellow, fibrous concretions, attached to the columnæ carnaæ and chordæ tendineæ, and sending off branches into the pulmonary arteries.

Lungs.—Dependent portions congested with blood; otherwise normal.

Stomach.—Contracted; contained a small quantity of mucus, colored yellow by bile. Mucous membrane slightly congested, and ecchymosed. Reaction of stomach, acid.

Intestines.—Normal in appearance.

Liver.—Upon the exterior, slate-colored; and when cut, bronze within. Under the microscope, the liver presented a pale appearance, with little oil or granular albuminoid matter. The liver, especially in the peripheral portion of the lobules, contained masses of the coloring matter of the blood of various sizes. The peculiar color of this liver, could, to a certain extent, be extracted by boiling water. The filtered decoction was of a brownish mahogany color, as if it contained the coloring matter of the blood, whilst the decoction of the yellow fever liver, was of a bright golden color.

The blood, issuing from the cut surface of the liver, remained of a dark purplish hue, and did not change to a brilliant scarlet, as in the yellow fever liver. Careful examination showed that the dark color of this liver was due to several causes, as the deposits of black pigment matter in the portal and hepatic capillary networks, the dark, unchanging nature of the portal and hepatic blood, and the deep greenish color of the bile.

Upon chemical examination, the liver was found to contain animal starch, but no grape sugar.

Gall-bladder.—Distended with more than 1000 grains of thick bile, having a high specific gravity, viz.: 1036. The bile is more abundant in malarial fever, and is of a deeper color, and more inclined to the formation of lumpy masses than in yellow fever. In thin layers, and when added to water, it presents a more decided green color, whilst in yellow fever the bile gives a golden yellow color in thin layers, and when added to water. The difference in the color of the biliary secretion in the two diseases, may be connected with the differences of color in the color of the liver, bile and blood.

Under the microscope (one-fifth inch, Smith & Beck, London), the granular concretions in the bile were found to be composed chiefly of epithelial cells, from the mucous membrane of the gall-bladder, cells from the biliary ducts, and casts of the biliary tubes.

Spleen.—Enlarged and softened. It was impossible to remove the spleen without rupturing the capsule. It resembled a bag filled with softened mud.

Under the microscope, the splenic mud was found to consist of numerous colored corpuscles, variously altered, and masses of pigment matter. No fine oil-globules were observed in the spleen.
Kidneys.—Normal in appearance and structure.

Urinary Bladder.—Distended with reddish brown urine, of acid reaction. Urine free from albumen and urinary casts. Urea abundant, as in the urine of fever. Chloride of sodium in normal amount. There is no diminution of chlorine and chlorides in the urine of malarial fever, as in that of pneumonia. When the chlorides diminish in the urine of this disease, such diminution is clearly referable to fasting.

Case.—Yellow Fever.—Stout German, attacked in the full vigor of health. Suppression of urine during the last forty-eight hours before death. Copious ejections of black vomit. Reaction of black vomit strongly alkaline. Black vomit contained urea and ammonia. Under the microscope (one-fifth to one-eighteenth objectives), the black vomit was found to contain numerous altered blood-corpuscles. No animalculæ or fungi were observed when the black vomit was collected in clean vessels and examined immediately after its ejection from the stomach. The urine collected during the stage of fever, and calm, or depression, presented a light yellow color, and was loaded with albumen and casts of the tubuli uriniferi. Death preceded by symptoms of uremic and biliary poisoning, jaundice, intoxication, delirium, coma and convulsions. Patient died on the sixth day of the disease, October, 1871.

Autopsy, three hours after Death.—Exterior.—Full form, bloated, swollen countenance. Skin of face and upper portions of trunk, of a golden yellow color. Dependent portions of body of a mottled, purplish and yellow ecchymosed appearance. Black vomit running from corners of mouth, and trickling down sides of face and neck. When the muscles were cut, a large quantity of thick blood escaped, which changed to a bright scarlet hue upon exposure to the atmosphere.

Putrefactive changes rapid; the body emits a foul, disgusting odor. The body examined in the preceding observation, although it has been nine hours longer in the dead house, is comparatively free from bad odor. In many cases of yellow fever, especially when the functions of the kidneys have been arrested before death, the vascular system is distended with blood, and the putrefactive changes take place with great rapidity and energy, and sometimes even appear to commence before death, the body exhaling a disagreeable odor.

Head.—Beyond congestion of the bloodvessels of the membranes and structure of the brain, no marks of inflammation or structural alteration were observed.

Heart.—Pericardium greatly congested; the vessels, even the minute capillaries, presenting a beautiful, arborescent appearance, and loaded with colored corpuscles. Heart of a pale yellow and brownish yellow color, as if undergoing fatty degeneration. Structure of heart, flabby and somewhat softened. Numerous oil-globules de-
posed within the muscular fibrillae of the heart. Cavities of the heart contained dark fluid blood free from fibrinous concretions. Blood contained urea, and carbonate of ammonia in abnormal quantities. Bile also was present in considerable quantities. When a drop of the blood was allowed to fall upon a piece of white filtering paper, the central portion in which remained the colored corpuscles, was of a bright red color, while around this extended, by capillary attraction, a bright golden-colored areola. Urea and bile were detected in considerable quantities in the brain, heart, spleen and kidneys. The urea was found also in abnormal quantities in the liver. The brain appeared upon analysis to contain the largest proportion of urea. The fibrin of the blood was almost entirely destroyed, being not more than 0.1 in 1000 parts of blood. Upon standing, the colored blood-corpuscles rapidly disappeared, apparently from the effects of the bile and ammonia.

That bile has the effect of dissolving the colored corpuscles, I have determined by actual experiment. In such experiments, the blood of certain cold-blooded animals, in which the colored corpuscles are large, is the best; the blood of the Congo snake, a reptile which is quite frequently captured in the gutters of the streets of New Orleans, is to be preferred, as the colored blood-corpuscles are of an extraordinary size. I have shown, more than sixteen years ago, that it is possible to demonstrate, by the employment of certain re-agents, under the microscope, that the blood-corpuscles in these cold-blooded animals have a distinct cell-wall. When the bile of yellow fever and of other diseases is added to the blood of the Congo snake or of other animals, the outer cell-wall is rapidly destroyed, and the nucleus liberated; and if the bile be added in sufficient quantities, the nucleus is in like manner dissolved.

Lungs.—Dependent portions greatly congested with blood; otherwise normal.

Stomach.—Mucous membrane of stomach intensely congested, softened and eroded. Reaction of the mucous membrane of the stomach strongly alkaline. The stomach contained sixteen ounces of dark grumous blood, or black vomit, the reaction of which, although removed only three hours after death, was strongly alkaline; and ammonia was present in such large quantities that when a rod, dipped in hydrochloric acid, was held over the mucous membrane of the stomach, or over the black vomit, dense fumes of chloride of ammonia were formed, as if the rod had been held over a bottle containing liquor ammoniae. Chemical analysis revealed the presence of ammonia, and, also, of urea, in the black vomit.

Under the microscope (one-fifth to one-eighteenth objectives), the black vomit was found to consist almost entirely of colored corpuscles, broken capillaries, and cells of the mucous membrane of the stomach, floating in an alkaline serous fluid.
Intestines.—Dark-colored and distended with gas.

Liver.—Yellow color, resembling that characteristic of fatty degeneration of this organ. Under the microscope, the texture of the liver was found to be infiltrated with oil. The liver cells were large, distinct, swollen, and contained much golden-colored oil, in the form of distinct globules of various sizes.

Chemical analysis revealed the presence of fat in abnormal quantities, and also of urea, and of animal starch and grape sugar.

The liver of yellow fever, as far as my observations extend, and according to the observations of Louis and many others, is of a bright yellow color. It is probable that this color, as in the case of that of the malarial liver, varies with the length of the attack and the effects of previous diseases.

The decoction of this liver was of a bright golden color, and very different from the dark, brownish red of the decoction of the malarial liver. The golden color of this yellow-fever liver could be extracted, both by alcohol and water.

This liver was firmer and harder than that of the malarial liver in the preceding case; it contained much less blood, and was much less readily acted upon by liquor potassae and acids. Liquor potassae readily dissolved the malarial-fever liver, and the decoction presented the appearance of venous blood, whilst no such effect was produced by this re-agent upon the yellow-fever liver.

Gall-bladder.—Contained only 100 grains of thick bile, while the gall-bladder in the case of malarial fever contained 1000 grains and over. In yellow fever, the gall-bladder is generally relaxed, and only partially filled, and rarely contains more than 120 grains of bile. In yellow fever, the vomiting is rarely bilious, unless in the very commencement of the disease. The stomach and small intestines are rarely, if ever, discolored by bile in yellow fever, whilst in malarial fever it is common to find the gastro-intestinal mucous membrane thus discolored.

Spleen.—Normal in size and appearance. In many cases of yellow fever, the spleen is neither enlarged nor softened, nor altered in appearance, either upon the exterior or within. There appears to be no special alteration or destruction of the colored blood-corpuscles, in the spleen of yellow fever, as in that of malarial fever.

Kidneys.—Brownish yellow color. Kidneys contained much free fat. When thin sections were made with Valentine’s knife, and examined under the microscope (one inch, one-half, one-third, one-fourth, one-fifth, one-sixth inch objectives), the Malphigian corpuscles and tubuli uriniferi were found to be filled with oil-globules, detached epithelial cells and yellow granular albuminoid matter.

The sudden suppression of urine in yellow fever, which is even of more fatal import than jaundice and black vomit, is due, as far as my observations extend, to those peculiar structural alterations which we have just described, rather than to congestion of the capillaries of these organs.
If suppression of urine in yellow fever were simply due to capillary congestion, or defective innervation of the kidneys, it might be possible to re-establish the excretion by the use of diuretics; but when suppression of urine is once established in this disease, it is permanent, and, as far as my experience extends, cannot be removed by any means heretofore applied. My observations furnish an explanation of the universally fatal character of urinary suppression in yellow fever.

The desquamation of the excretory cells of the tubuli uriniferi, and the impaction of the Malpighian corpuscles and tubuli uriniferi, with granular albuminoid and fibroid material, is the characteristic lesion of those organs in yellow fever in cases of urinary suppression.

In every case of yellow fever, the kidneys are more or less involved, as is manifest from the appearance of albumen and urinary casts and cells in the urine.

Many of the peculiar symptoms of this disease, as, the rapid lowering of temperature, slow pulse, intoxication, coma, delirium and convulsions, the sudden deaths, and even the supervision of copious hemorrhages from the stomach and bowels, are referable to the lesions of the kidneys, established by my investigations.

Suppression of urine favors the supervision of black vomit by the effects of the retained urinary constituents and the products of their decomposition in the blood, and by the consequent obstruction of the bloodvessel system with altered blood, the alkalinity of which has been greatly increased.

Urinary bladder.—Contained only one teaspoonful of light yellow urine, which represented the whole amount excreted during the last forty-eight hours of life. Urine loaded with albumen. Casts, kidney cells and granular albuminoid matter.

New Orleans, La., June 6, 1873.

SECONDARY DIVERGENT STRABISMUS, CAUSED BY AN OPERATION FOR CONVERGENT STRABISMUS AND EXISTING FOR THIRTY YEARS; CURED BY TRANSPLANTATION OF THE INJURED MUSCLE AND DIVISION OF ITS ANTAGONIST.

By HASKET DERBY, M.D., Boston.

It has been justly observed that the cosmetic effect of the operation for secondary strabismus may, as regards facial expression, be considered one of the triumphs of surgery. I have thought, therefore, that the following case might possess interest, even for those not specially interested in ophthalmic matters.

A lady, now fifty years old, was operated on for convergent strabismus of the left eye, at the age of twenty. Her condition, when she consulted me in January last, was substantially what it had been for the past thirty years, and may be best appreciated by a glance at Fig. 1. The left eye diverged some three and a half lines. Its motion inward was greatly restricted, the utmost effort of the inter-
nal rectus only sufficing to bring it one line short of the middle of the palpebral aperture. The vision of this eye was extremely imperfect, fingers being counted at six feet, while no letter of the test card could be recognized. The right eye was hypermetropic, and had normal vision. On some occasions, annoying diplopia would be experienced.

For the relief of this deformity, the operation of simple division of the external rectus had been already proposed to the patient. The injudiciousness of this advice can best be shown by quoting the classic words of von Graefe:

"For all considerable diminishions of mobility, or for entire loss of the same, bringing forward the muscle is the only proper remedy. Even if we succeeded by, for instance, partial excision or excessive setting back, in so reducing the strength of the abducentes as to bring about a symmetrical relation between the amount of movement outwards and the amount of movement inwards, should we be entitled to regard this as a cure, properly so called? Inasmuch as the existing immobility depended, not on contraction of the antagonist, but solely on the fact that the activity of the internus had been circumscribed by too extreme a recession or imperfect union with the bulb, it is evident that the abducentes must be brought into a like condition in order to establish an equilibrium, and what should we then have accomplished? We should have an eyeball immovable in two directions, and more prominent than before. This prominence of the eyeball gives a goggling expression, and thus is often more distressing than the deviation itself; while, in connection with the sinking of the caruncle, it produces a cosmetic effect in no ways allied to that of ordinary divergent strabismus. A correction consisting in the setting back of the antagonist would, even if it were practica-
ble, seem here less desirable than in cases of complete paralysis.”*

The following operation was consequently performed, January 4th of the present year.

The patient was etherized, and, beginning at the inner edge of the cornea, a broad flap of conjunctiva was dissected back towards the caruncle, a distance of six lines. Care was taken to thoroughly remove the subconjunctival tissue, in order that nothing might prevent the healing of the muscle at its new point of insertion. The internal rectus was found reduced in size, attached far behind and somewhat above its old position. It was divided at its insertion, dissected away from its attachments, brought forward and laid upon the cornea, spread out so as to half cover it. In this position it was secured by two sutures through the conjunctiva, above and below the centre of the cornea.

An incision was now made over the insertion of the externus, and this brought into view. A single stout thread was armed with a needle at either end. One was passed into the centre of the insertion, as near the eyeball as possible, and made to emerge through the upper edge of the muscle. The second was passed in at the same point and brought out at the lower edge. The muscle being next divided, just outside the thread, the eyeball was moved readily in any direction by means of the two threads gathered into the hand of the operator. It was rotated as far inwards as possible, so that the edge of the cornea touched the caruncle, and the ends of the thread secured firmly to the opposite temple. A compressive bandage was applied.

Thirty hours later, there had been but trifling pain, and I removed the thread from the temple. Jan. 6th, the remaining sutures were extracted. The muscle, of course, receded in its centre, and left the cornea free. The patient rapidly convalesced, and returned to her home in the West, Feb. 12th. The second engraving shows the condition of the eye. No strabismus existed, and there was excellent motion in every direction.

The operation will be observed to have been a combination of the two methods of “sewing forward” and “transplanting forward” (Vornähung and Vorlagerung).

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Wet-Nursing.—The average mortality of infants one year old throughout France is 18 per 1,000. In the ten departments which chiefly receive les petits Parisiens, the infants whom fashion and morality in France consign to rural wet-nurses, the mortality is 51·68 per 100. In the department of la Creuse, where people marry early and mothers nurse their own children, the mortality is 12 per cent.; in that department (spite of much emigration), births exceed the deaths; in all others the deaths exceed the births; and a gradual depopulation is proceeding in France, which excites the liveliest apprehension of the government.—British Medical Journal, May 17, 1873.

* Archiv für Ophthalmologie, 3, 1, 371.
Progress in Medicine.

REPORT ON MEDICAL CHEMISTRY.

By Edward S. Wood, M.D.

[Concluded from p. 11.]

Phosphorus Poisoning.—From the experiments of Dr. Dybkowsky (Beitrag zur Theorie der Phosphorvergiftung. Hoppe-Seyler, Med. Chem. Untersuchungen, Erstes Heft, 1866) it appears that the action of phosphorus in cases of poisoning must be explained chiefly by the formation of phosphoretted hydrogen, and not by the absorption of the phosphorus as such, nor by its oxidation in the stomach or blood to the form of phosphoric acid. The mistake of those authors who state that phosphoretted hydrogen is not poisonous, has resulted from the fact that they experimented with that variety of the gas made from the phosphide of calcium, which is spontaneously inflammable, so that in reality the products of its combustion, phosphoric acid and water, were administered, and not the gas itself. Dr. Dybkowsky, however, administered phosphoretted hydrogen made by reduction from phosphorus acid, by which a non-inflammable variety is produced, which, administered to animals by injection into the rectum, is rapidly fatal, and gives rise to symptoms and post-mortem appearances similar to those produced by phosphorus itself. Moreover, it was proved that phosphoretted hydrogen is formed by placing phosphorus in blood, and it is probable that it is produced in the intestine from phosphorus by contact with nascent hydrogen. Phosphoretted hydrogen was also eliminated with the breath in certain cases of poisoning by phosphorus, as shown by the reducing action of the breath upon a solution of nitrate of silver, a reaction caused only by phosphoretted hydrogen and free phosphorus, the latter being found absent by the non-luminosity of the breath. At the same time, it is certain that a very small amount of the phosphorus ingested may become oxidized in the alimentary canal, and the phosphoric acid thus produced cause slight irritation, or even corrosion, if oxidized at the expense of the oxygen of the tissues, as happens in rare cases, when bits of the phosphorus adhere to the mucous membrane of the stomach or oesophagus. Again, it is certain that a very small portion of the phosphorus may be absorbed as such, since it is slightly volatile at the temperature of the body, and can be eliminated with the breath unchanged, since, in a few cases in animals poisoned by phosphorus which was introduced into the stomach, the oesophagus having been previously cut and tied, the breath was luminous. From these facts, it appears that the action of phosphorus is almost entirely due to the action of phosphoretted hydrogen, which may be formed either in the intestine or in the blood from that portion which is absorbed unchanged. Its action when in the blood is not quite clear, although a part may be oxidized at the expense of the oxygen of the blood, and a portion is eliminated by the lungs unchanged. If phosphoretted hydrogen be injected into the blood, its action is somewhat different from that when absorbed from the intestine; it invariably produces inflammation or irritation of the lungs.
The action of phosphorus upon the mucous membrane of the stomach is, according to Dr. Hoffman (Ann. d’Hygiène, Oct., 1872, from Vierteljahrsch. f. gericht. Med., xii., No. 2), of two kinds, local and general. The local action is due to the oxidation of a small amount of phosphorus in the stomach, as mentioned above, phosphoric acid being formed, the amount depending upon the amount of oxygen in the stomach; but generally this action is not extensive, the phosphoric acid not being as active as the ordinary mineral acids. The general action is that of fatty degeneration of the glands, taking place without regard to the surface from which the phosphorus is absorbed, and commencing within twenty-four hours after its ingestion or absorption. The glands are swollen and filled with a finely granular substance, appearing whitish by reflected light, and greyish yellow by transmitted. Then the cells become swollen, filling the ducts, the nuclei become less and less visible, and the canal becomes filled with a homogeneous, opaque mass, which is not rendered clear by acetic acid. The mucous membrane itself appears grayish-yellow and slightly thickened, owing to the swelling of the glands. Later, fatty drops exude from the mass which fills the ducts. This mass gradually becomes softer and softer, until, finally, nothing can be seen except a granular detritus, and the mucous membrane then appears yellow.

Experiments undertaken by O. Schifferdecker in regard to the analysis of tissues for phosphorus by means of Mitscherlich’s apparatus (Fres. Zeitsch., 1873, Heft 3) show that by distilling organic substances, or only water containing phosphorus, until phosphorescence is no longer visible in the condenser, only a part of the phosphorus passes over into the receiver, about one fourth of it being oxidized in the retort or flask, and remaining there. The proportion which passes over and can be estimated as phosphoric acid in the distillate is variable, being usually from one-half to three-fourths of the amount originally in the retort.

Combination of the Alkaloids with the Biliary Acids.—W. F. de L’Arbre (Fres. Zeitsch., 1872, Heft 4, from Pharm. Centrallb., 1872, p. 177) has studied the action of the bile and the biliary acids upon the alkaloids, and has found that the alkaloid and the biliary acid unite with each other, when bile or a solution of a biliary salt is added to a solution of any of the soluble salts of the alkaloids. In the case of strychnia, quinia, quinidia, cinchonia, brucia, veratria and emetia, the compounds formed are with difficulty soluble in water, but are quite soluble in an excess of bile, or solution of biliary salt. The compounds formed with morphia, nicotia and conia are, however, easily soluble in water. The glycocholates of strychnia and morphia, the taurocholate of morphia, and the hyoglycocholate of brucia are crystalline; but the remainder, so far as observed, are amorphous. The difficult solubility of some of these compounds is offered as a possible explanation of the accumulation of some of the alkaloids in the liver, and hence the advantage of choosing that organ in analyses for absorbed organic poisons.

Detection of Digitalia in Chemico-legal Analyses.—Heinrich Brunner (Ber. d. deutsch. Chem. Gesell. zu Berlin, 1873, Heft 3) proposes a new test for digitalia, based upon the fact that this principle is a glucoside, yielding glucose by decomposition. The test recommended is Pettenkofer’s test, concentrated sulphuric acid and bile, or a solu-
tion of biliary acids, being added to the suspected substance. If digitalin is present, it will be decomposed by the sulphuric acid and glucose formed, which will produce the characteristic cherry red or violet color. This test, the author states, is much more delicate than the sulphuric acid and bromine test, which is very delicate when we have the pure substance to work with, but is rarely satisfactory when applied to the extract obtained from animal tissues by the Stas-Otto process. (Extraction of the acid residue of the alcoholic extract with ether, first while still acid, and again after rendering it alkaline.) From the acid residue, the ether removes the largest part of the digitalin as a resinous mass, in which the sulphuric acid and bromine test is rarely successful. A small amount is removed by the ether after the residue is made alkaline; but delphinin is also removed from alkaline solutions by ether, and behaves like digitalin when treated with sulphuric acid and bromine. The residue, obtained after treating about a quart of beer to which was added, in one instance, 0·05 grm. (about \( \frac{1}{8} \) gr.) and in another 0·03 grm. (\( \frac{1}{3} \) gr.) by the Stas-Otto process, did not respond to the sulphuric acid and bromine test, while a small portion of it gave a good reaction for sugar by Pettenkofer's test. This test will serve to distinguish digitalin from vegetable alkaloids, and the physiological test from the other glucosides which behave like digitalin with sulphuric acid and bile.

The Journal de Chimie Médicale (May, 1873) gives the properties of crystallized digitalin, and the process adopted by Nativelle to obtain it from the powdered leaves, a process which can be used, with certain unimportant modifications, to extract it from animal tissues in cases of poisoning. Digitalin crystallizes in short and delicate needle-shaped crystals, and possesses an intense and persistent bitter taste. It is but slightly soluble in water, soluble in twelve parts of cold and six of boiling alcohol of 90°, less soluble in absolute alcohol, and nearly insoluble in ether. It is soluble to almost any extent in chloroform, which is its proper solvent, and serves as a reagent for testing its purity. It is rapidly dissolved by a solution of chloral hydrate, the solution becoming greenish blue in color. The concentrated mineral acids dissolve it, hydrochloric acid producing an emerald green color, sulphuric acid a green, which, if subjected to the action of bromine fumes, changes to a dark red, nitric acid a yellow, aqua regia a yellow which changes to an obscure green, and a mixture of equal parts of sulphuric and nitric acids produces a rose color which becomes changed to a deep violet. When heated on platinum, it melts, swells up, becomes brown, and disappears without leaving any traces. It contains no nitrogen, but is composed of 51·33 per cent. of carbon, 6·85 per cent. of hydrogen, and 41·82 per cent. of oxygen. The advantages of having such a preparation, which has a definite composition and definite properties, are obvious. Seven and one-half milligrams (about one-ninth of a grain) were administered to an adult without any toxic effect being produced.

The method of obtaining it from the plant is as follows. The powdered leaves are digested with alcohol of 50°, filtered, and the filtrate concentrated to a weight about equal to the weight of the leaves originally used. This fluid is diluted with about three times its weight of water, when a fatty deposit is gradually formed, which contains nearly all of the digitalin, mixed with digitin and coloring matter.
deposit is collected on a filter paper, and treated with twice its weight of boiling alcohol of 60°, which dissolves the digitalin and digitin, these being gradually deposited in the form of crystals upon the surface of the alcohol and upon the inside of the vessel, if the solution be placed in a cool place. The crystallization is complete in eight or ten days. These crystals are collected together, washed with a little dilute alcohol to free them from the mother liquor, and then treated with chloroform, which dissolves the digitalin, leaving the digitin upon the filter. The chloroform leaves it, after evaporation, in an amorphous form, but it can be crystallized by treating again with alcohol, and placing in a cool place, when it will crystallize out as before.


Brucia can be detected, either after its ingestion or subcutaneous injection, in all of the fluids and tissues of the body, even in those of the foetus, but it is found most largely in the liver and kidneys. Decomposition of the tissues for three months had no influence upon the brucia. The most delicate test for brucia was found to be Drangen-dorff's modification of the nitric acid test, namely: one-fiftieth of a milligramme (1 mg. = 1/5 grain) was dissolved in sulphuric acid in a watch glass, and a drop of nitric acid allowed to mix slowly with this solution; a rose red color is first produced, changing to an orange, and then to a yellow; stannous chloride or ammonic sulphide produces in this mixture a reddish violet color, if the amount of brucia present equals one-tenth of a milligramme. A solution of iodine in iodide of potassium (Liquor Iodini Comp. U. S.) is the most delicate precipitating agent for brucia, a kermes brown precipitate being produced, if the solution contains $\frac{1}{1000}$ of its weight of brucia, or an orange red one, if it contains $\frac{1}{2000}$. The presence of strychnia does not interfere with the mixed sulphuric and nitric acid test.

Emetia can also be detected in all of the fluids and tissues, but most largely in the stomach, liver and blood. It is partially, at least, eliminated by the kidneys. Decomposition of the tissue destroys the emetia. It was detected in the viscera of cats poisoned with 0.1 grm. (about one and a half gr.) and in some of the organs, if the dose administered were only 0.05 grm. For the detection of emetia, the most delicate reagent is concentrated sulphuric acid which contains molybdic acid. (Each cc. of acid containing 1 mgram. sodic molybdate, "Frohde's reagent.") A red color is produced which changes to a green, if $\frac{1}{2}$ mgram. of emetia is present. As precipitating agents the most delicate are potassio-bismuth iodide, potassio-cadmium iodide, liq. iodini comp., picric acid, and phosphomolybdc acid, any of which will precipitate $\frac{1}{2}$ mgram. of emetia dissolved in 25,000 times its weight of water.

Physostigmina can be detected in the saliva and bile almost immediately after ingestion. It can also be detected in the blood, liver, stomach and small intestines, both by chemical and physiological tests. It could not be found in the blood after the latter had been decomposing for three months. The behavior of physostigmina with
bromine water, is its most characteristic test, a reddish brown color being produced in a solution of the sulphate diluted 10,000 times; in this way \( \frac{1}{3} \) mgrm. can be detected. Calcic hypochlorite (chloride of lime) gives with one-half to one mgrm., a red color after the lapse of a few minutes. Potassio-bismuth, iodide and phosphomolybdic acid precipitate it, if diluted 25,000 times with water, potassio-mercuric iodide (Mayer's reagent), if diluted 5000 times, and chloride of gold, if diluted 2000 times. Contraction of the pupil was not produced in dogs by amounts less than \( \frac{1}{40} \) mgrm.

The method employed for the isolation of these substances from the tissues and fluids was Dragendorff's, namely: to extract the alkaloid from the tissue with very dilute sulphuric acid, filter, and evaporate the filtrate after neutralizing with magnesia; extract the residue with alcohol of 70 per cent. acidulated with sulphuric acid, filter, distil off the alcohol, and shake the acid residue successively with petroleum ether, benzin, and amyl alcohol; then render the acid liquid alkaline with ammonia, and shake again with petroleum ether. Benzin will remove physostigmina from acid solutions and deposit it after evaporation, and petroleum ether will remove the brucia and emetia from the ammoniacal solution, and deposit them after evaporation.

Reactions of Quinia and Morphia.—F. A. Fluecker (Neues Jahrb. der Pharm., Bd. 136), has investigated as to the delicacy of the ordinary test for quinia, and finds that if the fluid be mixed with one-tenth its volume of chloride water, and then a drop of ammonia water added without shaking, a green zone is first formed which gradually extends through the whole fluid when it contains only \( \frac{1}{4000} \) of its weight of quinia.

If bromine be used instead of chlorine, the test is much more delicate, the green color appearing when only \( \frac{1}{7200} \) of quinia is present. If the fluid contains more than \( \frac{1}{4000} \) of its weight of quinia, bromine produces a precipitate instead of a change of color, and hence is not as useful as chlorine in strong solutions. The bromine test should be performed in a test tube filled one-fifth full of the fluid to be tested, and bromine fumes poured into the tube, till the upper portion of the fluid has absorbed enough of the gas to give it a yellow color, while the lower portion remains colorless; then a drop of ammonia water should be allowed to flow down the side of the test tube gently, so as to float on the surface of the liquid and not mix with it. A green layer is thus produced which changes to a blue, the color being more intense and more permanent than that produced by chlorine water.

Morphia solutions treated with chlorine water and ammonia turn first red, and, finally, brown. The limit of this reaction is one part in 1000 in solution, and hence this is not as delicate as the iodic acid and starch reaction, the limit of which is 1 to 10,000.

If both morphia and quinia are present in a solution, the morphia reaction will be first formed, but we can always obtain the quinia test by diluting to such an extent that the proportion of morphia in the solution shall be less than 1 to 1000.

Poisonous Action of Substances belonging to the Benzol Group.—By Dr. Starkow. Journ. de Pharm. et de Chim., Apr., 1873, from Virchow's Archiv, III., No. 4. From these investigations it appears that the nitro-substitution products of these substances, if soluble, are more poisonous than the substances themselves, and produce a special

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action upon the blood. The blood of an animal poisoned with binitrobenzol, if subjected to the action of the spectroscope, shows an absorption band between the red and orange of the spectrum, corresponding to the Fraunhofer line C, in addition to the two normal oxyhaemoglobin bands; reducing agents, such as ammonic sulphide, change the position of this band a little to the right, and ammonic hydrate causes it to disappear entirely. The blood of an animal poisoned with nitrobenzol (mono-), nitro-aniline, or nitro-naphthaline, shows the same band, but if these substances are mixed with the blood outside of the body, the band does not appear immediately as in the case of binitro-benzol, but only after the lapse of several hours. These mono-nitrosubstitution products are less active poisons than the binitro ones, but are much more active than the simple benzol, aniline, &c., or the chlorine substitution products, as chloro-benzol, none of which give rise to the above absorption band, although chloro-benzol when mixed with blood causes a disintegration of the blood globule, and crystals of haemoglobin soon appear. Aniline acts on the blood like ammonia and phosphoretted hydrogen, decomposing the haemoglobin. Nitroaniline acts partly like aniline and partly like binitrobenzol. The sulphate of aniline always decomposes the haemoglobin, haematin being produced, the peculiar absorption bands of which can be seen with the spectroscope, either in the blood of animals poisoned with it, or in blood to which it has been added outside of the body. The chemical action of nitro-glycerine upon the blood pigment is analogous to that of nitro-benzol, and their toxic action is about the same, three grains sufficing to kill a dog of moderate size in two or three days. Nitric and sulphuric acids act on the blood in a somewhat similar manner to the nitro-compounds, the pigment being decomposed and the haematin spectrum produced, an effect which is not caused by hydrochloric or phosphoric acids.

Thus the action of many of the organic nitro-compounds is evidently due to the radical nitryl which they contain, as nitro-glycerine, and the poisonous action of nitro-benzol cannot be due entirely to the formation of aniline within the system, as has been stated by some writers.

Analysis of Tobacco Smoke.—The analyses made by Éullenberg and Vom. (Ann. d'Hygiène, April, 1873, from Vierteljahrsch. für ger. Med.) upset all of the old theories, that the injurious effects of tobacco smoking are due to the presence of nicotine in the smoke. The smoke from tobacco in pipes and cigars was passed first through a solution of potassic hydrate and then through one of dilute sulphuric acid. The former solution was found to contain a mixture of carbonic, hydrocyanic, sulphuric, acetic, formic, metacetic, butyric, valeric and carboxylic acids, creasote, and several hydrocarbons. The acid solution contained rosalic acid, ammonia, traces of ethylamine and many of the pyridine bases, to the last of which the injurious action is due. The bases found were pyridine C_{5}H_{5}N, which is more abundant in pipe than in cigar smoke, picoline C_{4}H_{5}N, lutidine C_{5}H_{5}N, collidine C_{6}H_{11}N, which is more abundant in cigar than in pipe smoke, parvoline C_{4}H_{14}N, cordine C_{10}H_{15}N, rubidine C_{9}H_{15}N, and a residue corresponding to viridine C_{11}H_{16}N. As will be seen, the more volatile of the bases, as pyridine, were most abundant in pipe smoke, while the less volatile, as collidine, were most abundant in cigar smoke.

The physiological action of these bases was not tested separately,
but only that of a mixture of those which volatilize under 160° C., and of those which volatilize between 160° and 250° C. Both of these sets of bases, like nicotia, produced contraction of the pupil, difficult respiration, general convulsions and death; and, upon post-mortem examination, the respiratory passages and lungs were found congested. They do not act as rapidly as nicotia. Those volatile at a low temperature were more active than those which were only volatile at a high temperature, which explains the fact that a larger amount of tobacco can be smoked in the form of cigars than in a pipe.

Bases produced by the combustion of the dandelion, willow wood, stramonium and pure picoline obtained from Boghead coal were also tested, and found to differ in degree only from the action of the tobacco bases, the vapor of pure picoline being poisonous, and producing great irritation of the respiratory passages, slight convulsions, and death.

From the results thus obtained, the authors think that the action of opium, when smoked, is not due to its natural alkaloids, but to similar combustion products, the variation in the action of the opium and tobacco smoke being due to the production of different bases in the two cases.

Reports of Medical Societies.

ESSEX NORTH DISTRICT MEDICAL SOCIETY. MORRIS SPOFFORD, M.D., SECRETARY.

Chronic Inflammation of the Uterus.—Dr. Carleton, of Lawrence, after giving the history and symptoms of the disease and the prevailing views of its pathology, expressed doubt whether it is possible to make a distinct differential diagnosis, which would be at all certain, between the disease affecting the mucous membrane alone, and that involving the parenchyma of the organ. For practical purposes it is sufficient to separate the disease at the internal os, treating it either as inflammation of the neck, or of the body of the womb. The introduction of the sound is the crucial diagnostic test between these two conditions. The prognosis is much more favorable in the former than in the latter case. In treatment, regard must be had to constitutional and hygienic measures, but local treatment is the sine qua non. The methods of local treatment in use were described, but the application of astringents and caustics in solution by means of cotton rolled upon the uterine probe, is to be preferred. Previous to this application, the complete perviousness of the canal must be secured, by means of sponge tents, if necessary; and the pressure produced by the sponge upon the diseased tissue is often of much benefit. Pessaries are sometimes of use when the uterus is retroverted, but this instrument, like all useful means of treatment, is liable to much abuse. Pregnancy is often of much benefit to a diseased uterus, if care be taken during convalescence, that perfect involution of the organ be secured.

The Laryngoscope.—Dr. F. I. Knight, of Boston, present by invitation, made some remarks on the use of the laryngoscope in general practice. He said that all physicians would admit the importance of inspection of a part supposed to be affected, and yet very few had adopted the use of the laryngoscope. This he attributed partly to the
difficulty of acquiring the art of using the instrument without some special instruction, and partly to the confusing multiplication of varieties of instruments, which discouraged one from undertaking the use of any of them.

Dr. Knight said that he hoped that his remarks and demonstrations would induce some of the members to use the laryngoscope, at least for the purpose of diagnosis. One must not expect to operate within the larynx, except after long and patient practice. Before showing the use of the instrument, Dr. Knight said that he would refresh their knowledge of the anatomy and physiology of the larynx, by showing them some dissections, one of the cartilages of the larynx and trachea with their ligaments, and another of the muscles of the larynx. He also showed a beautiful section of the skull, showing the posterior nares, soft palate, lateral walls of the pharynx, and the larynx in situ. He gave briefly the action of the different muscles during respiration and phonation, as now generally understood. He then showed the best form (Türck's) of head reflector, and laryngeal mirror, and demonstrated, upon some of the members of the society, the proper method of using them.

THE TREATMENT OF MALIGNANT PUSTULE.—Dr. Belles has had an exceptionally large experience, as well as a remarkable success, in the treatment of malignant pustule, living in a district of Portugal where large herds of cattle are raised. His method of treatment consists in making a crucial incision across the whole diameter of the gangrenous lozenge, and then cauterizing the incisions with chloride of antimony; the cauterization to be continued till blood ceases to flow. This operation inflicts no pain, insomuch as the gangrenous part is completely insensible, and may be freely laid open without the administration of an anesthetic. In cases in which the incision and cauterization have been put into practice late in the disease, and where the disorganization of the tissue is far advanced, the elimination of the gangrenous eschar which results from the operation is retarded by a local atony of the parts. This can be met with success by the applications of hot cataplasms soaked in wine.—The Clinic, May 24, 1873.

METHOMANIA.—Dr. C. B. Gilbert, in an article under this title, observe. (Detroit Rev. Med., June, 1873):—

"The influence of psycho-therapeutics is too tardily acknowledged, and too infrequently practised. It seems almost incredible that a man could, by mere self determination, resist the destructive power of rabies, when it has once invaded the system to such a degree as to cause constriction of the throat and difficulty of swallowing. But this incredibility will lessen when it is considered that a mental influence potent enough, acting ab initio, to produce a given disease, may also arrest it.

"This truth is forcibly illustrated by the case of Mr. Crosse, who was severely bitten by a cat. Three months afterwards, he was attacked by rabies; and, looking the disease squarely in the face, he determined to throw it off; so, taking his gun, he went in search of game; though finding none, yet every step was accompanied by a mental resolve that he would not succumb to the disease. On returning home at evening, he felt much better, and in the course of a day or so was quite well."
Bibliographical Notices.


Dr. Tibbits’s Handbook certainly deserves a welcome from the medical public, to which it is addressed, and we entirely sympathize with the author in the hope that it will do something towards making every medical man acquainted with the fundamental principles of electro-therapeutics and the use of electrical instruments. That accomplished, the next step will be to do the same for a body of professional nurses, who shall take the details of application off the hands of the busy practitioner, who, otherwise, could make no more use of electricity than now.

The first part of the book is taken up with descriptions of instruments, all of foreign make, and for which we have excellent substitutes on this side of the water. The second part treats clearly and thoroughly of the details of the application of electricity, the choice of electrodes, &c., and it is in this chapter especially that the influence of the teachings of Duchenne are seen, whose chief work, “De l’Électrization Localisée,” Dr. Tibbits is well known to have recently translated.

A few pages might have been added, to advantage, to the chapter on the diagnostic uses of electricity, which comes next, in order that the reader might be left with clearer notions of the important differences, in respect to the electrical reaction of the nerves and muscles, between paralyses of cerebral, spinal and peripheral origin.

Furthermore, other observers do not bear out Duchenne and Dr. Tibbits in the statement that, in cases of rheumatic paralysis of all other nerves except the facial, the electrical reaction of the nerve and muscle does not diminish.

The last part of the book, which is devoted to electro-therapeutics and electro-physiology, is instructive and interesting, but suffers from too much contraction, especially when electro-physiology is the theme.

The best class of unbelievers in such matters as these are best converted by scientific arguments, which, in this case, are not so numerous but that all of them might find a place even in a handbook. He says, for example, p. 109, that “Benedikt contends* that the voltaic current will directly affect the brain and cord,” whereas certainly after the experiments of Erb, Burckhardt and Ziemsen, this is no longer to be considered as a point of contention, but as an established and important fact.

Dr. Tibbits, as well as Dr. Russell Reynolds,† speaks in high terms of the use of frictional electricity in certain cases (hysterical aphonia, some forms of tremor and neuralgia), and the former recommends charging the patient with positive electricity from the voltaic (galvanic) battery, a mode of treatment which is entirely new to us here.

Some excellent plates, copied mostly from Duchenne’s work above alluded to, are printed in the text.

* Italics are ours.
† Lectures on the Clinical Uses of Electricity. Lindsay & Blakiston.

The author of the above pamphlets is one of those writers who attribute all adverse criticism of their works to malicious persecution on the part of their reviewers. Dr. Freke having published, in 1848, certain views on organization and life, his critics were not slow in pointing out their want of novelty, while admitting that the treatise would be read with interest; "new relations being developed among ideas that were previously familiar, and various suggestions being thrown out which may be profitably pursued." Exasperated at this reception of his labors, and failing to obtain satisfaction from the medical press, Dr. Freke published his "Appeal" in 1862. To this he adds a postscript, in 1872, addressed "to the physiologists of America," being induced thereto by an intimation that active measures have been adopted by his persecutors "to render as abortive in America anything I may hereafter publish as my former publications have been already so rendered in England." He also informs us that one of his former critics, whom he compares to "an assassin who has once inflicted a stab in the dark," "is at the present moment (Oct., 1872) traversing the United States of America." Suspecting that this gentleman may make an effort to ruin his reputation as an author in this country, he appeals "to the generosity and sense of justice of American physiologists against such cowardly, assassin-like persecution."

To decide upon Dr. Freke's claim to originality is not altogether easy. From an examination of his views as contained in the pamphlets before us, it would seem that he has done little more than clothe old ideas in new language, but the vague and abstract terms which he employs and the absence of all concrete illustrations of his meaning render it difficult to pronounce with certainty upon this point.

Should Dr. Freke venture upon further publications, as he intimates his intention of doing, it is to be hoped that he will bear in mind a fact which he has thus far seemed strangely to forget, viz.: that questions such as he discusses, can only be settled by careful and close reasoning applied to observation and experience.

BOOKS AND PAMPHLETS RECEIVED.


Abstracts and Intelligence.

Adherent Placenta retained three weeks without Putrefaction.—Specimen exhibited before the Morgan County Medical Society, with remarks, by David Prince, M.D., Jacksonville, Ill.—The report of Dr. H. Wardner, of Cairo, in the number of The Examiner for March 15, induces me to report the following case, in which the placenta maintained its attachment and its vitality for three weeks from the time of the expulsion of a five months' fetus.

Mrs. M., of hysterical temperament, but corpulent habit, mother of several children, patient of Dr. H. Jones, became unusually large after conception, and continued to have sanguineous discharges with the return of each monthly period. Doubt was thus thrown upon the nature of the case until one morning, going across the yard for what the patient supposed a call for urinary evacuation, a sudden pain seized her, and a fetus was expelled. Grasping this through her clothing she walked back into the house and placed herself upon a lounge.

Owing to the sickness of Dr. Jones, the care of the patient was imposed upon me. About half an hour after this catastrophe, the fetus was found attached by the umbilical cord, but a very slight force detached the cord so that the best guide to the placenta was unfortunately lost.

The uterus was explored with a placenta forceps, and none being found it was supposed that it must have been expelled and thrown away unobserved. The patient rapidly recovered and walked about the house, supposing that all trouble had passed by.

Just three weeks from the time of the abortion, this lady was overtaken by a profuse hemorrhage which subsided spontaneously. The horizontal posture was carefully maintained, and ergot was given. In a few hours a placenta, with its membrane complete, only showing a rent, was expelled in connection with coagula.

There was no more hemorrhage; and though the skin was very pale from loss of blood, the recovery was speedy and complete. The placenta was altogether free from putridity; was compact, and destitute of apparent disease. One margin was dark with the presence of coagula, indicating the probable fountain from which the blood had gushed.

The location of the placenta upon the inner uterine surface cannot be certainly made out; but it is probable that it was so far toward the neck that the margin was detached by the expansion of the uterus with each monthly congestion.

It is possible that, in connection with the monthly hemorrhages, there may have been such a change of the uterine surface of the placenta as to destroy the line of cleavage.

If the stem of a leaf is wounded just at the line at which it will subsequently separate from the branch, it may readily be conceived that the healing process may obliterate this line of separation, so that the leaf, instead of falling off at the proper time, will maintain its vitality for a long period, and perhaps finally shrivel up without separation.

The change which occurs in the leaf-stem may occur in the embryo-stem, permitting its base, the placenta, to maintain its vitality for several weeks after the falling of the embryo-leaf.
Dr. Hodge, in his folio work on Obstetrics, says that there is abundant proof that the placenta has adhered and maintained its vitality for weeks and even for months after the expulsion of the fetus.

One of the practical inferences from this case is that it is not imperatively necessary to remove an adherent placenta by forcible means. Like the base of a polypus, it may be left to shrivel and separate by a natural process, which saves the uterus from the infliction of laceration and contusions.—Chicago Medical Examiner.

Transfusion of Blood.—This operation has been performed recently in London in two cases, both with a certain measure of success. The first case was one of leukemia, under the care of Dr. Andrews, at St. Bartholomew's Hospital; the second operation was performed on a purpuric girl, a patient of Dr. West, at the Hospital for Sick Children, who was dying from loss of blood. The operation in the first patient was successful, and will probably be repeated once, at least, in the course of the next month or two; while in the other case, though terminating fatally a few hours after the operation, the patient was undoubtedly temporarily, and almost against hope, relieved by the adopted means.—British Medical Journal.

Correspondence.

Climate of Denver, Colorado.

Messrs. Editors,—Dr. H. Norton, of Detroit, Michigan (Detroit Review of Medicine and Surgery, September, 1872), submits the enclosed* general observations concerning the climate of Denver, the result of a residence of two months in that city, April and May, 1872.

Denver is situated at the junction of Cherry Creek with the South Platte, in latitude 39 deg. 40 min.—5,317 feet above the sea level. Now, as regards the Doctor's account of this new city, he commences his article by stating that the brilliancy of the light is very disagreeable to those having a very sensitive retina, often necessitating the use of colored glasses. As to the above, the objection is not more common to Colorado than to any open country; less so, indeed, than in Kansas, Nebraska or Iowa. In the two latter States, I have practised seven years, and in Denver eleven years, so that I may, perhaps, judge more correctly of facts than Dr. Norton, whose residence in Colorado did not exceed two months. He also stated that the diminished atmospheric pressure so affects the physical condition of the eye that there is required an increased power of accommodation. This statement has no foundation, and is apparently a peculiar theory of the Doctor's, when men in their endeavors to hatch up something fall into a bad way of wandering.

Again, he says: the city having on one side an immense plain to be heated by the sun's rays, and on the other a lofty range of mountains covered with perpetual snow and ice, great and sudden changes frequently occur. In the summer months, when the sun is brightest and the heat greatest, very little snow and ice can be seen on the great range west of Denver. In July and August there is but little rain, and the heat is never excessive—unless occasionally in the middle of the day. Even then, Denver has this peculiarity, that the heat is only felt under the direct rays of the sun. Indoors,

* We do not re-print this, as the various points are made out with sufficient clearness in the letter.—Eds.
or in the shade, it is always cool and fresh. Upon this point I insert the following government record for 1870, 1871 and 1872, which is mathematically correct, and therefore conclusive. Also, an article taken from one of the daily newspapers of Denver in relation to the climate of this city during the last winter.* Even in midsummer, the nights are so cool that a blanket is almost always necessary, which cannot be said of the Eastern, Middle or Western States.

During the heated period, Dr. Norton says that cold winds, called sand storms, are frequent, so that persons riding any distance from home for pleasure are obliged, even in midsummer, to take with them thick garments and wrappers in case they be surprised by one of these winds, or else they run the risk of being dangerously chilled. Who told the Doctor so? Or did it emanate from the same false theory with which he started? Indeed, the assertion has no foundation or truth in it whatever, which every old or new inhabitant of Denver can asseverate. We have, without doubt, wind storms, which reduce the temperature several degrees; but never to the extent of chilling either the weak or the strong, by any sudden reduction of a previously warm temperature. As a rule, these wind storms do not last over five or ten minutes, after which everything is as calm as if nothing had occurred. Before persons can get their coats or cloaks well on, everything is over.

Winter (according to the article in question) commences as early as the end of September, and, some years, continues as late as the first of May, being a season of bright sunshine, clouds, rain, hail, snow and wind, while the mercury at times sinks as low as 42° below zero. To use a phrase more pointed than elegant, the above story seems to have been made out of whole cloth.

We very seldom have any winter before the 25th of December or 1st of January. It is true, we have, at times, snow-falls in the month of November, but they are always slight, and the snow seldom lies on the ground more than a day or two. As for rain or hail, it is very rare indeed; and never in the recollection of the oldest inhabitant has the thermometer been known to fall as low as 42° below zero. If Dr. Norton had stopped after the words "bright sunshine," he would have been within the bounds of truth, and have fairly described the average Colorado winter.

Nasal catarrh is not an indigenous disease of this climate. Most of the cases here are, like consumption, imported, generated in such a climate as Michigan, Illinois, Indiana, Ohio, New York and the New England States. The scabs that the Doctor speaks of in cases of catarrh are the result of the dry atmosphere; rather curative than otherwise, if the patient looks after his nostrils and applies cold water locally and each day. The number of cases cured here, compared to that of those in the more humid climate of the States, I can safely say is as three to one.

The curative effects of a residence in Colorado, in spasmodic asthma, are rapid and truly miraculous; if not at Denver itself, in the higher altitudes of

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* We have space only for some extracts:

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In December, 1870, the lowest temperature was -18°, and in January, 1872, -26°; in no other months during the three years was it below -9°. The mean temperature in winter is apparently about 30°.—Eds.
the mountains in its vicinity. This holds good even in those cases where there is a complete emphysematous condition of the lungs, if the patient will stay long enough to allow the climate a fair trial.

Also, cases brought on and aggravated by organic disease of the heart, uterine derangements and nervous prostration are, as a rule, cured, the few exceptions being hardly worth taking into account. In regard to chronic bronchitis and consumption, I must say that many have come here to die, and why? Because their last days are upon them, and they are ready, like a drowning man, to grasp at a straw. However, if they come here in time, either in the first stage of the disease or with only the predisposition thereto, they will, in the vast majority of cases, be cured. Even if patients come here in the second stage of phthisis, they will live longer, and with less suffering, than it is possible for them in the States. I never, however, advocate the coming here of those who are almost in extremis—even though it may be true that they will here pass away with less suffering and greater ease than in the East. The journey is too great, with its necessary fatigues, and the promises in such cases are without foundation; although there is often a slight gain for a short season.

Dr. Norton says that the coming into this high altitude is especially dangerous for those who have disease of the heart.

It is, I believe, patent that high altitudes are not favorable to organic disease of the heart. Nor has this climate ever been advocated for these cases.

Dr. Norton also mentions, in his article, that acute rheumatism is very prevalent in this climate. According to the experience of the practitioners of Colorado, this statement is quite erroneous. Rheumatism is much less frequent here than I have found in Ohio and Iowa, in both of which States I formerly practised—in the former six years and in the latter seven years—while in Colorado I have practised eleven, always having a large run of patients. If there is any form of rheumatism more prevalent here than in the States, it is a sub-acute form, generally localized in some joint or limb, and without swellings.

As for the two or three quoted cases of congested kidneys, with albuminuria, due to sudden changes of air, if the Doctor had been a close observer he would, without doubt, have learned that they were cases sent here from the States to seek a cure in our healthy climate.

Finally, came the most remarkable statement, that the high altitude of Colorado seems eminently suited to persons of apoplectic tendencies. We should here be glad of an explanation. Perhaps we are behind the times, and ignorant of recent advances in medicine. He speaks of the climate as being prostrating instead of tonic, and that a quantity of stimulants can be borne here greatly in excess of what is tolerated in the East.

The Doctor speaks of the so-called mountain fever, a species of remittent, with typhoid tendencies, of frequent occurrence, and sometimes fatal. If Dr. Norton thinks this fever remittent, let him come here and try the effect of quinine upon it, which is acknowledged to be the sheet-anchor in the treatment of such a disease. Let him judge from his own success, and he will be obliged to say, instead of "sometimes fatal," "always" so.

This "mountain fever" is a pure type of typhoid, the same as is found in any of the New England States, and requires the closest watching to save the patient. The average mortality is 75 per cent. Yet it is not so common as the article of which we speak would seem to indicate. Some years, very few cases occur, and again it is more prevalent. New comers are the persons most liable to it; the complete changes in air, living—i.e. food and water—and perhaps excessive use of liquors, seeming to lead to it. The older inhabitants are seldom attacked.

In conclusion, let us speak of one of the virtues of Colorado, and, indeed, a very great virtue. I refer to the entire relief which this Territory affords to patients suffering from "Hay Fever," or "Hay Asthma," as it is sometimes called—a disease noted for its obstinate and yearly return. Vide a former communication, this JOURNAL, Jan. 30, 1873.

W. F. McCLELLAND.
Medical Miscellany.

On July 5th, ninety-four persons were arraigned at the Municipal Court of Boston for drunkenness.

In Boston one cannot sell beer and can sell oxalic acid. In Vienna, one cannot sell poison and can sell beer. We send schoolhouses to Vienna.

"SMART.—An American paper says, 'Massachusetts is noted for two things: intelligence and patent medicines.' We presume the intelligence is displayed in selling, not in taking, the physic."—Fun.

We are sorry to learn that the female students at Zurich, of whom we have had such glowing accounts, are too immoral even for Russia, who has recalled her daughters to be redeemed by home influences.

The celebrated anatomist, Professor Hyrtl, exhibits a series of his preparations in the International Exhibition at Vienna. Of two series which he exhibited at the London Exhibition in 1862, and the Paris Exhibition in 1867, one was bought by an American university.

Medical Register and Directory of the United States.—Circulars desiring information of individuals and institutions are being sent out. The Directory of the first eleven States and Territories is already with the printer. Information should be sent to S. W. Butler, M.D., 115 S. 7th St., Philadelphia, Pa. We hope the circular will receive due attention.

A laudable example.—The authorities of Leon in Spain have, on the suggestion of Dr. Siso y Ruiz, included in their public estimates for the year the sum of 1,000 pesetas (£42), to be applied in the purchase of vaccine lymph, which will be distributed through the province, with the object of insuring the vaccination of the poor to as great an extent as possible.—London Medical Record.

We have some other works on our table which we are for the present unable to notice at length. Of these, we would mention with approval the new Report of the Massachusetts State Board of Health, which teems with information of great value to all sanitarians. The manner in which the medical officers of that Board carry on their investigations deserves our warmest praise. The inquiry into the origin of consumption in this instructive blue-book is an example of this.—The Doctor.

Cholera and quarantine.—The following questions are proposed for discussion at the International Medical Congress, to be held in Vienna:—
1. Does the present state of our experience show that measures of separation and quarantine are effective and worthy of being recommended? 2. Where and in what form should quarantine regulations come into force, and what international combinations should be formed for this purpose? 3. What is the value of disinfection, and what means of disinfection should be recommended for general use?—London Medical Record.

At the Pathological Society of Dublin, Mr. Edward Hamilton, in the absence of Mr. Bookey, showed a tumor from the abdomen of a woman, aged about 60. It occupied the right lumbar region, resting on and causing atrophy of the psoas muscle. It consisted of the capsule of the right kidney in a state of extreme adipose hypertrophy. A large calculus was imbedded in the pelvis of the kidney. The ureter and bladder were healthy, and the other kidney was perfectly normal. The mass weighed 1 lb, 6 oz. and 2 drs. No other abnormal development of adipose tissue was met with in the body.—British Medical Journal.
Advice "To the Ladies Themselves," on their application for "mixed classes" at Birmingham; by the London Medical Times and Gazette. June 7th, 1873:

"We have always, in this journal, recognized your right to make yourselves acquainted with anatomy, physiology, surgery, medicine and obstetrics, if you please; and to practise medicine if you can prove yourselves qualified to do so. We do not think you are wise in wishing to do so, but you have the right to form your opinion on this point. But society has its rights as well as yourselves, and it is an outrage upon common decency that you should study these subjects in the company of young men. If you are determined to be surgeons and physicians, you can only become so with a due regard to public propriety and decency by establishing your own educational and examining institutions."

And may we not also add, your own medical societies?

A Case of Hydrophobia.—An inquest was held last week at Hampstead, by Dr. Lankester, on the body of Mrs. Revitt, aged 29, who had died of hydrophobia. The husband of deceased, a butcher, said that one Saturday morning, a few weeks ago, he left home about six o'clock to attend market, leaving the door leading from the shop to the staircase ajar, so that his wife could hear when the shopman arrived. On his return, his wife told him that she was awakened by a slight noise, and saw a dog licking the face of a child which was asleep in a crib by her bedside. She tried to drive the dog away, and it bit her hand. She then seized the dog, carried him to the window on the second-floor landing, and threw him out into the yard. Dr. Cooper Rose stated that he attended the deceased on the morning the dog bit her. She had a lacerated wound on the left thumb and scratches about the hand, which he cauterized. The wound healed up, but the thumb was torn under the nail, and was very troublesome. On Saturday week last he was again sent for, but did not exactly know what was the matter, but on the following day the symptoms were fully developed. She died from hydrophobia. The jury returned a verdict in accordance with the evidence, and desired the coroner to forward to the police authorities a requisition, calling their attention to the large number of stray dogs, which are a source of great and increasing danger to the public, in order that the necessary steps may be taken to put an end to the danger and nuisance.—British Med. Journal.

Mortality in Massachusetts.—Deaths in fourteen Cities and Towns for the week ending June 28, 1873.

Boston, 102; Charlestown, 15; Worcester, 19; Lowell, 8; Milford, 2; Salem, 12; Lawrence, 11; Lynn, 16; Gloucester, 15; Taunton, 2; Newburyport, 1; Somerville, 4; Fall River, 18; Haverhill, 2; Holyoke, 12. Total, 233.

Prevalent Diseases.—Consumption, 38; cholera infantum, 14; pneumonia, 13; scarlet fever, 10.

Holyoke reports six deaths from smallpox.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

Deaths in Boston for the week ending Saturday, July 5th, 163. Males, 81; females, 82.

Anemia, 1; accident, 6; apoplexy, 2; disease of the bladder, 2; inflammation of the bowels, 1; bronchitis, 4; congestion of the brain, 2; disease of the brain, 6; bronzed, 1; calculus, 1; cancer, 3; cholera infantum, 19; consumption, 20; cyanosis, 3; cerebro-spinal meningitis, 4; convulsions, 1; delirium, 2; diarhœa, 2; dropsy, 1; dropsy of the brain, 3; diphtheria, 1; dyspepsia, 1; exhaustion, 1; scarlet fever, 9; typhoid fever, 5; gastritis, 2; disease of the heart, 5; intemperance, 1; disease of the kidneys, 2; disease of the liver, 2; congestion of the lungs, 1; inflammation of the lungs, 9; measles, 2; old age, 6; premature birth, 3; puerperal disease, 1; paralysis, 2; pyaemia, 1; peritonitis, 2; rheumatism, 1; suicide, 1; seroful, 1; sunstroke, 2; tubercles mesenterica, 3; unknown, 11.

Under 5 years of age, 61; between 6 and 20 years, 27; between 20 and 40 years, 33; between 40 and 60 years, 21; over 60 years, 21. Born in the United States, 111; Ireland, 34; other places, 18.
The following case of extra-uterine fcetation, occurring in the person of Mrs. H. C., resident of Gloucester in this State, has so many points of interest that I beg leave to report it.

Mrs. C., aged 32 years, had been married about nine years and was the mother of two living and healthy daughters, aged, respectively, seven and eight years. Had aborted with a three months' foetus two years subsequent to the birth of the last child. Health good, thereafter, and menses regular up to April 4th to 10th, 1871. Menses did not appear at their regular period in May, but did occur twice during that month; also, in June and July, at irregular intervals of one and two weeks, lasting from one to four days at each occurrence. Had nausea and vomiting about the last of May, giving first suspicions of pregnancy. Menstrual discharge entirely suspended about the last of July. Near the termination of the last menstrual flow, excruciating pains were experienced in lower part of abdomen, described as "violent cramps," called "colic," by the physician in attendance; lasted several hours; were very prostrating, and relieved only by opiates. Was rarely free from pain and very great discomfort after the attack above-mentioned. Experienced greater soreness of bowels and more obstinate constipation than ever before, when pregnant.

Fœtal life was first felt about the last of August. From this time, gestation went on, without any occurrence of special note, till January 6th, 1872, which was about the date of expected labor. At this date, slight pains were felt in back and lower part of abdomen. Speedy delivery was anticipated. Pain, however, did not become more severe, and lasted only a few hours.

January 12th.—A rapid and vigorous movement of the foetus occurred on this day, lasting but a few minutes; and, thereafter, all motion entirely ceased. Slight uterine discharge of a dark bloody character was noticed, also, at this date.

There being no recurrence of pain, or symptoms of labor, and no motion of foetus apparent for more than a week, anxiety was felt, and
a messenger despatched to consult me. It was suggested that a mistake had been made in the "reckoning"—that a few days might yet be wanting to complete the full period of gestation. Patience was, therefore, recommended.

January 30, 1872.—Another week had passed without any change apparent. I was called and found Mrs. C. about house and quite comfortable. Expressing doubt as to the accuracy of her "reckoning," I was assured there could be no mistake, for the period of "quickening," which was specially noted by her, was just 4 1-2 months from the day she recovered from her last regular menses, April 10, 1871, and that the remaining 4 1-2 months should have ended somewhere between the 10th and 20th of the present month, January, 1872.

Palpation of abdomen gave a large, rounded tumor, centrally located, reaching from the pubes nearly to the ensiform cartilage, and occupying the whole abdominal cavity; about the size of the uterus, generally, when containing a fetus fully developed; somewhat flaccid and less resistant on pressure than the uterus containing a living fetus. The stethoscope gave no foetal sounds. Digital examination, per vaginam, gave an os uteri quite constricted and somewhat angular in the direction of its opening, a cervix not obliterated, but, on the contrary, of the usual length and size in the unimpregnated state. Passing the finger above the posterior lip into the "cul de sac," a large, somewhat rounded surface was perceptible to touch, apparently connected with and diverging from the cervix uteri. Sudden pressure made upon this was felt by the hand upon the abdomen, moving the tumor beneath it very sensibly.

Notwithstanding the peculiar, unimpregnated feel of the os and cervix uteri, unaided by the sound, I dared not declare the case other than uterine pregnancy, and, consequently, suggested that it might yet terminate favorably.

February 19th.—Visited Mrs. C. again. Found her attending to her domestic affairs, and hopeful, though in a dilemma. No change, except slight diminution in size of abdomen. No symptoms of labor, whatever, since my last visit. Urged to do something. In the absence of all signs of foetal life, I prescribed ergot.

March 14th.—Found abdomen a little more shrunken—tumor not rising to ensiform cartilage by more than one and a half inches. Had had no labor pains, though ergot had been taken freely.

Labor had been so long missed, and no signs of foetal life apparent for more than eight weeks, exploration of the uterine cavity was now attempted. Sponge tents were employed, but distance from patient made it impossible to insert more than one in the 24 hours, consequently, success was small—the external os and cervix yielding only partially—the internal os still remaining unililated.

March 16th.—Quite dissatisfied with the progress made, and doubtful of my diagnosis, I determined to pass the sound at once,
and explore. The sound entered, but passed the cervix and internal os with difficulty, the canal being unusually uneven and obstructed. Its further progress up the cavity was not free, but it seemed to impinge upon, and then pass by, something solid and impacted. It entered 2 1/2 inches, as per measure, on one of Simpson's sounds.

March 17th.—Patient passed a restless night. Had chills, headache and vomiting; pain in right iliac region, with great soreness upon pressure. Anodyne fomentations were ordered to bowels; opiate enemata; febrifuge mixtures; opium and calomel.

March 18th.—Pain and soreness more diffused, passing over to left iliac region; some nausea and vomiting; frequent pulse and considerable heat. Tympanites was present, accompanied by those peculiar "quadrupedante" gurgling sounds so suggestive of peritoneal inflammation.

March 21st.—At this juncture, Dr. A. D. Sinclair, of Boston, was called in counsel. Pain and sensitiveness of abdomen had so far abated, that it was found possible to make a fair examination of patient, though not so complete as might have been desirable. The central position of the tumor in the abdominal cavity, the uniformity of its outline, the projecting points on pressure, the impulse communicated to it by sudden pressure made upon the os uteri, taken in connection with the general history of the case, led to the following result of consultation, viz.: That this was, undoubtedly, a case of pregnancy, and, probably, uterine; that the fetus was dead; and that nature might yet prove competent to its removal. Patient delay was, therefore, advised.

A few days subsequent to the last date given above, symptoms of inflammation having nearly subsided, a severe and persistent diarrhoea set in. The size of the abdomen was rapidly reduced, and general emaciation and loss of strength became apparent. Nothing peculiar in the discharges was reported, except that sometimes they were a little bloody and slimy, till they had continued nearly three weeks, when, upon inquiry, they were described as very singular in appearance and singularly offensive. Upon inspection made April 24th, more than three months after time of expected labor, portions of the soft parts of a decomposed fetus were discovered by me, passed, per rectum, by patient. Among them was a piece of intestine, ten inches in length; hair and shreddy portions of scalp and other dermoid texture; also, the body of a small vertebra. Two days subsequently, other bodies of vertebrae and an orbital piece of bone had escaped. The next day the left tibia was expelled, and, finally, a few days after, the left lower maxilla.

The sequel will show that nearly all of the soft parts and many of the smaller bones of a fetus must have passed the rectum previously to my first examination of the discharges, the stupidity of the nurse in attendance not being equal to their recognition.

These portions of a fetus discharged, per rectum, pointed to a
diagnosis—rather, were leading to a prognosis. Digital examination was, therefore, made to ascertain, if possible, the orifice through which they were protruded into the rectum, and the direction of the opening. The lower margin of the orifice only could be reached, and that was found upon the anterior wall of the bowel. The feeble condition of the patient seemed not to warrant further disturbance; so the question as to which variety of extra-uterine foetation this case belonged remained still unsettled.

From the date of the discharge of the last piece of bone, May 4th to May 20th, the day of her death, the patient suffered but little severe pain. Soreness was always present within the abdominal parietes. Loss of appetite and nausea were constant, and, notwithstanding the diarrhoea was nearly suspended and the most sustaining treatment pushed, she gradually failed, and, finally, gangrenous inflammation setting in, she sank into an unconscious state three days prior to death.

Autopsy, 18 hours after death.—Cadaver much emaciated; rigor mortis slight; skin of jaundiced hue, except over lower abdomen which was livid in color; marked fulness of hypogastric region, most marked on the right of median line. The point of special interest being in this region, attention was directed to its examination. The integuments having been carefully removed, a dark and very thin muscular filament was found, covering a hard and somewhat irregular mass. Dissection seemed impossible, for the first touch of the knife penetrated the covering. Upon dilating the opening, a large cavity or sac presented, filled with foetal bones and a dark pulpy substance of the consistence and appearance of soft, dark putty. The large cranial bones formed the walls of this mass. The other bones and the soft substance filled the space between them. This mass was carefully removed and the cavity examined in situ, and from above. Its position was between the pubes and umbilicus, the superior part reaching the umbilicus, the inferior part extending downwards into the pelvis, and the anterior portion projecting furthest on the right side of the median line. The shape of this cavity was oblong rather than round—its longer diameter, 6 1-2 inches, extending downwards in the direction of the pelvic cavity—the shorter diameter, 5 1-2 inches, being on a line nearly parallel with the median line. The inner walls of this cavity or sac were ragged and sloughy, greenish brown, or black in color, and very fetid. No placenta or placental attachment was evident. Inferiorly and inclined to the right side and bottom of the cavity, lay the uterus, twisted upon its axis and retroverted to the right. Inferiorly and to left and a little posteriorly, a large, sloughy opening presented, surrounded by soft tissue. This opening communicated with the rectum. The wall of this sac was very thick and dense where connected with the uterus and the broad ligaments, and cut like uterine tissue; but anteriorly and superiorly, it was found agglutinated to the wall of the abdomen, to the omentum and the intestines, and in
a gangrenous, sloughy condition. The bladder was slightly adherent to the sac, otherwise it was in its normal condition. The uterus, rectum and that portion of the sac not decomposed were removed for further examination. The os, cervix and the whole anterior half of the uterus to extreme point of fundus were found in nearly normal condition—the peritoneal surface only showing effects of inflammation. The posterior half of the uterus, which formed part of the base of the sac, was not in normal condition, its surface having undergone absorption and partial change of structure. This surface was continuous with the inner wall of the sac, which wall of sac took on the appearance of homogeneous tissue with the uterus. The right ovary and Fallopian tube could be identified, but were much changed in position and condition from inflammation of tissues. The left ovary could not be identified, and the left Fallopian tube could not be well isolated, owing to agglutination to the walls of the sac.

The cavity of the uterus was pervious, and, apparently, normal. The anterior wall was of normal thickness; the posterior wall, not so thick as the anterior wall, as indicated above. The rectum was in normal position, with reference to the cervix uteri, but above the cervix it was to the left and attached, by adhesive inflammation, to the posterior basal wall of the sac. Along the line of this attachment, an oblong, sloughy opening communicated, directly, with the cavity of the sac in which the foetus lay. This opening was 1 3-4 inches in length, and from 1 inch to 1 1-2 inches in width—the lower margin being opposite to and on a level with the os uteri.

Inspection of the mass removed from the sac revealed nearly all of the larger bones of a foetus, except those already mentioned as having escaped per rectum. Most of the smaller bones, carpal, tarsal, phalangeal and vertebral were missing. Such as were found, with an exception or two, I am able to produce. The soft material was made up, in most part, of the disintegrated and decomposed soft parts of the foetus that had not escaped per rectum. Besides the bones, I have the satisfaction of being able to produce the uterus itself, with the sac also, so much of it, at least, as could be preserved; enough, however, I trust, to verify my statements and my conclusions.

In regard to the size of the foetus, in evidence of its age and maturity, I give the length of the shaft of the femur, 2 3-5 inches; length of shaft of tibia, 2 1-4 inches. The epiphyses, together with their cartilages, were destroyed or lost from all the bones when first discovered and removed from the sac. Upon comparison of the femur and tibia and other bones of this foetus with those of a fully grown nine months' foetus in the Warren Museum, they were found quite equal to them, both in size and length, well establishing the fact that they belonged to a fully developed nine months' foetus.

The pathology of this case is intensely interesting. Its consideration, naturally, gives rise to the following questions, viz.: What
accident occurred to this ovum, that it should have been the cause of so much mischief? Where was it at the time of the accident, and what were its location and relations, subsequently? What connection had it, if any, with the uterus or generative system? Finally, when the perfect development of the embryo existence had been attained, and that existence proved a failure, what were the resources of nature, in self-preservation, for the removal of the offending body that threatened the integrity of her organization?

The length of this paper, already, will allow me to give these questions only a passing notice; I shall then be happy to leave them to be discussed, in their nicer points, by those better able to do it than myself.

The Graafian vesicle had burst, and the ovum, impregnated or ready for impregnation, had left, or was prepared to leave its primitive nidus, embraced by the fimbriated extremity of the left Fallopian tube. Had it entered the tube, impregnation was possible to it there. Once in the tube, its natural course was to have been transmitted along the lining membrane of the tube into the cavity of the uterus. But we are certain it never reached that cavity, else we should have had normal, uterine gestation, which facts controvert. Neither could it have entered and remained in the tube, for, in that case, we should have had tubal gestation, which, I think, cannot be satisfactorily demonstrated upon the specimen; for, though the track of the tube is sufficiently evident, there is no apparent dilatation of it sufficient to answer that supposition. Could it have become entangled in the interspaces of the uterine tissue, after having been transmitted along the tube to a point between the external wall and the termination of the tube at the internal or cavity wall of the uterus? I must confess this to have been the view I took of the matter when I first looked at the specimen, so evident was the lesion of the uterine tissue. But since reviewing the pathological appearances of the specimen with Dr. R. H. Fitz, of Boston, I fail to be satisfied with that solution of the difficulty. Could it have occurred in the ovary? This point may need further elucidation. But, as the ovary cannot be well identified or isolated from the walls of the sac, and, of course, no point of lesion in that body be detected, I cannot speak with any precision. The fact of a fully developed nine months' fetus being found, would seem rather to antagonize, if not forbid this view.

The most correct, and the least difficult answer to the question of accident would seem to be this, viz.: That, being impregnated, the ovum dropped—from some physical or emotional cause—from the Fallopian tubal extremity into the peritoneal cavity of the abdomen, at the left side of the uterus; that, lying there and consequent upon impregnation, its membranes decidua was thrown out, probably attaching itself to the posterior surface of the uterus as well as to the peritoneal cavity in which it lay; that, as development went on and larger space was required, the uterus was pressed towards the right side of the pel-
NOTES ON THE PNEUMOGASTRIC.

By J. F. Alleyne Adams, M.D., Pittsfield.

Read before the Massachusetts Medical Society, June 3d, 1873.

In presenting to the Society a brief paper upon the functions of the pneumogastric nerve, and their bearing upon the etiology and treatment of certain forms of disease, a few remarks will be offered, by way of introduction, upon the anatomical relations of the pneumogastric to the other cranial nerves.

By the classification of Soemmering, the pneumogastrics constitute the tenth pair, and by that of Willis a portion of the eighth. The more scientific classification of Müller calls the pneumogastric, with the glosso-pharyngeal and spinal accessory, the second pair of cranial nerves, the third, fourth, fifth and sixth of Willis, with the portio dura of the seventh, being grouped together to form the first, while the hypoglossal is the third. This arrangement is more in accordance with the teachings of philosophical anatomy, inasmuch as it harmonizes the nerves with the vertebrate type of the skull, giving
one pair for each of the three cranial segments. It leaves out of
the question the three nerves of special sense, viz., olfactory, optic
and auditory, which are demonstrated by Oken to have no true nerve
structure, but to be mere outgrowths or appendages of the brain.
But Müller’s classification does not complete the homology between
the cranial and spinal nerves, for the third pair has no sensitive
root, and the distribution of both the second and third is greatly at
variance with the anatomical relations of the vertebrae to which
they respectively belong.

Dalton* proposes a fourth classification, which is identical with
Müller’s, excepting that the hypoglossal is put with the glosso-pha-
ryngeal to form the second, while the pneumogastric and spinal access-
ory constitute the third. Although suggested by him on purely physi-
ological grounds, this arrangement commends itself, as well, from an
anatomical point of view; and there are strong arguments in favor
of its adoption as the true classification of the cranial nerves.

These arguments may, for convenience, be arranged under the
three following heads:—


1st.—Origin.—All of the cranial nerves, excepting the three
nerves of special sense mentioned above, have their deep origin in
the medulla oblongata, and are arranged in the following order:—
from its upper portion arise, in close proximity, the trigeminus, the
facial, motor oculi, abducens and patheticus; then comes the glosso-
pharyngeal, next below which is the deep origin of the hypoglossus;
below this is the vagus, and, lastly, the accessorius. Thus we see
that the hypoglossus, although having its origin on the same level as
the vagus, and anterior to it, really arises above that nerve, and close
to the origin of the glosso-pharyngeus. Arguing from the deep ori-
gin, therefore, there is no propriety in calling the hypoglossus the
last of the cranial nerves.

2d.—Distribution.—The several nerves grouped together as the
first pair are distributed chiefly to the frontal segment, including its
inferior or haemal arch, the inferior maxilla. The second, or pari-
tal segment, has for its haemal arch the styloid processes and hyoid
bone; and we find the glosso-pharyngeus and hypoglossus distributed
to the tongue and pharynx, parts intimately connected with these
bones. The third, or occipital segment, by an adaptation to special
ends, has its haemal arch separated from it, to form the scapular
arch; and, accordingly, the third pair of nerves undergoes a similar
development, the pneumogastric and accessorius being distributed to
the whole respiratory apparatus, the heart and chylo-poietic visceras,
while the spinal portion of the spinal accessory goes to the trapezius
and sterno-mastoid muscles, which form the chief connecting links
between the occipital vertebra and its haemal arch.

3d.—Function.—The present classification makes the analogy of

* Dalton’s Human Physiology, p. 432.
the cranial to the spinal nerves the more striking, in that it gives to each pair a sensitive and a motor root. Thus, the first pair has for its sensitive root the trigeminus, and for its motor the facial, of which the three motor nerves of the eye and the motor root of the fifth pair are mere accessories. The second pair has the glosso-pharyngeal for its sensitive, and the hypoglossus for its motor root, while the sensitive root of the third pair is the vagus, and the motor the spinal accessory.

Of the arguments that may be adduced in antagonism to this classification, the strongest is, that, in frogs, the hypoglossus is placed below the vagus, and becomes the first of the spinal nerves; although the deep origins of the two nerves, even in this case, have been shown by Vogt to be close together.* Another objection is, that the hypoglossus leaves the skull by the anterior condyloid foramen, which is posterior to the foramen lacerum posterius, which transmits the pneumogastric. Therefore, although both of these objections might possibly be ruled out, the arrangement is not to be accepted without due caution.

The pneumogastric arises, superficially, by eight or ten filaments, from the lateral portion of the medulla oblongata, behind the olivary body, between the roots of the glosso-pharyngeal and accessorius. Its deep origin is from a grey nucleus in the lower portion of the floor of the fourth ventricle. The nerve leaves the cranial cavity by the foramen lacerum posterius, within which is formed the ganglion of the root, the ganglion of the trunk being external to the cranium. The root of the pneumogastric is strictly sensitive, but its trunk is both sensitive and motor. Its motor filaments are derived chiefly from the accessorius, which unites with it just below the ganglion of the trunk, besides giving off some filaments to the ganglion of the root. It likewise anastomoses at the ganglion of the root with the facial and hypoglossal, and, at that of the trunk, with the hypoglossal and first two cervical nerves. Both ganglia are intimately connected by numerous filaments with the superior cervical ganglia of the sympathetic, while its trunk receives branches from the middle and inferior cervical and upper dorsal ganglia.

Thus constituted and reinforced at its origin, the par vagum is prepared for a distribution more extensive and functions more varied and remarkable than any other pair of nerves. Its functions may be briefly stated, as follows:—Its sensitive filaments are distributed, through the auricular, to the external auditory meatus and membrana tympani, through the superior and inferior laryngeal, anterior and posterior pulmonary, to the whole respiratory tract, through the cervical and thoracic cardiac to the heart, and through the pharyngeal, oesophageal and abdominal branches to the digestive tract.

Its motor filaments are distributed, through the pharyngeal and inferior laryngeal branches to the pharynx, through the recurrent la-

ryngeal to all of the muscles of the larynx except the crico-thyroid, through the superior laryngeal to the crico-thyroid, through the recurrent laryngeal and pulmonary branches to the tracheal and bronchial muscular coats; and, through the esophageal, gastric and intestinal branches to the muscular coats of the esophagus, stomach, and the whole of the small intestine. Until the discovery of the intestinal branches by Kollman, in 1860, the abdominal distribution of the vagus was supposed to stop at the pylorus.

The pneumogastric sends secretory fibres to the gastric and intestinal mucous membrane.

Its hepatic branches preside over the glycogenic function of the liver.

It also sends inhibitory or arresting fibres to the heart.

It transmits accelerating and inhibiting fibres to the centre of respiration.

It sends accelerating and inhibitory fibres to the vaso-motor centre, the latter being contained in the depressor nerve of Cym and Ludwig.

Without attempting to go over all of the ground here indicated, this paper will confine itself to the more recent discoveries concerning the relations of the pneumogastric to the heart, the lungs and the stomach.

Influence of the Pneumogastric upon the Heart.—Although the vagus supplies to the heart both centripetal and centrifugal filaments, its action upon this organ is not that of an ordinary motor nerve. On the contrary, it exerts an arresting or regulating influence. The rhythmic contractions of the heart are induced by an excitation derived from the cardiac ganglia of the sympathetic system, beautifully described and figured by Pettigrew, in the May number of the Edinburgh Medical Journal for the present year.* This system bears to the heart the same relation that the main-spring does to a watch, while the pneumogastric answers, in some sort, to the escape ment. This influence is commonly known as the inhibitory action of the pneumogastric.

The subject of inhibition was first introduced to the profession in 1846 by the brothers Weber, who discovered that galvanization of the pneumogastrics in the neck rendered the action of the heart slow; and, if the current were sufficiently powerful, arrested the heart in diastole. Since then, numerous experiments have demonstrated the accuracy of their observations, and have added largely to our knowledge in this direction. The result of these experiments may be stated as follows:†—

If one of the pneumogastrics be divided in the neck, the frequency of the heart's pulsations is slightly increased and the cardiac pressure slightly diminished.

If both pneumogastrics are divided, the frequency of the pulsations is greatly increased, at least doubled, while the force is greatly diminished.

Galvanization of the peripheral end of the divided nerve retards or arrests the heart’s action; but galvanization of the central ends produces no such effect, showing that the inhibitory influence is a centrifugal one.

If an animal be placed under the influence of woorara poison, which paralyzes motor nerves without affecting sensitive nerves or muscular irritability, and the pulsations of the heart be kept up by artificial respiration, galvanization of the pneumogastrics has no effect upon the heart’s pulsations; whence we may conclude that the inhibitory power is located in motor filaments. This experiment has been tried by Bernard and verified by Flint.

The experiment has been performed by Traube of injecting digitalis into the veins of a dog with the pneumogastrics divided, without affecting the heart’s pulsations; although, when this was done with the nerves intact, the number of beats was, in an hour, reduced to one-fourth of the normal number. This indicates that the sedative action of digitalis upon the heart is due to an irritation of the vagus, transmitted from the brain.

Irrigation of the medulla oblongata produces the inhibitory action; but the irritation is conveyed, not by the root of the vagus, but, as has been demonstrated by Waller, by the accessorius.

Recently, it has been discovered that the right vagus possesses a more powerful inhibitory power than the left. “Dr. Massin states that, while the movements of the heart are stopped by a very powerful excitation of the left vagus, it is always possible, by sharply striking the heart with the finger, to reproduce the rhythmical movements; while this mechanical cause of action remains ineffectual when applied to the heart stopped by strong galvanization of the right vagus.”

The inhibitory influence upon the heart is also exerted in various reflex ways. Brown-Séquard has found, in rabbits and guinea-pigs, that an irritation of the nostrils by carbonic acid or chloroform, or even by a sudden and gentle touch, will cause the heart to stop completely, or, at least, notably diminish its force and speed. Rutherford states that, if any irritating vapor be brought before the nose of a rabbit, it closes its nostrils and ceases to breathe, often for thirty or forty seconds. Within three seconds after the cessation of respiration, the heart comes almost to a stand-still, and continues to beat very slowly until respiration is re-established. Rutherford believes that “this arrest of the heart is due to stimulation of the inferior cardiac branch of the vagus by the asphyxiated condition of

† Ibid. Most of the physiological facts in this paper are from Flint or Brown-Séquard.
the blood"; but Brown-Séquard proves conclusively that this is not the case, but that the phenomenon is due to reflex influence.

The cold bath, especially the shower-baths or douche, has, by reflex action, the same inhibitory influence upon the heart. Fainting is even produced in some persons by this means, from complete arrest of the pulsations. Brown-Séquard states that, in Europe, where ice-water is not as habitually used as here, a stoppage of the heart’s action is not rare, in the summer season, after the drinking of a large quantity of cold water.

Wounds of the abdominal viscera and blows upon the belly produce fainting or slowing of the heart’s action. To Brown-Séquard we are indebted for the discovery that the crushing of the ganglions of the sympathetic in the abdomen stops or diminishes the movements of the heart; but if the spinal cord or vagus is divided transversely, the crushing can be made without any influence upon the heart.

Goltz has demonstrated, in the frog, that the heart can be brought to a stand-still by striking upon the abdomen, and that this paralysis of the heart can be prevented by a simultaneous strong irritation of the cutaneous nerves, which diminishes or abolishes the reflex activity.

It is asserted by Rouget, that the inhibitive action takes place in nerve-cells. He says:—"Wherever the excitation of a nerve is followed by an arrest of movement, nerve-cells are found on the nerve-fibres which transmit the excitation." In this view he is supported by Brown-Séquard, who thus describes the process of arrest:

1. An irritation starts from a part of the nervous system radiating towards the nerve-cells, the activity of which is to be arrested.

2. A special influence is to be exerted by this excitation on those cells, arresting their activity.

3. The movements, normal or morbid, or other phenomena depending on the activity of those cells, cease at once when that activity ceases.

In the discovery of the depressor nerve by Cym and Ludwig, who first published an account of it in 1867, an important addition is made to our knowledge of the pneumogastric in its relation to the heart. This nerve was found in the rabbit, arising by two roots, one from the trunk of the pneumogastric, and the other from its superior laryngeal branch, passing down the neck, by the side of the sympathetic, to the chest, where, joining with sympathetic filaments, it passes to the heart by little branches between the origin of the aorta and the pulmonary artery. This nerve has since been found by Cym in the horse. In the rabbit it has been made the subject of a very complete and satisfactory series of experiments.

When this nerve is divided in the neck, and its peripheral end irritated by galvanization, no effect whatever is produced upon the heart or the circulation; but if its central end is galvanized, the pressure is diminished in the whole arterial system. This diminution is gradual,
the pressure never reaching its minimum before fifteen pulsations of the heart, and may be reduced to one half the pressure before the irritation was applied. At the same time that the arterial pressure is diminished, the frequency of the heart's pulsations is reduced, unless both pneumogastries have previously been divided, when, although the arterial pressure is reduced as before, the action of the heart is not disturbed. These experiments prove that the action of the depressor is entirely centripetal, that its inhibitory action upon the heart is reflex, through the nerve-centres, the trunk of the pneumogastric, and its remaining cardiac branches, while the reduction in the pressure of blood in the large arteries is independent of the centrifugal fibres of the vagus, and bears no relation to the reduction in the number of cardiac pulsations.

In determining the mechanism whereby the reduction in the arterial pressure is effected, Cym has displayed great ingenuity. Having, by a process of exclusion, eliminated all other possible agencies, he has clearly shown that this influence is exerted by reflex action, through the instrumentality of the splanchnic nerves, the most important vaso-motor nerves in the entire organism. "The irritation of the depressor nerve, after section of the splanchnic nerve," to use the language of Cym, "produced still a diminution in the blood-pressure, but the absolute value of this diminution is much less than it was during the irritation of the depressor nerve, before the section of the splanchnic."

The result of these experiments is to show that irritation of the depressor nerves exerts, through the splanchnic, an inhibitory or paralyzing influence upon the abdominal vaso-motor system; and thus, the resistance to the flow of blood being diminished in the immense vascular system of the abdominal organs, the pressure is correspondingly reduced in the arterial trunks.

(To be continued.)

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Progress in Medicine.

REPORT ON PHYSIOLOGY.*

By H. P. Bowditch, M.D.

ANIMAL HEAT.


* Second semi-annual Report.

Vol. LXXXIX. No. 3a
We have, in the above-mentioned pamphlet of Prof. Rosenthal, an excellent résumé of the most important recent investigations in this department of physiology, and a clear statement of the present condition of our knowledge of the subject. This work is one of especial value to practising physicians, now that the thermometer has come to play such an important part in diagnosis and prognosis, for we find here a clear statement of the conditions under which alone accurate measurements of animal heat are possible. For a better comprehension of the problem, the author conceives the animal body as divided into three portions:

1. A central portion, where the temperature is uniform, or nearly so, throughout.

2. An external layer, exposed to the cooling influences of the air.

3. An intermediate zone, where the temperature increases gradually from without inwards. The thickness of this zone differs in different parts of the body, being greatest in the most exposed portions.

To determine the real temperature of the animal body, the thermometer must be passed through the intermediate zone, and the measurements taken in the central portion. This is best accomplished in the rectum, and in order to be sure that the instrument lies in the central portion, it must be introduced slowly and the temperature read in different positions. As long as the mercury continues to rise in proportion to the depth to which the thermometer is introduced, it must be regarded as lying in the intermediate zone; but when a deeper introduction no longer has this effect, the reading of the thermometer may be considered as expressing the absolute temperature of the body. All the other parts of the body, which are used for thermometric purposes, viz., mouth, vagina, axilla, &c., lie in the intermediate zone, and give a temperature not only lower but more variable than that of the rectum. This is especially true of the axilla, whose temperature, being greatly dependent upon the vascularity of the skin, is sometimes found to rise under circumstances which cause that of the rectum to sink.

The constancy of the temperature of a warm-blooded animal is, of course, dependent upon an equilibrium being established between the production and the loss of heat in a given time. Any increase of the production or diminution of the loss of heat will therefore raise the
temperature of the body, and, conversely, any diminution of production or increase of loss will lower it. The regulatory arrangements, by means of which the body is able to maintain the uniformity of its temperature in spite of variations of its surroundings, affect chiefly the loss of heat. Thus, exposure to cold causes contraction of the cutaneous bloodvessels, in consequence of which less warm blood is brought to the surface of the body, and therefore less opportunity offered for loss of heat by radiation. Exposure to heat has, of course, the opposite effect. The power of the body, however, to keep its temperature constant is confined within narrower limits than has been supposed. Rosenthal found, in his experiments on rabbits, that these animals could only preserve their normal temperature when the surrounding media had a temperature between 11° and 32° C. Man, who is able to adapt himself to a greater variety of climates than any animal, owes this power chiefly to his ability to effect voluntary changes in his food and clothing. Even in man, it has been found that a slight increase in the loss of heat, as by sudden removal of the clothes, is sufficient to cause a perceptible lowering of the temperature in the rectum.

There seems to be often a great want of promptness in the working of the regulatory arrangements, for Rosenthal found that, when a rabbit had been exposed for a certain length of time to air of 36° - 40° C., and then removed to air of ordinary temperature, the thermometer in the rectum indicated, for the next two or three days, a diminution of about 1° C. in the temperature of the body. When exposed to a sudden lowering of temperature in the surrounding media, we may "catch cold" in two different ways: firstly, heat enough may be abstracted from the warm surface of the body to cause a dangerous lowering of the temperature of the body; or, secondly (if the cutaneous bloodvessels contract to prevent this loss of heat), a sudden collateral hyperaemia may be produced. The prophylactic effect of cold baths seems to be due to their causing an increased "tonicity" of the cutaneous bloodvessels, so that they do not dilate so much under the influence of a high temperature of the surrounding media. Variations in the activity of the respiration and perspiration also influence the loss of heat from the body.

In addition to these means of regulating the loss of heat, are there any arrangements by which the production of heat can be varied in accordance with the needs of the body? In other words, does the production of heat in the body vary with the temperature to which the body is exposed?

This a question which, for more than ten years past, has been under discussion in Germany. The most conspicuous of the disputants, with their most recent writings, are given in the above list.

The affirmative side of the question is maintained by Liebermeister and by Roehrig and Zuntz. The facts upon which they rest their opinion are the following:—

I. A cold bath, or exposure of the skin to cold, often causes a temporary rise of temperature in the axilla or mouth. To this Senator and others object that measurements in the axilla do not give the true temperature of the body; that, under the same circumstances, the temperature in the rectum speedily falls from the beginning of the experiment; and that the temporary rise in the axilla is due to the constric-
tion of the cutaneous vessels, in consequence of which the blood is not so much cooled in its passage through the limbs. The temperature rises, therefore, in the axilla in the same way as after the application of a tourniquet to the brachial artery.

II. The calorimetical experiments of Liebermeister seemed to show that, by quietly lying in a bath of 20° - 30° C., not only the loss but also the production of heat is increased; so that in a bath of 20° - 23° C. from three to four times, and in a bath of 30° C. about twice as much heat is produced as by the same individual under ordinary circumstances.

The value of these experiments is disputed by Winternitz and Senator, who point out various defects in the methods adopted. Senator maintains that, in his own more carefully conducted calorimetical experiments, no increased production of heat under the influence of cold could be detected.

III. Exposure to cold causes an increased absorption of oxygen and elimination of carbonic acid.

Senator admits the correctness of this observation, but concludes, from his own calorimetical experiments, that heat production and excretion of carbonic acid do not always go hand in hand. He finds, for instance, during digestion, an increase both of carbonic acid excreted and of heat produced, but the production of heat is more increased than the elimination of carbonic acid. On the other hand, he finds that exposure to cold causes no increased production of heat, measured calorimetically, but a decided increase in the elimination of carbonic acid. Hence we must admit that there are processes going on in the body which produce heat, but do not set free carbonic acid; and, on the other hand, that the elimination of carbonic acid does not prove a contemporaneous production of heat.

Roehrig and Zuntz regard the production of heat in consequence of exposure to cold as a reflex phenomenon, dependent upon an irritation of the sensitive nerves of the skin, causing an increased metamorphosis of tissue. This same effect may be produced by irritating the cutaneous nerves in other ways, e. g. by salt water. In this way is explained the invigorating effect of sea-bathing.

(In this connection are to be noted Paalzow’s experiments on rabbits, which show that a mustard poultice on the abdomen causes a decided increase in the absorption of oxygen and elimination of carbonic acid.)

Recognizing the important part played by the muscles in the production of heat, Roehrig and Zuntz regard the regulatory process as probably consisting in a weak reflex irritation of the motor nerves, which increases with the difference of temperature between the animal and its surroundings. Under ordinary circumstances, this irritation is not sufficient to cause a visible contraction of the muscles, but under the influence of severe cold we have the phenomenon of shivering, which, on this theory, is only an exaggeration of the normal regulatory process. If this view of the question be correct, we should expect that paralysis of the motor nerves by curare would not only lower the temperature of the body, but would also reduce the regulatory power to a minimum, and this is found to be really the case. On the whole, therefore, although an increased production of heat as the result of exposure to cold cannot be regarded as absolutely demonstrated, yet
it must be admitted that there are many observations which point in this direction. Since we know, by the observations of Brondgeest, that muscular tonicity is a reflex phenomenon, it is reasonable to suppose that this tonicity will be increased by stimulation of the cutaneous nerves. This, of course, will cause an increase of the heat production which always accompanies muscular activity. On the other hand, as Rosenthal observes, the success of the cold-water treatment of fevers would hardly be explicable on the theory that an increased loss is necessarily accompanied by an increased production of heat.

The experiments of Horvath were made on marmots and hedgehogs, with a view of determining some of the characteristic phenomena of hibernation. The temperature in the rectum of a hibernating animal was found to sink as low as 2° C. On awakening from this condition, the temperature rose rapidly to 32° C.; but this rise was preceded (as far as can be judged from the meagre details of the experiments which are given) by an increased rapidity of the respiratory movements. Respiration experiments were made, both before and after waking, showing that the elimination of carbonic acid was four times, and that of water seven times, as great in the waking as in the sleeping condition. Experiments consisting in artificially cooling hibernating animals, showed that their hearts continued to beat and their muscles remained irritable at temperatures much below that at which these phenomena ceased in rabbits.

Draper's experiments had for their object, "to determine the quantity of heat passing off from the surface of the body, by finding how much it would elevate the temperature of a known mass of cool water during a given period of time." It was found that by lying quietly for one hour in a bath of 74° F., enough heat was lost from the body to raise the temperature of the water 2° F. and to lower that of the body, as measured in the mouth and armpit, 1° F. As the volume of water in the bath was seven and one-half cubic feet, and that of the body three cubic feet, it was concluded that enough heat is evolved from the body in one hour to warm the body itself 5° F. Dr. Draper further concludes that "the converse of this may also be considered as true, viz., that after death, the air being at 73° F., enough heat is lost in the course of an hour to cool the body five degrees, at least during the first hour." This, of course, could only be true if the production and loss of heat in the living body were the same as in the corpse, and the conducting power of air the same as that of water. From the figures in Dr. Draper's tables, it can be calculated that in a bath of 74° F. (23.3° C.) the body loses in one hour an amount of heat equal to 281 Calories, i.e. an amount capable of raising the temperature of 281 litres of water 1° C. This loss is not so great as has been observed by Liebermeister and others in baths of similar temperature, and the cause of the difference is perhaps to be found in the greater duration of Dr. Draper's experiments. Thermometers in the mouth and axilla indicated a steady fall of temperature during the bath and for a short time after leaving it. This was accompanied by a diminished rate of respiration and pulse. The continuance of the effect after leaving the bath is not explained by Dr. Draper, but it seems reasonable to suppose that the evaporation of the moisture adherent to the body on leaving the bath may have caused a further reduction of temperature. The fact that the air in the room had a temperature of 90° F. and con-
tained only 53 per cent. of the amount of moisture necessary for its saturation, lends force to this suggestion. The diminished rate of the pulse seems to be due to a direct effect of a lowered temperature on the heart's action as demonstrated by Cyon.* The slow respiration may also be due to the same cause, but it is important to bear in mind that the rate of respiration has no direct connection with the activity of the interchange of gases in the lungs, and also that in counting one's own respiratory movements (as Dr. Draper himself observes), it is "very difficult to avoid influencing them in the act of counting."
The most important result of Dr. Draper's experiments is that, when the experimenter in the bath executes continued muscular movements, the temperature of the water around him is not raised any higher than when he remains perfectly at rest. We must therefore conclude that the application of water of 75° F. to the surface of the body reduces to a minimum the function of the skin, considered as a regulator of animal heat, "and the whole duty of exhalation of vapor of water and consequent removal of heat is thrown upon the lungs; hence the increased respiratory actions, and hence also the special tendency of application of cold to the surface to produce inflammations of those organs by increasing the work they are obliged to perform."

Jürgensen publishes in pamphlet form observations previously communicated to the *Deutsches Archiv für klinische Medicin*. According to this observer, the temperature measured in the rectum of a person at rest has a normal daily variation of about 1° C., the highest temperature being in the afternoon, and the lowest between midnight and morning. The taking of food raises the temperature slightly, but not enough to interfere with the regular diurnal variation. The connection of sleep with changes of temperature is unfortunately not spoken of.

**Temperature in Right and Left Ventricles.**

**Koerner.**—*Beiträge zur Temperatur topographie des Säugethierrörpers*. Breslau, 1871.

**Heidenhain.**—*Ueber den Temperaturunterschied des rechten und linken Ventrikels*. Pflüger's Archiv, iv. 558.

**Bernard.**—*La chaleur animale*. Revue Scientifique, i., 133 et seq.

**Stricker and Albert.**—Untersuchungen über die Wärmeökonomie des Herzens und der Lungen. Stricker's Medizinische Jahrbücher, 1873, p. 30.

The observations of Bernard and Liebig were for a long time regarded as conclusive evidence that the blood in the left side of the heart is cooler than in the right side, and the conclusion seemed to be justified that the blood in circulating through the lungs is more cooled by coming in contact with the air and by the loss of watery vapor than it is heated by any chemical processes which may have their seat in the lungs. It would, therefore, be expected that the breathing of warm air saturated with moisture would cause a rise of temperature of the arterial blood. The experiments of Lombard,† however, seemed to show that this was not always the case, and further doubts were thrown upon the correctness of the above view by the observations of Jacobson and Bernhardt‡ who, in a series of experiments on rabbits with

† Archives de Physiologie, 1868, p. 479.
‡ Centralblatt für die med. Wissenschaften, 1868, p. 643.
themo-electric needles, found that, in the majority of cases, the blood of the left heart was warmer than that of the right.

The question having been thus again opened, a large number of observations were made on dogs by Koerner and Heidenhain, partly with thermometers and partly with thermo-electric apparatus. They found that out of 94 observations only one showed an equality of temperature between the two sides of the heart, while in all the others the difference was in favor of the right side. The authors, however, propose an entirely new explanation of the cause of this difference. According to them thermometric measurements in the ventricles give not only the temperature of the blood contained in them but also that of the muscular walls, for these walls must necessarily at every systole be brought in contact with the bulb of the thermometer or the ther- mople. Now the walls of the right ventricle are warmer than those of the left, because they lie in contact with the diaphragm which rests directly upon the warm organs of the abdominal cavity. The real reason then of the higher temperature in the right ventricle is that heat is conducted to its walls from the abdominal organs, while from the left ventricle heat is conducted away by the cooler lungs which surround it. This theory is supported by the observation that the difference of temperature between the two ventricles is increased by keeping the instruments pressed firmly against the muscular walls. Moreover filling the stomach with cold water or placing a bag filled with cold water under the diaphragm was found to diminish this difference, while the use of warm water in a similar way increased it. According to this theory, observations on the comparative temperature in the two ventricles have not the same physiological interest which has been heretofore attributed to them, since the difference of temperature depends chiefly on anatomical relations of organs which may vary in different animals.

Since the publication of Koerner's and Heidenhain's experiments, Bernard has given a course of lectures on animal heat, where he has mapped out very minutely the variations of temperature in the different parts of the animal body. He discusses the above theory and rejects it on the ground that the observations of Hering on a case of ectopia cordis have shown that even in this malformation the temperature of the right ventricle is higher than that of the left. Here, of course, the possibility of the communication of heat between the heart and the neighboring organs is excluded.

Stricker and Albert are also unwilling to accept Heidenhain's explanation, for they find that the difference in temperature between the right and left ventricles is unaffected by opening the abdomen and withdrawing the viscera from contact with the diaphragm. These observers give a very extended series of measurements in all parts of the heart and great vessels, from which they conclude that the muscular walls of the left ventricle are warmer than those of the right, but the blood of the right ventricle warmer than that of the left. This would of course indicate a cooling of the blood in the lungs.

Even if the views of Heidenhain and Koerner should not be fully sustained by subsequent experiments, there is without doubt sufficient truth in them to deprive the question of a great deal of the importance which it was formerly thought to possess.

(To be concluded.)
THE SUPPRESSION OF QUACKERY.

Of the many difficult questions the solution of which rests with the medical profession, none is more urgent or more important than this. If the law forbade, as it should, under severe penalties, that any one should practise without the degree of a recognized college and the membership of the State Society, there would be nothing to desire; but as this is too much to hope for, for a long time at least, we must consider what is in our power. The Canada Lancet proposes to remedy the evil by instructing the people in medical matters, so that they may be able to recognize charlatanism. This plan agrees with the day's hobby of popular science, but we fear it would only increase the evil. The maxim that "a little learning is a dangerous thing," cannot be too often repeated. Every physician can testify that few patients are more troublesome than those who think they know something of medicine. The illustrations used by the Lancet in support of its theory do not strike us as happy. It says that "the large audiences which attended the lectures of Prof. Tyndall were pleased and delighted with his experiments and explanations on the subject of light." We have no doubt of it, but we do not believe that five per cent. of his hearers understood the subject, or could to-day give a rational account of his lectures. The second illustration is more unfortunate, as it speaks of the exhibition certain New York professors recently made of themselves in Steinway Hall as something creditable and instructive. The fact is, non-professional people are not able to judge of medical subjects, and it is not possible that they should become so. Nothing that is worth knowing can be mastered without severe study. Amateur medicine is on a level with political strategy, of which our late war afforded such frequent examples. Moreover, it must not be forgotten that the motto of the most pestilent class of quacks is "public instruction," and that it is under this disguise that books "for the young," "for the married," "for the unmarried," containing most pernicious stuff, are peddled through the country. In the same way, a tempting opportunity for attaining notoriety is offered to those who, if restricted to professional means, would see themselves condemned to obscurity. The struggles of the homeopaths to make capital out of the late trial is a case in point.

We think that the remedy is to be found in the direction opposite to that indicated by the Lancet. It consists in raising the standard of
medical education, in making a degree something that one may be proud to have earned, in thus forcing the incompetent into the ranks of the irregulars, and in keeping the line between the latter and the profession sharply defined. Such a reform cannot be effected in a day, but it is sure to come if we do our duty. We must expect to be laughed at and sneered at, to be called bigots and fanatics; but in the end, merit will tell, and the dignity of the profession will be recognized. Many forms of error and delusion will fall of themselves, and public sentiment will permit the suppression, with the strong hand, of the viler and more dangerous forms of quackery.

European Child-life in India.—At a recent meeting of the Medical Society of London (British Medical Journal, May 3d), Dr. Fayrer read a paper on this subject. He pointed out how rapidly the infant European population was increasing in India, and contrasted the mode of life in that country twenty-five years ago with what it is now. The question had often been asked: "Can the Anglo-Saxon colonize India; i.e., can the race, unsupported and unrecruited from home, continue to reproduce itself and exist there? Could he, in short, do in India what he has done in America and Australia, people the country and displace or replace the autochthones and his older Aryan brethren who have become acclimatized during an occupation of many centuries?" Dr. Fayrer was of opinion that the data for forming a precise reply to this question did not exist, but his own firm conviction was that it could not be done; and he felt convinced that, had India been colonizable by the European, the position now held by them would be very different from what it is. The European who becomes an item in the fixed population, and who leads an ordinary temperate and correct life, had expectations of living perhaps little below those which he might have had in England. About 1815, an asylum was founded in Calcutta for children whose parents were European, and it is from the reports of this Society, numbering about 129 individuals, varying in age from one to eighteen years, that the following information is gathered. It was observed that the stimulating effects of an almost tropical climate asserted their influence; and, as a rule, the girl of sixteen or seventeen years was two or three years in advance of a girl of that age in a European climate. These children appear to have a great immunity from diseases peculiar to the country as well as from others of a severe kind; thus no cases of cholera, diphtheria, scarlatina, croup, pleurisy, pneumonia, ophthalmia, phthisis, dengue or malignant cachexia, have been known among them for many years. The death rate is about double that in England, as the following table will show:

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<tr>
<th></th>
<th>England</th>
<th>India</th>
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<tr>
<td>Under 5 years</td>
<td>67.58</td>
<td>148.10</td>
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<tr>
<td>From 5 to 10 years</td>
<td>8.80</td>
<td>17.73</td>
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<tr>
<td>From 10 to 15 years</td>
<td>4.98</td>
<td>11.51</td>
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The author concluded by saying that it was satisfactory to know that by care and proper training a European child may live, grow, and even thrive, on the plains of Bengal.—British Medical Journal, May 3, 1873.
Correspondence.

MESSRS. EDITORS.—A writer in the last number of the New York Medical Record discourses somewhat diffusely but decidedly against the practice of supplying Life Insurance Companies with "answers by the family physician" so unscrupulously demanded by these companies. After saying:—"I have no hesitation in asserting that it is no part of his duty to furnish information to a life insurance company in respect to the health of individuals who may have placed themselves under his professional care. Not only is it no part of his duty as a medical man, but it is virtually a betrayal of the trust and confidence imposed in the unreserved relations between patient and physician"—he adds in closing:—

"It is remarkable that a common professional sentiment did not long ago protest against such an attempt to procure information, on the ground, already mentioned, of infractions of ethics, and disregard of individual obligation and propriety."

Now, Messrs. Editors, such a protest has been made time and again, with some effect undoubtedly, at least in this vicinity, but not with all that can be desired; for not unfrequently these "questions" are thrust upon practitioners in a manner to render consent or refusal very unpleasant. We therefore ask of you to reprint reasons for "declining to answer" which we prepared; and which were, with the hearty endorsement of the editors, published in this JOURNAL a dozen years ago, as follows:—

The family physician, by answering such questions, virtually makes himself an agent of the Insurance Company, and if they are induced, by any inadvertence, error, or design of his, to assume an improper risk, however great may be the ultimate damage to the physician, the Company cannot escape thereby the payment of the amount insured. This is the legal aspect of the case. It is not altered by the applicant’s wish to have the questions answered, since he only follows the directions of the Company.

As business men, money seekers merely, the Company ought not to expect that a physician, having no interest in their enterprise, will, for their exclusive benefit, voluntarily seek out and disclose to them, or put on record—the ultimate disposition of which he may know, and over which he can have no control—the constitutional weakness and physical defects of a patient and friend, in whom he may have great interest, and whose prospects he may not wish to disparage, much less to fatally injure. Yet the physician is, in fact, asked to do even thus much, to save a Corporation from the risk of a pecuniary loss.

For their own protection, the Company has, or should have, competent examining and consulting physicians, on whose investigations and judgment they should be willing to rely.

The relation between physician and patient is such, that a public parade of the former’s knowledge and opinions, relative to the physical infirmities of the latter, may be accompanied, in almost every instance, with, to say the least, many serious objections. To medical men, these objections need be only alluded to. To such they are sufficiently obvious and obligatory. If they are not so to insurers, it may be from want of experience in that direction; but while they can obtain all needed information through their own examiners, without incurring these objections, they ought to be satisfied therewith.

In a word, Life Insurance Companies have no right whatever to make such demands of medical attendants, and it is quite time that the practice be discontinued.

We wish now to add to the reasons in the preceding extracts, that up to this time no good reason has been given why "the family physician" should answer such "questions" propounded by Insurance Companies. Certainly he should not do it for the sake of a fee,—there are some things which should be above, and unreachable by, price.

June, 1873.

IATROS.
MEDICAL MISCELLANY.

Medical Miscellany.

Dr. Henry Tuck has been elected one of the physicians to out-patients at the Massachusetts General Hospital.

We are sorry to learn that Mr. Erichsen has been forced by illness to abandon work for some time to come.

It is unkind of the Chicago Medical Examiner to accuse us of reporting incorrectly the proceedings of the American Medical Association, for we have not noticed them at all.

The Trustees of Jefferson Medical College, unable to agree upon a successor to Prof. Pancoast, have adjourned the selection to October next.

Cholera of a virulent type has broken out in Cawnpore, and in Lucknow smallpox has made its appearance.

Rigid Examinations.—Within the last ten months there have been four hundred and forty-three candidates for membership of the Royal College of Surgeons, England. Of this number, one hundred and four have been rejected.

Dr. Colton thinks this the only dental, medical or surgical journal that does not acknowledge that Dr. Wells discovered anesthesia. We naturally feel flattered, but fear that a large number of our contemporaries will not permit us to accept the compliment.

Wright’s Formula for Headache following Alcoholic Debauch.—Take of solution of acetate of ammonia, tincture of bitter orange peel, syrup of bitter orange peel, each 20 parts; water, 500 parts. To be given in repeated tablespoonful doses.—Revue de Thérap. Med.-Chir.; Canad. Medical Record.

Re-printed for the use of prohibitionists.

Harvard University—Changes, &c.—Charles B. Porter, now demonstrator, to be assistant instructor in surgery; Clarence J. Blake, M.D., and J. Orne Green, M.D., lecturers on aural surgery; F. B. Greenough, M.D., and E. Wigglesworth, M.D., lecturers on syphilis; James R. Chadwick, M.D., lecturer on the diseases of women; Charles P. Putnam, M.D., lecturer on the diseases of children; James J. Putnam, M.D., lecturer on the application of electricity to nervous diseases.

Rupture of the Bladder from Injury; Recovery of the Patient.—Dr. J. Mengus (Abeille Médicale) records a case of this accident where the usually fatal result did not ensue.

At 9 o’clock in the morning, a young man, act. 34, fell on the edge of a winepress from a considerable height; he immediately felt an acute pain in the pelvic and right hypochondriac region, but was able to walk and get home to bed. He was seen two hours after the accident, and presented the following symptoms:—Pulse very slow and feeble; the right side of the belly swollen, tender, and dull on percussion; he had not passed urine since 4 o’clock in the morning, and could now pass only a few drops. A catheter was passed, which obtained but a few more drops, and a careful examination was made of the bladder, but no rent or opening could be ascertained. The bladder was then injected with warm water. The greater part, but not all, flowed back, tinged with blood. He was treated with opium, camphor, and quinine in pill frequently repeated. On the same day, in the evening, the pain increased; leeches were applied over the belly; he restrained himself from drinking as far as possible, and by the fourth week the symptoms had disappeared. He could retain and urinate as before.—Dublin Medical Press and Circular.
ONE profession (says Punch) is safe from the invasion of woman. She may enter the army, but it is impossible that she can man the navy.

The Overseers and Trustees of Bowdoin College have made the following elections for the Medical School of Maine. Dr. E. W. Jenks, Professor of Diseases of Women; Dr. Alfred Mitchell, Professor of Obstetrics and Diseases of Children; Dr. Robert Amory, Professor of Physiology; Dr. T. H. Gerrish, Professor of Materia Medica. The statement in some of the daily papers that Dr. Dwight was elected Professor of Anatomy is not strictly correct. He was re-elected, in order to correct certain clerical irregularities.

UNCIVIL JOURNALS.—The Western Lancet, of San Francisco, shows its usual good taste in re-publishing our article (occupying twenty-one pages of that journal) on 'Rhus Venenata and Rhus Toxicoedendron,' by Dr. James C. White, with the remark that it is 'peculiarly interesting' to practitioners on that coast. No remark is made, however, as to the source from which the article was taken. The February number of 'the largest medical monthly in America' contained over fifty-nine pages of material taken from the New York Medical Journal, without the slightest acknowledgment—one paper contributed by Dr. Sims constituting nearly half that issue.—New York Medical Journal.

NOTES AND QUERIES.

Why do not booksellers advertise their literary works more freely and frequently in medical journals? Are they not aware that, as a general rule, physicians are the great promoters of reading and study in the various circles of their clients, especially in county places? If they are unable to buy books themselves, they recommend, and cause to be bought, great numbers. Here now is a suggestion—what enterprising publisher will try it in this Journal?

A GOOD Word for our (Vermont) Homeopathists. —It is at least creditable to our homeopathicists, in Vermont, that whilst those in Massachusetts have been absurdly fighting for affiliation with the State Medical Society, our own Hahnemannists are in entire accord with ourselves in our repugnance to professional association with each other.

Vermont, July 3d, 1873.

GALEN.

MORTALITY IN MASSACHUSETTS.—Deaths in twelve Cities and Towns for the week ending July 5, 1873.


Prevalent Diseases.—Consumption, 41—cholera infantum, 41—pneumonia, 16—scarlet fever, 13.

Four deaths from smallpox occurred in Holyoke and two in Somerville. The deaths from scarlet fever were in Boston and Fall River.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.
Original Communications.

OVARIAN TUMOR REMOVED BY ENUCLEATION.

By Walter Burnham, M.D., Lowell, Mass.

Case CXCIX.—Ovariotomy.—On the 17th of last month, I was called to visit Miss A. W., of Vermont, aged 22, who had been suffering from the inconvenience of an enlargement of the abdomen for about four years. She had menstruated regularly, and had but little pain and inconvenience, except from the size and pressure. She could exercise freely, but not rapidly; and chose to be upon her feet a considerable portion of the time, as the sagging of the tumor relieved the pressure upon the lungs and heart.

I arrived there, in company with Dr. Sherwood, of Fairfield, at about ten (10) o'clock, A.M., and made a hasty examination, and soon was satisfied that I had a unilocular cyst only to contend with, and, also, that there were not extensive adhesions; but as I could only move it to a limited extent, I also concluded that it had only a short pedicle. I advised Dr. Sherwood that we had better make preparations and operate the same day. He at once sent a messenger for some other medical assistants, who were prompt at the appointed time. The table was prepared in the usual manner, and a tub placed under the table to receive the contents of the tumor, and at 1.30, P.M., she was dressed for the occasion and placed herself upon the table without assistance. Chloroform was administered by her attending physician till she was in an anaesthetic state, when the napkin was changed for one moistened with ether, and immediately I was informed that she was ready for the operation. My first incision was made two inches below the umbilicus, and carried down over the linea alba about three inches to the peritoneum by a free cut; then I seized the peritoneum with the forceps, and carefully cut through it by a horizontal stroke of the scalpel, when I introduced a grooved director, and completed the incision through that membrane with a bistoury, as far as the angles of the incision through the skin. About two pints of serum flowed from this incision, which caused a little delay. I then introduced T. S. Wells's ovarian trochar into the cyst and drew off near fifty (50) pounds of clear, limpid serum, which passed into the tub under the table, through a three-fourths inch rubber tubing that was attached to the trochar. This done, I drew the...
sac through the incision upon the surface of the abdomen. I had previously informed Dr. Sherwood of my intention to enucleate the cyst in this case, and explained to him the process, that he might intelligently assist me if required.

I then made a small slit through the peritoneal coat near the pedicle, and with the handle of my scalpel separated the two coats from each other to a small extent, until I could grasp them in either hand, and at once completed the separation by pulling them apart, and thus removed the entire sac proper as belonging to the tumor; while that portion composed of peritoneum was laid back upon the abdomen, that I might examine it, and wait a little for hæmorrhage to start, if at all. The effects of the atmosphere, though at a high temperature, soon contracted and corrugated the peritoneum to less than half its size, when I separated the cyst from it. On examination of the inner surface of the peritoneum, I found the vessels spread out upon it in a complete net-work, like that of an inflamed conjunctiva largely magnified; but there was no hæmorrhage, except one small artery where I divided the peritoneal coat; and here a small clot had formed, and I thought best to put on a ligature, as I did also on one upon the omentum, leaving the ends out at the lower angle of the incision, to keep it open for the discharge of any matter that might be deposited in the cavity.

After waiting more than an hour to allow the force of the heart to return, the sac was covered by a warm napkin before returning it into the abdomen. But finding no bleeding, I then placed it back into the cavity of the abdomen, and closed the wound by three sutures, one of which I passed through the edge of the peritoneum where I made the slit, to secure that point to the opening, in case any clot should form and require suppuration to remove it. Over this, adhesive straps and a compress of cotton, to fill the vacuum of the abdomen, were placed upon her, secured by a straight bandage.

I have made one hundred and ninety-nine (199) ovarian operations, and, so far as the removal of the tumor and completion of the operation was concerned, this was done sooner by six minutes than I have ever before performed it; and without any attempt at haste. But this method has the advantage also of not requiring any ligatures to bleeding vessels, or the pedicle, or any clamp even, for as there are no vessels cut there are none to bleed. But, as this was the first time I had made the operation in this manner, I thought it prudent to leave it so I could watch it myself for an hour.

I believe Dr. Miner, of Buffalo, N. Y., was the first to recommend this mode of treating the pedicle, and much credit is due to him for what seems to me a very great improvement over all others; both in convenience to the surgeon and in the safety of the patient.

After the delay in the dressings until the ether was fully exhausted, she was dressed for the bed and carefully laid into it, and the eighth of a grain of morphia given her. She soon after fell into a quiet
sleep for an hour, and, waking, complained that she had had no dinner, and was hungry. Took a cup of gruel, which was repeated through the night as she demanded; took another eighth of a grain of morphia in six hours, and slept half the night.

18th, 6, A.M.—Had some headache; pulse had increased to 100; and, after inquiry, I found she had suffered for two hours with retention of urine. I drew off about a quart of water, which relieved her head, and the pulse returned to 80.

May 31, received a letter stating that she had been doing well all the time, had good appetite, &c. She is now nearly well, the sutures removed, the ligatures have both come away, and the wound all closed; but I do not think it best to allow her to go out too soon, or to move about the house much.

I shall be glad to see other surgeons adopting Dr. Miner’s plan by enucleation, and let the profession know the results.

I consider this case as cured in two weeks, although it is prudent to require her to remain quiet for several weeks more. I have never closed the wound, or allowed it to close, until all the ligatures have come away; and I have many times seen a great advantage in having the ends to manipulate with where abscess has formed, and I have never yet seen any objection to their presence. Besides, I have several times known serious harm, and even fatal results, where other surgeons have cut the ligatures short and closed the abdomen over them. Abscesses have formed and opened in the perineum by the rectum, vagina, and at the point of incision. In all of my cases, I have had but one where abscess or suppuration has followed the operation with bad results. That one occurred twenty (20) days after, and rapidly terminated fatally, and it was not till after a post-mortem examination that an abscess was suspected, so rapid was the progress.

NOTES ON THE PNEUMOGASTRIC.

By J. F. Alleyne Adams, M.D., Pittsfield.

(Continued from page 61.)

Influence of the Pneumogastric upon the Lungs.—Recent experiments have made important additions to our knowledge of the nervous processes concerned in respiration. In the first place, Flint conclusively shows that the sense of want of air (besoin de respirer) is not communicated to the nerve centres by the pneumogastric; for respiration continues after section of those nerves. Further than this, Brown-Séquard maintains that the generally accepted view that the centre of respiration is located in the medulla oblongata, at the nœud vital, or vital point of Fleurens, is erroneous; for, although respiration is
instantly arrested by section or a mere prick at this point, yet section of the medulla or the spinal cord below this point, and above the level of the respiratory nerves, does not, in young mammals and adult birds, immediately stop the rhythmical respiratory movements; and he has even found the contractions of the diaphragm to continue for a time, with great regularity, when its communication, not only with the medulla, but also with the spinal cord, has been cut away. From these observations, it is necessary to believe that the diaphragm is, to a certain extent, an independent organ, containing in itself, as does the heart, sympathetic nerve centres controlling its movements. But the vagus, although not indispensable to respiration, yet exerts upon it a powerful influence, whose nature will best be seen by noting the result of certain experiments.

If both pneumogastrics are divided in the neck, in dogs, the number of respiratory acts is at first increased; but, as soon as the animal becomes tranquil, the number is diminished, sometimes falling from sixteen or eighteen to four per minute. The inspirations are, at the same time, unusually profound, attended with excessive dilatation of the thorax. Death usually occurs in from two to five days, and, in most of the animals so dying, the lungs are found engorged with blood, so that they sink in water. This carnification is explained by Bernard as due to a rupture of the pulmonary capillaries, consequent upon a traumatic emphysema, resulting from the excessively deep and labored inspirations.

If galvanization be applied to the pneumogastric in the neck, the effect upon respiration varies, according as the excitation is feeble or energetic. A feeble current accelerates respiration, and renders it more vigorous, especially in inspiration, although, if the feeble current is applied very high up, near the origin of the nerve, respiration is arrested. If a powerful galvanic current is applied to the pneumogastric, in any part of the neck, respiration is arrested by a spasm of the diaphragm; but it speedily returns, even during the excitation. After the removal of the excitation, breathing is accelerated.

Galvanization of the superior laryngeal nerve, whether energetic or feeble, arrests respiration, by paralyzing the diaphragm. Galvanization of the recurrent laryngeal generally produces the same effect. Respiration is also sometimes arrested by the galvanic current applied to the pharynx or esophagus.

Galvanization of the lungs produces persistent spasm of the diaphragm, and consequent arrest of breathing in inspiration.

From these experiments, it appears that the pneumogastrics exert a normal stimulant influence upon the function of respiration, and that, under certain circumstances, they may also exert an inhibitory power. The inhibitory effect is produced in one of two ways:—first, by a paralyzation of the inspiratory muscles, induced by irritation of the superior or inferior laryngeal, the pharyngeal or esopha-
gastric branches; and, secondly, by a spasm of these muscles, from irritation of the trunk of the vagus, or its ramifications in the lungs.

The first of these modes of inhibition occurs normally in the act of deglutition. It is impossible to breathe, while swallowing; not only because the larynx is closed by the epiglottis, but also because there is a momentary reflex paralysis of the diaphragm, from irritation of the pharyngeal and superior laryngeal nerves.

In the operation of tracheotomy, a temporary stoppage of respiration not unfrequently occurs, from irritation of the inferior laryngeal nerve. The same effect has been observed by Brown-Séquard, on suddenly stopping the mouth of a tube introduced into the trachea of dogs or rabbits, all respiratory effort at once ceasing.

 Arrest of respiration also takes place upon submersion. That this arrest is not dependent upon the spasmodic closure of the glottis, which also occurs, has been shown by Bean and Brown-Séquard, by submerging an animal in whose trachea a tube had been placed, whose free extremity communicated with the atmosphere. Even in this case, no effort was made to breathe, or if so, not till after some seconds. Bean asks if this arrest is due to the influence of cold upon the mouth and nostrils. Brown-Séquard answers the question by submerging an animal in warm water, in a similar manner, and finds respiration again suspended. He concludes that the irritation produced by the contact of either cold or warm water upon the mouth and nostrils, produces, by its suddenness, a reflex arrest of breathing. If the trunk or limbs are dipped in water, breathing is accelerated; but it is arrested by the sudden dashing of cold water upon any part of the body, an illustration of Bert's law that any gentle irritation of centripetal nerves increases the number of the respiratory movements, and any powerful excitation diminishes them.

The engorgement of the lungs following section of the pneumogastrics in the lower animals, is also seen in man, when, from any cause, that nerve is severed. A case occurred at the Boston City Hospital,* in 1865, of a woman, whose husband very skilfully divided with a knife the right pneumogastric, as well as the internal jugular vein and the neighboring muscles. She was attacked, on the tenth day, with congestion of the right lung, which passed off on the thirteenth.

Coughing is a reflex, spasmodic contraction of the expiratory muscles, produced by irritation of the inferior laryngeal or pulmonary branches of the pneumogastric. In asthma, there is, according to Salter, a spasmodic contraction of the bronchial tubes, caused by pneumogastric irritation. This irritation is generally reflex, from impressions upon the respiratory or gastric mucous membrane, or the skin; but may arise, as well, from cerebral disturbance. Neftel † has contributed some interesting observations upon the

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* Boston City Hospital, Med. and Surg. Reports. 1870. Surgical Report, by Dr. D. W. Cheever.
treatment of this most obstinate affection by galvanization of the pneumogastric. He uses the polar method, applying a current of gradually increasing intensity, all large fluctuations being carefully avoided, by means of the rheostat, and reports a marked degree of success, the paroxysm usually passing off, in from two to ten minutes. But he finds the relief afforded sometimes by the anelectrotonic, and at other times by the catelectrotonic condition of the vagus. Reasoning from the spasm-theory of asthma, it was to be expected that the former alone could give relief; but Neftel has found that in certain cases, the attack is arrested by the latter condition, after the former has failed. In explanation of this peculiarity, he suggests that the theory, held by Walshe and others, that asthma is due to a paralytic condition of the muscular coats of the bronchial tubes, may be true of some cases, while others are the result of spasm, the former class being relieved by catelectrotonus and the latter by anelectrotonus. The idea is certainly plausible, but, in the present inchoate condition of galvanotherapeutics, we must await further evidence before accepting it.

[To be concluded.]

Syphilitic Disease of the Placenta.—The Med. Times and Gazette, May 10, 1873, gives a summary of Dr. Ernest Fränkel’s views on this subject. Dr. Fränkel’s article contains the history of over twenty cases of syphilitic placenta. He summarizes his observations in the following conclusions:—1. The placenta may become affected by syphilis, and there are certain characteristic indications of this. 2. The syphilitic placenta occurs only in hereditary or congenital syphilis in the foetus. 3. The seat of the disease varies according as the mother remains healthy, and the syphilitic virus is communicated directly from the father to the ovum by means of the semen; or according as the mother is diseased. In the former case the affected fetal villi of the placenta degenerate through proliferation of cellular granulations, with consecutive obliteration and atrophy of the vessels, complicated frequently by marked proliferation and thickening of the epithelial covering of the villi. 4. In the latter case, when the mother is syphilitic, the three following conditions may occur:—a. The mother, through the act of impregnation, is simultaneously affected with syphilis with the foetus; diffused syphilis of the placental villi may then develop itself, though primary infection of the maternal parts—endometritis placentaris—is not excluded. b. The mother becomes infected before, or shortly after, conception. The placenta may remain normal or become diseased under the form of endometritis placentaris gummosa, or, according to Virchow, in a more limited sense—endometritis deciduosalis. c. The mother becomes infected only during the latter months of pregnancy (seventh to tenth month). It then generally happens that, in case the father was healthy at the time of impregnation, the foetus, as well as the placenta, is exempt from the above-described alterations. 5. The infection of the foetus on passing through the maternal passages is rare, and not yet proved conclusively.
The reports of medical societies.

REPORT ON PHYSIOLOGY.
By H. P. Bowditch, M.D.

[Concluded from p. 67.]

Localization of Cerebral Functions.

Fritsch and Hitzig.—Über die elektrische Erregbarkeit des Grosshirns. Archiv für Anatomic, Physiologie und wissenschaftliche Medicin, 1870, p. 300.


Beaunis.—Note sur l'application des injections interstitielles à l'étude des fonctions des centres nerveux. Gazette Médicale de Paris, 1873, Nos. 30-31.

Notthage.—Interstitielle Injectionen in die Hirnsubstanz. Centralblatt für die med. Wissenschaften, 1872, p. 705.


Ferry.—Experimental Researches in Cerebral Physiology and Pathology. British Medical Journal, April 26th, 1872.

J. Hughlings Jackson.—On the Anatomical and Physiological Localization of Movements in the Brain. Lancet, 1873, p. 84.


On the Sudden or Rapid Arrest of many Normal or Morbid Phenomena. Do., i. p. 87.

The phenomena of aphasia were at one time regarded by most physiologists as affording satisfactory evidence that at least one mental faculty has its seat in a definite, circumscribed portion of the brain. The accumulation, however, of recorded cases in which the disease has been observed without the lesion, and of those in which the lesion has been found without the disease (among which may be mentioned the celebrated "crow-bar case"), has gradually led to the abandonment of this view, as being, at best, only a partial expression of the truth.

The experiments of Fritsch and Hitzig have opened a new field of physiological investigation, and seem to furnish the best evidence we have of a localization of functions in the cerebral substance. These observers removed the upper portion of the skull of dogs, with the exception of a narrow strip of bone over the longitudinal sinus, and irritated the exposed surface of the brain with weak constant and in-
duced currents. When the electrodes were placed upon the anterior portion of the cerebral lobes, muscular movements of various sorts were produced, which was not the case when the posterior portion was irritated. This is of interest, since, according to Meynert's anatomical investigations, the motor nerves are in communication with the anterior and parietal, and the sensitive nerves with the posterior and temporal portions of the brain. Fritsch and Hitzig further discovered that, by irritating certain definite portions of the convolutions, particular groups of muscles on the opposite side of the body could be brought into activity. In this way, "centres" were demonstrated for the muscles of the neck, for the extensors and adductors of the forearm, for the flexors and rotators of the arm, for the muscles of the foot and for the facial muscles. To control these results, the experiment was tried of boring through the skull of dogs at a point, determined by previous experiments to be the centre of movement of the right foreleg, and removing a small portion of the gray substance. Dogs thus operated upon were found to have only an imperfect control over the movements of the limb in question.

In this connection is to be noted a case of depressed fracture of the temporal bone, reported by Wernher, in Virchow's Archiv for 1872. Convulsion and paralysis occurred in those muscles whose "centres" were involved in the injury.

The observations of Fritsch and Hitzig have been confirmed and extended by Ferrier, who has, however, as yet published his results only in the form of a brief "preliminary notice." The following are some of the most important of his conclusions:

I. Those groups of muscles which may be regarded as most voluntary, i.e., those which are in frequent and varied action, have particularly well-marked centres in the cerebral hemispheres. Thus, the centres for the muscles of the tail in the dog, for those of the paw in the cat and for those of the lips and mouth in the rabbit, were found to be very strongly pronounced.

II. The action of the hemispheres on the muscles is generally crossed, "but certain movements of the mouth, tongue and neck are bilaterally coördinated from each cerebral hemisphere."

III. The cerebellum contains centres of coördination for the muscles of the eye, injury to which causes loss of equilibrium.

This last conclusion seems also to be justified by the observations of Hitzig on the effects of a galvanic current directed through this portion of the encephalon. If a constant current is directed from one mastoid fossa to the other, dizziness is produced, accompanied by apparent movements of external objects from the side of the anode to that of the kathode. These are due to real unconscious movements of eyes in the opposite direction. If the eyes are closed, the body seems to be falling to the side of the kathode, and an effort is made to recover the equilibrium, which results in a fall to the opposite side. The rolling movements of animals after injury to the cerebellum are explained by Hitzig on the supposition that the animal so affected has continually the impression that it is falling to the injured side, and consequently makes violent efforts which carry it constantly in the opposite direction.

To avoid the general disturbance resulting from the removal of a

* See, also, Report on Electro-Therapeutics, this Journal, Oct. 31st, 1872.
portion of a nervous centre, Beaunis and Nothnagel attempted to destroy the functional activity of definite portions of the brain by the injection of various fluids. Nothnagel injected a concentrated solution of chromic acid through a fine subcutaneous syringe. The effect is to color green and to harden the cerebral tissue with which the acid comes in contact. Around this portion a very circumscribed inflammation is produced, and its functions may be considered as annihilated. Rabbits were found to survive this operation only from one to three weeks. It can scarcely be regarded, therefore, as simply annihilating the function of the part affected. The results of Nothnagel's experiments confirm, in general, those of Fritsch and Hitzig. The former observer, however, distinguishes the motor centre of the limbs from the centre of muscular sense. Both lie close together in the anterior portion of the opposite cerebral lobe, the former a little farther forward than the latter. The great advantage of Nothnagel's method is that it enables him to operate upon the deeper portions of the brain without destroying the more superficial parts.

Lesions of the brain are termed, by Hughlings Jackson, "destroying" or "discharging," according as they annihilate or stimulate the functional activity of the parts where they occur, the former causing paralysis and the latter convulsions, when occurring in parts of the brain connected with the muscular system. The study of destroying lesions of the corpora striata has shown that the paralysis thereby produced on the opposite side of the body attacks first the more voluntary and afterwards the more automatic muscles. The same order is observed in the case of destroying lesions which affect only mental phenomena, the brain, in undergoing slow deterioration, becoming more automatic and less voluntary in its actions. Something of the same sort seems to take place in the temporary mental paralysis produced by alcohol, thus affording a physiological explanation of the saying, "in vino veritas."

"Discharging" lesions also show the same peculiarity in regard to the order of the muscles affected, convulsions beginning most frequently with the hand, less frequently with the face, and still less frequently with the foot.

Hughlings Jackson refers to Ferrier's experiments as artificially produced discharging lesions, and regards the study of discharging lesions, natural and artificial, as the only method by which the localization of functions in the cerebral lobes can be determined; for though a destroying lesion may annihilate the functional activity of a certain portion of the brain, it is quite possible that its functions may be discharged by some other portion, and thus no effect of the injury be apparent. On the other hand, a discharging lesion, by bringing a certain portion of the brain into activity, must always produce some definite effect. The recognition of this power of vicarious activity in the different parts of the central nervous system will doubtless explain many apparent contradictions between pathological observations and physiological experiments; for it is quite conceivable that experimental destruction of a certain part of a nervous centre may cause serious functional disturbance, while pathological degeneration of the same part, occurring slowly and allowing time for other portions to assume the functions of the part affected, may produce no such result.

In the recently published views of Brown-Séquard on nervous phy-
siology, the so-called "inhibitory" processes play a much more important part than has been heretofore assigned to them, twenty different kinds of inhibitory phenomena being enumerated, of which the arrest of the heart by the galvanization of the vagus nerve is the best understood. Both the production and the cure of a great variety of mental disturbances are due, according to this author, to inhibitory influences proceeding from one portion of the central nervous system to another. While admitting "that a considerable alteration of the whole extent of the cortical parts of the brain will affect the mental faculties in a direct way, i. e., as taught by the old theories," Brown-Séquard concludes, "from the study of every symptom of brain disease, that all parts of the brain resemble the peripheric parts of the nervous system, in being able, under irritation, to act on any of its other parts, modifying their activity, so as to destroy, or diminish, or to increase and to morbidly alter it." In other words, an injury to any one portion of the brain may produce not only the direct effects of a destroying or discharging lesion of the part affected, but also an indirect effect upon any other portion of the brain; and this indirect effect may be either to increase, to diminish, or to morbidly alter the functions of the part thus affected. With such unlimited possibilities in the way of effects, cerebral lesions may well be regarded as defying diagnosis.

Trophic Nerves.


Power.—The Influence of the Nerves on Nutrition. Practitioner, March, 1873.


Vulpian.—Recherches relatives à l'influence des lésions traumatiques des nerfs sur les propriétés physiologiques et la structure des muscles. Archives de Physiologie, 1872, p. 245.

Hayem.—Note sur deux cas de lésions entanées consécutives à des sections de nerfs. Archives de Physiologie, 1873, p. 212.


The question whether the nerves exercise any direct influence upon the nutrition of the tissues to which they are distributed is one of great practical importance; for, as Dr. Anstie well observes, "the hope of discovering scientific and intelligible rules for guidance in the employment of many important remedies, and especially electricity, depends largely upon our coming to a decision on this matter." Notwithstanding the great number of experiments and observations that have been made with a view of throwing light on this question, there is still a great difference of opinion amongst writers on the subject. Joseph concludes, as the result of his experiments on frogs, that in these animals the nerves exercise absolutely no direct influence on the nutrition of the tissues. Section of the nerves of a limb produces no disturbance of nutrition, excepting the slow atrophy resulting from functional inactivity, and irritation of the nerves is likewise without effect. Wounds heal as perfectly and as rapidly whether the nerves supplying the parts are divided, irritated or left intact.
Power also denies the existence of trophic nerves, and refers the nutritive disturbances which are known to frequently follow nerve lesions in man and the higher animals either to irritation or to paralysis of the vaso-motor nerves, or to a loss of functional activity of the part. He cites various instances of tissues, both normal and pathological, which are destitute of nerves, and where, nevertheless, nutrition takes place; but this, of course, is no proof that nerves may not influence the nutrition of the tissues in which they are present, any more than the absence of bloodvessels in the cornea is a proof that the circulation of the blood plays no part in the processes of nutrition.

Charcot, who discusses the whole question most thoroughly and systematically, rejects the theory that paralysis of the vaso-motor nerves alone can cause trophic disturbances, for section of these nerves in animals is not followed by any such results if care is taken to exclude all other possible causes of trouble, though the hyperæmia thus produced creates, without doubt, a certain predisposition to inflammations. Moreover, the lesions of the skin, muscles, joints, &c., which occur in man, as the result of injuries to nerves, are not accompanied, as a rule, by signs of vaso-motor paralysis or irritation.

"Nothing is better established in pathology," says Charcot, "than the existence of these trophic disturbances as the result of lesions of the nervous centres or the nerves. And yet the most advanced physiology teaches that, normally, the nutrition of the different parts of the body does not depend essentially upon an influence of the nervous system." To explain this apparent contradiction, Charcot accepts the proposition first announced by Brown-Séquard, that section of a nerve causes, in the tissues supplied by it, only those slow changes which are due to a functional inactivity of the part, while irritation of a nerve may produce, with considerable rapidity, a variety of lesions which have generally more or less of an inflammatory character. On this principle are to be explained the results of incomplete section, contusion, &c., of nerves, these injuries causing irritation of the nerve in consequence of the inflammation which they produce. This is quite in accordance with the views of Weir Mitchell, derived from the observation of gun-shot wounds of nerves.

On the other hand, the observations of Vulpian on the influence of nerve-lesions on the muscles which they supply, lead him to the conclusion that, as far as the effect on muscular contractility is concerned, there is little difference between a section, an excision, a contusion, a ligature and a cauterization of the nerve. In this connection is also to be noticed a case, reported by Hayem, of section of the median nerve by a splinter of glass, resulting in loss of motion and sensation in the thumb, index and middle finger, followed, after six weeks, by a particular eruption and ulceration of the ends of the fingers. As there was never any great pain, it seems unlikely that an inflammation of the nerve at the level of the wound could have been the cause of the morbid phenomena.

Whatever may be the result of section of a nerve on the nutrition of the parts to which it is distributed, there is no doubt that the peripheral portion of the divided nerve undergoes changes, usually described as degenerative, in consequence of which it loses its irritability. That these changes involve the destruction of the axis-cylinder is now generally admitted, but the way in which this result is brought about
is still under discussion. Ranvier has recently investigated the subject in the light thrown upon the question by his observations on the structure of the normal nerve fibre.* He finds that, immediately after the section of the nerve, the nuclei of the peripheric portion enlarge and proliferate, and the protoplasm around them increases in amount in such a way as to press upon the medullary substance and axis-cylinder and, finally, to destroy their continuity. This happens about the third or fourth day after the section, which is about the time at which divided nerves are found to have lost their irritability. Ranvier considers that an influence proceeds from the nervous centres which regulates or controls the nutrition of the nerves and of the tissues to which they are distributed. Section of the nerve is therefore followed by an uncontrolled and irregular growth (often leading to destruction) of the parts thus deprived of nervous influences.

It will thus be seen that the question is far from being settled. It would at first sight seem improbable that section and irritation of a nerve should both produce the same effect upon the tissues to which the nerve is distributed; but it must be borne in mind that it is probably impossible to produce experimentally a simple withdrawal of the tissues from the influence of the nerves, for a section of a nerve, however carefully accomplished, is liable to produce a certain amount of irritation both at the time of section and in the course of healing. The observations of Ranvier, showing a similarity in the processes which take place in the peripheric end of a divided nerve and in tissues whose nerves are irritated, may be regarded as indicating that the so-called degenerative changes in divided nerves are really due to irritation at the point of section. Moreover, the fact that divided nerves, after undergoing so-called degeneration, are regenerated without reunion of the divided portions, seems to show that the changes in the peripheric portion cannot be due to a mere absence of an influence proceeding from the nervous centres. If this view be correct, there is only a difference in degree between the effects of section, and those of irritation, of a nerve; and while we cannot admit the existence of special nerve fibres charged with conveying trophic influences to the tissues, we must yet acknowledge that, in certain morbid states of the nerves and nervous centres, an influence is transmitted to the tissues in consequence of which disturbances of nutrition occur.

Propylamine.—This drug is contained in the flowers of Crataegus oxyacantha, in the fruits of Sorbus aucuparia, in the Chenopodium vulgar, and in the ergot of rye, &c.; but it exists in greatest abundance in herring brine, where it is combined with an acid from which it may be separated by distillation with potassa. It is a colorless, transparent liquid, with a strong ammoniacal odor, soluble in water, and presenting even in weak solutions a strong alkaline reaction. It combines with acids to form crystallizable salts, and, like ammonia, produces dense fumes when brought into contact with the vapor of hydrochloric acid. It was discovered in 1830 by Wertheim. It is highly recommended as a remedy for acute rheumatism, the dose being one or two minims three or four times a day.

* This Journal, Sept. 12th, 1872.

Dr. McClelland, appointed on the Committee on Surgery, selected Civil Malpractice as the subject of his report. He begins by advertising to the almost total want of instruction on medical jurisprudence in our medical schools. He divides malpractice into two kinds: civil malpractice, in which patients bring suits for damages; and criminal malpractice, in which the people, or State, is made the plaintiff. Malpractice is "want of skill, and negligence." From the rulings and decisions of the courts, Dr. McClelland endeavors to determine "what the law requires of us as surgeons," and "what is considered skill and care by our leading authorities in medicine. The law on responsibility of surgeons is well laid down in Hilliard's Law of Torts"; this is transcribed in full and is very sound. The phrase "ordinary skill" is ingeniously defined, and many authorities are quoted. Adjudicated cases are narrated, and fill forty pages with interesting, instructive and important information. At the close of the most excellent and painstaking article on various adjudicated cases, an article showing an enormous amount of research and patience, and citations of hundreds of authorities, occurs this remarkable sentence:—"The union of 'shyster' and 'quack' is frequently met with in suits for malpractice, as many of the above cases show." What is meant by a union of "shyster" and "quack" is to us unknown. Perhaps the slang expression "shyster" (whatever it may mean) is good usage in Chicago.

Dr. McClelland goes on to discuss the matter of skill and negligence very ably. First he considers the duty of the surgeon in diagnosis. In doing this he gives us excellent rules from various authorities, and illustrates the difficulties by cases in point. Next, as to treatment and the management of accidents during treatment, Dr. McClelland quotes largely from Ashurst and also from Prof. Hamilton. "In respect to amputations, there is much error prevalent. The people suppose that whoever has performed an amputation of this character must necessarily be an eminent surgeon." The decision as to the necessity for the operation requires the highest degree of surgical skill and judgment, and Gross's and Hamilton's opinions on this question are given as authorities.

"What conclusions," he asks, "may be deduced from these judicial and medical views of 'skill' and 'negligence?'" Dr. McClelland's conclusions are the following:—"Although no surgeon, however eminent, is exempt from the danger of suits from ungrateful patients, the law is for the surgeon's protection as well as for the patient's. . . . . We need nothing more to make our protection perfect than the enactment of some statute, like that proposed for New York, which will oblige the plaintiff to secure us against all loss in case he does not maintain his suit. We should also be permitted to have one expert on the jury, and, too, there should be some way in which the professional standing of the prosecuting witness could be in-
vestigated, to the end that such nonsense as that given in the case of Haire v. Reese, wherein the plaintiff’s witness gave it as his opinion ‘that the head of the femur might be “crepitated” by absorption,’ may not continue to go to juries as sound medical evidence. Under no circumstances should we compromise such suits. We owe it to ourselves, we owe it to our profession, we owe it to the public whom we serve, to let the matter be tried by the strict letter of the law, and thus vindicate the honor of our profession.”

On the whole, Dr. McClelland has given us a very valuable little work, on an extremely interesting subject; the adjudicated cases are well detailed and of great value. It is to be hoped that the subject will be elaborated still farther.


The Mission for Animals is not to be confounded with the State Society for the Prevention of Cruelty. Its field of labor extends throughout the country. In the first circular it is stated that “The Mission for Animals is based chiefly upon the following reasons and considerations:—that the public health, economy and morals are, to a great extent, injuriously affected by our present modes of treating ‘live stock’ destined for food, clothing and other uses.” The condition of wild animals is also considered. The number of buffaloes slaughtered yearly is immense. It is estimated that in 1872 about 275,000 were killed in Kansas alone, and that a twenty-fourth of these, or about 11,458, were slaughtered in “sport and wantonness.”

Although we are not disposed to look very severely on a visitor to the West who would like the excitement of a buffalo hunt, we agree that such wholesale butchery should not be permitted. The moose will shortly be extinct in New England, and it is sad to think that the buffalo is likely to follow. We see, in this report, that the North Pacific whaling fleet kill walrus to such an extent that the inhabitants of Alaska are in great danger of being left without food. This strikes us as a case of cruelty to man, yet Congress took no action on a petition concerning it. The report gives some very painful accounts of the treatment of domestic animals, particularly on the road to the slaughter-house.

“An ambulance, or, quite as properly, a dead cart, usually follows a drove of hogs or sheep, and when one falls down it is picked up and tumbled in; and sometimes they are piled atop of each other until the cart is full. And if those first put in are not already dead, they are soon crushed into that painless state by those lying on them. This can be verified almost anywhere along the road from Brighton to Peabody. These animals are turned into mutton. Last January, I saw a large drove of hogs wallowing through the snow, up Friendship St., in Providence, followed by a large sled half-filled with those which had fallen down, unable to go. The sled was at least a dozen feet long, and the hogs were piled several tiers deep at the forward part, so as to make it convenient to stack them in behind, as fast as they should give out. The blood was dripping from the sides and tail of this sled. These animals were so overheated with their struggles to get through the snow, that, notwithstanding the intense cold, the street was filled
with a cloud of steam from their bodies. These creatures—those that ride and those that walk—are converted into pork, in all its varieties."

We hope that at our new abattoir such meat will not be received.

We like the way in which the report is written; it is plain and honest, and not, except in one instance, "gushing." Nor do the grievances complained of appear to be sentimental or trivial. Many similar societies have lost much prestige by making themselves ridiculous; nothing can be worse policy, for while there is so much severe suffering in the world it is wrong and silly to seek for petty and unnecessary grievances.

The Mission has our best wishes.

BOOKS AND PAMPHLETS RECEIVED.


Contributions to Practical Surgery. By George Norris, M.D., late Surgeon to the Pennsylvania Hospital, &c. Philadelphia: Lindsay & Blakiston. 1873. Pp. 318. (From James Campbell, Boston.)


An Examination of Prof. Reese's Review of the Trial of Mrs. Wharton for the Murder of General Ketchum. By Philip C. Williams, M.D. 1872. Pp. 31. (Re-printed from the Medical and Surgical Reporter.)

A Reply to Dr. H. C. Wood's Review of the Medical Testimony in the Trial of Mrs. E. G. Wharton for the alleged attempt to poison Mr. Van Ness. By Philip C. Williams, M.D. 1873. Pp. 31. (From the Richmond and Louisville Medical Journal.)

A TRIUMPH OF MORALITY.

It is with a feeling of unmitigated triumph that we make the announcement which will be seen lower down. Delighted with the reform itself, we are proud that it should have been due to the efforts of a Medical Society, proud that our city government should set so admirable an example, and proud that it should be the privilege of the Journal to be the first to make it public.

It will be remembered that the destructive fire of May 30th swept away one of the disgracees of the city, namely "Dr. Jourdain's Gallery of Anatomy." This exhibition was a type of its class; it was a collection of anatomical models and dissections, with representations of skin and venereal diseases, most improper for public exhibition, and calculated to excite the morbid curiosity of the young together with its peculiar forms of hypochondria. Vile pamphlets were on hand to induce those having or fearing disease to consult the proprietor. The harm which this single establishment must have done cannot be calculated. Directly after the fire, a sensational notice appeared in the papers to the effect that orders for new specimens had been sent by telegraph to some of the capitals of Europe, and that the place would re-open (if we remember right) on the fourth of July. This happily did not occur, and another advertisement, which still appears daily, was substituted, stating that the new museum would re-open (sic) shortly, and giving the address of the "Doctor's" office.

The following communication, which we are fully at liberty to publish, from the Secretary of the Boston Society for Medical Observation, shows that this nuisance is happily at an end.

"At a meeting of the Boston Society for Medical Observation, held in the hall of the Massachusetts Medical Society, June 16th, the following resolution was unanimously adopted:—

"Resolved, The Boston Society for Medical Observation respectfully petitions his Honor, the Mayor, and the City Government of Boston, in the cause of morality and public decency, not again to license such an exhibition as the "Gallery of Anatomy," so called, destroyed in the recent fire, and if any such license now exists, that it be annulled.

"It was also voted that a Committee of four be appointed to confer with the authorities at the City Hall in case they should desire any evidence as to the indecent and immoral character of the exhibition in question. The Chairman of the meeting appointed as the Committee, Drs. B. Joy Jeffries, Henry L. Bowditch, Edward Wigglesworth and William L. Richardson."
"A few days after the meeting, the Secretary of the Society called upon Mayor Pierce and presented a copy of the resolution. Mr. Pierce stated that the action of the Society met with his most cordial approval, and promised to bring the subject at once before the Committee on Licenses, of which Alderman Sayward was Chairman. The Secretary subsequently saw Mr. Sayward, who also expressed himself in perfect accord with the wishes of the medical profession as shown by this action of the Medical Observation Society.

"A few days ago the following letter was received from his Honor, the Mayor, written after consultation with Mr. Sayward and giving the latter's decision on the matter, as Chairman of the Committee on Licenses.

"Executive Department,
City Hall, Boston, July 8, 1873.

"Dear Sir:—I have the honor to acknowledge the receipt of your communication forwarding the copy of a resolve of the Boston Society for Medical Observation, relative to licensing the Gallery of Anatomy, so called, in this city, destroyed by fire, May 30, 1873.

"I can say in this regard that the proprietor of the Gallery of Anatomy has not as yet applied for a new license for his exhibition, and that such an application will be met by a refusal whenever it is made. Mr. G. E. Lothrop, recently applied for a license for a similar exhibition in Court Street, and was refused by the Board of Aldermen.

"Thanking you for bringing the matter to our attention,

"I am with respect, your obedient servant,

HENRY L. PIERCE,
Mayor.

To W. L. Richardson, M.D.,
See'y Boston Soc. for Med. Observation."

The importance of this decision is very great, and we think will have a most excellent effect not only for a long time to come in this city, but also throughout the country. Let the physicians in other cities imitate the action of the Society for Medical Observation, and even if they do not meet with such cordial support from the authorities, they at least will feel that they are in no way privy to the nuisance by the implied consent of silence. We should be doing less than justice to the sound will and right feeling of the Board of Aldermen, did we fail to call special attention to the fact set forth in the Mayor's letter, that it refused of its own accord an application for a license for a similar exhibition. It is good to see the government take so effective a step in the interests of public morality, and it gives us much needed encouragement to continue our efforts for the suppression of quackery.

The first annual report of the City Board of Health was submitted to the Board of Aldermen at its meeting of last week. The record of its first six months' work is a gratifying one. The brilliant results accomplished by them in their active suppression of the smallpox epi-
Disease of the Spleen in newy born Syphilitic Children.—M. Parrot, in the Mounvement Médical, states that newly born syphilitic children are subject to lesions of the spleen of two orders: one consists of enlargement, the other of inflammation which gives rise to false membranes around the capsule. He seeks to explain the augmentation of volume by the subordination of the vascular system of the spleen to that of the liver; for the latter organ being constantly affected by a special kind of cirrhosis in newly born syphilitic children, it follows that the spleen must become a reservoir for the blood which can no longer find a course through the liver.

As to the future of these lesions, M. Parrot is unable to speak positively for lack of sufficient observations; but he reports certain lardaceous alterations which have been met with at a more advanced age in those who were affected with syphilis at birth.

It should not be forgotten that our own countryman, Dr. Samuel Gee, noticed enlargement of the spleen in syphilitic children some years ago. Dr. Gee communicated a paper on this subject to the Royal Medical and Chirurgical Society in 1867. It was founded on observations made during the preceding four or five years.

The following is an abstract of the paper, which was entitled, "On Enlargement of the Spleen in Hereditary Syphilis and in some other Diseases of Children;"—
"I. In about one-fourth of the cases of hereditary syphilis, the spleen is much enlarged. Sometimes enlargement of the liver and lymphatic glands is superadded. The degree of splenic enlargement may be taken as a sort of index of the severity of the cachexia: the majority of cases with great enlargement die, but sometimes such children survive, the spleen gradually diminishing in size as the health improves, not diminishing, however, pari passu, with the improvement of health, but remaining for a long time a monument of past cachexia. Thus the spleen can often be felt in children three years old and upwards who bear the marks of past syphilis upon them. Sometimes an enlarged spleen is the only sign of an active syphilitic cachexia.

"II. In ague, also, it is sometimes the discovery of an enlarged spleen which first puts us upon the right scent, and enables us to detect the existence of ague which would otherwise be latent.

"III. Children in whom we can all but positively deny the existence of syphilis or ague occasionally acquire a greatly enlarged spleen, attended with a cachexia which is sometimes very profound. We can exclude leukemia, lymphatic anemia, rickets, idiopathic purpura, and primary disease of the liver in the cases referred to; whence it is inferred that children are subject to one or more cachexiae not yet defined, or else that the known cachexiae may present themselves shorn utterly of all the signs by which they may be recognized. For the cases in question, the name of simple splenic cachexia was proposed: the analogy with lymphatic anemia (Trousseau's adénie) was pointed out."—The Obstetrical Journal of Great Britain and Ireland.

TREATMENT OF CANCER OF THE UTERUS BY ERGOT AND ESCHAROTICS.—Dr. Milne, in a paper read before the Obstetrical Society of Edinburgh, claimed that the treatment of cancer of the uterus by the use of certain kinds of caustics was more satisfactory than by excision. The caustics recommended were the chloride of zinc, the nitrate of copper, and the dried sulphate of zinc; and the cases suitable were all those of encephaloid, carcinoma and epithelioma, where the cervix only was involved. One would not perform excision unless there was only a small portion of the cervix attacked by the growth, but the escharotic might be resorted to, and with benefit, when the disease was much more extensive.

As regards the mode of application of the caustics, the dried sulphate of zinc was to be first used, being applied to the cervix pretty freely through the speculum, the vagina being immediately thereafter plugged with cotton wool tipped at the uterine end with a little olive oil. This was to be applied until the slough came away, after which the cervix was to be injected with a saturated solution of nitrate of copper. This was done to attack any morbid cells lying beyond the sore from which the slough had separated.

In reference to the function of ergot given internally in cancer, Dr. Milne observed that it had usually been administered, and with benefit, as a hemostatic; but he believed it had another effect—it led to the atrophy of the uterus. This was an original observation which he claimed to have been the first to make. If it had this effect, then its therapeutic power was greater than had been previously imagined, and
could not but be viewed as of great value in uterine cancer. It was not only important to diminish the aflux of blood to the uterus, and thereby combat uterine congestion—a condition present in malignant disease—but it was no less so to induce uterine atrophy. This atrophy was natural after the change of life, at which period cancer advanced more slowly; and if we could antedate it, it would be reasonable to suppose that the progress of the dire disease would be retarded. In point of fact he had found such to be the case.

By the use of ergot and escharotics he had cured two cases of cauliflower excrescence, and in three medullary ones he had retarded the disease at least. If only a postponing of the period of dissolution was all that could be achieved, yet this result was worthy of our most devoted efforts. The great drawback in uterine cancer was the late period at which it came under professional notice. Usually the whole cervix and contiguous parts were involved, and every form of treatment was thus debarred. Let it be seen when limited to a part only of the cervix, and there was every hope that the ergot and caustic treatment would frequently cure, and often mitigate the more distressing symptoms while postponing death.—Obstetrical Journal of Great Britain and Ireland, May, 1873.

Correspondence.

The new Abattoir at Brighton.

Messrs. Editors,—Most of the readers of the Journal very well know that Brighton has always been, as a town, the principal abattoir of Boston. Its name has been distinctively associated with the sale and slaughtering of cattle; and the latter branch of industry has had anything but a sweet and wholesome savor in the minds of the people hereabouts. In the hands of the individual butchers, the trade became, for its notorious offensiveness, a perpetual thorn in the flesh to all residents of Brighton who were not engaged in butchering, and a passing reproach in the nostrils of all wayfarers. The stench hanging about these centres of pollution, contaminating the air of all the neighborhood, and the disgusting details of the business, the filth, the waste, the putrefaction of the offal and of other animal matters in the yards, or, worse still, in the piggeries adjacent to the slaughter houses, made a nuisance, of which, for a long time, there was no mitigation.

In vain did the town authorities expose the subject annually and attempt its reform; the butchers' guild was too strong to be disturbed through any of the existing processes of law. Then the State Board of Health was organized; and among the matters presenting for its deliberations, the slaughter-house nuisance of Brighton took an early and a prominent place. The various steps in the proceedings of this Board toward the abolition of the evil are of too recent occurrence to have been forgotten; they hardly need recital here. The matter was fully exposed in the first report of the Board, and the slaughtering business, as then carried on, was pronounced, unequivocally, to be an evil demanding immediate reform. Then the Legislature, moved by this Report, passed an act, incorporating an abattoir association; this act, the Brighton butchers, feeling tolerably well satisfied with their traditional habits of doing things, declined to take advantage of, and it became practically a dead letter for the time being. Then, because of this contumacy and indifference on the part of the butchers, special executive powers were imposed on the State Board of Health, under which the slaugh-
ter-houses were to be subject to the oversight of the Board, with the liability of being compelled to “cease and desist” if the Board considered them prejudicial to the “public health, comfort or convenience.” At about this time, moreover, a butcher died in Brighton of septic poisoning caused by cutting his hand while dressing an ox which had died of disease, and it was discovered that half of the diseased animal was taken to Boston to supply the demand for roast beef. This somewhat startling incident aroused that lazy and frequently latent force called “public opinion”; and, with the Legislature and public opinion to support the reform, the State Board of Health saw itself in a fair way to effect a revolution. It used its powers judiciously, conscientiously and prudently, and at the end of the year reported upon twenty-three cases which had come under its executive action.

The result of all this has, of course, been salutary; but it is as yet only partial. The slaughter-house nuisances of Brighton have been modified, but not wholly abolished; a number of establishments still remain to remind people of what once existed. It is to be hoped that these will, sooner or later, be made to feel the power of that sanitary supreme court—the State Board of Health—and be compelled to pursue less obnoxious courses.

Another result, besides the immediate closing of the most offensive of the slaughter-houses, has been the establishment of an abattoir under the act alluded to above. The wholesome incursion of sanitary forces to Brighton, opened the way for the practical working of the proposed company. The “Butchers’ Slaughtering and Melting Association” have completed their works, and they are now in operation. Your correspondent was curious to observe the details of this experimental innovation, and he takes the liberty of describing some of the features of the Brighton abattoir, the real monument of the persistent and praiseworthy efforts of the Health Board to abate a long-lived nuisance.

The situation of the establishment is excellent; it is immediately on the bank of the Charles river, and at a distance from any dwelling house. This latter advantage is, however, more an apparent than a substantial one, for, so far as any nuisance attending the slaughtering is concerned, the most fastidious landholder would not suffer in his sense of smell were he to reside under the very eaves of the new building. The feature which, at the outset and throughout, strikes the observer most is the pains taken to secure all the good results of cleanliness. The ventilation is excellent. The river supplies water in unlimited amount, and it is used lavishly. The sewerage is amply provided for, all waste of fluids passing at once through large pipes into the river below the buildings. The floors are all water-tight, those of wood being made like a ship’s side, wood-fastened and caulked; while the whole ground-surface covered by the structure is cemented, except at the apertures for the sewers. It is to be observed that all these provisions, which are really the application of conditions imposed, under the law, by the Board of Health, are in no single direction made at a sacrifice of convenience, but rather they enhance in every way the facility of slaughtering. It is agreeable, also, to note that the yards and pens for the keeping of the cattle are all they should be.

To give an idea of the practical operation of this institution, let me follow the experience of an ox from the pen to the market on the one hand and to the tallow-barrel and fertilizer on the other.

The animal, entering the slaughtering-room through a door from a stall immediately adjacent, is killed on a water-tight floor; the throat is cut, and the escaping blood finds its way readily through one of the five round apertures to the cellar below. The hide and horns, hoofs, viscera, head, tallow and other offal, as soon as they are removed from the carcass, are tossed down through the openings, each part having its own place according to its destination subsequently—the hide and hoofs through one, the tallow through another, the contents of the intestines through a third, and so on. The creature, having been thoroughly cleaned, is divided, the apparatus for hoisting being run by shafting from the engine, and easily controlled in each apart-
ment. The beef is then transferred to hooks which roll on an elevated tram-
way suspended from the roof; after cooling a little time, it is carried directly,
and without removal from the circuitous railway, into the refrigerator, an
ice-room being connected with each stall. This artificial cooling of the meat
is considered especially advantageous.

Going into the cellar below, we find that large sheet-iron barrows have re-
cieved the tallow, the offal and other refuse. This material is removed as
quickly as it accumulates, and there is no opportunity for decomposition.
The tallow goes to some rendering establishment, the hoofs belong to the
ghue-manufacturer, the hides are salted on the premises, the fluid waste es-
capes into the sewers, and all the rest—the viscera (first cleaned properly),
the heads and all the refuse—is transferred to the great rendering house,
where it undergoes processes which utilize what in ordinary slaughter-houses
is thrown away. All this offal is emptied into large tanks heated by steam,
and all the fat is melted out and drained off from the top of the boiling mass,
making tallow of a second quality. The residuum, or "scrap," is then re-
moved to the drying machinery, large cylinders, steam-heated, wherein the
material is dried and, at the same time, pulverized; when it is removed, it is
mostly in the form of a dark-brown coarse powder, of great value as a fer-
tilizer.

In this process of "rendering" there would seem to be ample opportunity
for the development of offensive stenches. This nuisance does not appear,
for the steam generated in the process is condensed in cold-water chambers,
and the gases are conveyed by pipes into the fires of the boiler room where they
are fully consumed. This disposition of the escaping steam and gas is found
much more satisfactory than that practised elsewhere, of conveying them
into an adjacent stream where they are condensed, but whence they also es-
cape.

The advantages of this extensive abattoir, as compared with the ordinary
slaughter-houses, are:—

1. Its cleanliness and freedom from nuisances. The person who knows he
is buying beef or mutton from the Brighton abattoir may know that it was
killed and dressed in a clean and decent fashion.
2. Its sewerage.
3. Its abundant water service.
4. Its mechanical appliances.
5. Its entire abhorrence of any thing like a slaughter-house pig-pen.
6. Its means of utilizing economically all that is commonly thrown away
   to decompose.

Do the butchers of Brighton readily accept the situation and see these ad-
vantages? The answer to this is in the fact that all the stalls have been
taken or are under negotiation; and the company is encouraged to construct
another large beef-slaughter house. The rendering-house is large enough to
supply the demand for some years to come. If the butchers are wise they
will greedily compete for places in the abattoir. At all events, the State
Board of Health may, by law, compel the butchers to transfer their industry
to this place, and may make very uncomfortable those who are incorrigible.

In a sanitary point of view, success is already assured; it is to be hoped
that the founders of the enterprise may find a satisfactory pecuniary profit
for their labors, in proportion to the measure in which they have promoted
the public welfare and the public health. Two innovations are still possible
to increase the usefulness of this excellent enterprise—one economic, the
other sanitary. These are the saving and utilization of the fresh blood for
the manufacture of albumen; and the appointment of an expert inspector of
meat and cattle, so that no consumer of meat from this abattoir may be in
doubt that he has wholesome steak and chop on his table.

This letter ought not to end without an acknowledgment of the courtesy
of Mr. John N. Merriam, the President of the abattoir company; it is most
agreeable to find a gentleman whose practical common sense can find a com-
patibility between business enterprise and a regard for the public welfare.

June 28, 1873.
Medical Miscellany.

Put where it will do the most good.—The Cholera in the Ohio Penitentiary.

According to the Philadelphia Medical Times, cases resembling cholera have appeared in that city, and in the west as far east as Cincinnati; also in Jersey city.

Men and Cattle.—At a recent meeting of the Lincoln Town Council, Alderman Brogden thought it strange that the officer who had the inspection of the health of the people should receive only £15 per annum, while the inspector of cattle received £77:3:6. But no one seemed to think it strange "in an agricultural country"; and the only explanation given was, that the inspection of cattle was paid by fees in an expensive way.—British Medical Journal.

Mme. Chateau, a sage femme of Vierzon, has been awarded a prize by the Ministre d'Agriculture for her devotion during the small pox epidemic of 1870. Her vaccinations amounted to 400, and the re-vaccinations to 3,750.

Transfusion of Blood in Leukæmia.—In our number of May 24th, we mentioned that Mr. Callender had performed transfusion of blood on a patient suffering from leucocythemia, and that he proposed to repeat it if successful. It has been repeated once since; several ounces of blood, taken from a stout-looking countryman, were injected. As in the first trial, the immediate results of the operation were encouraging, but it does not seem to have done much permanent good. The notes of this case will be looked for with interest in the St. Bartholomew's Hospital Reports.—Brit. Med. Jour.

At the annual commencement, Amherst College honored our fellow-citizen, Dr. Nathan Allen, by conferring on him the degree of LL.D., a compliment which we are sure is not an idle formality. We think this degree is seldom given to members of the medical profession, but generally to persons distinguished by law and divinity—to judges, professors, authors, or scientific men. If conferred on medical men, it is in recognition of special attainments, and its rarity to physicians makes the honor more marked and noticeable. The late Dr. Dana, who for years was a chemist in the employ of the Merri-mack Corporation, was the only resident of Lowell, previous to Dr. Allen, who ever received the distinction conferred by this degree. It affords us pleasure to record an act so complimentary to our well-known fellow-citizen. —Vox Populi of Lowell.

Action of the Board of Regents of the University of Michigan.—To answer numerous inquiries the following preamble and resolutions, passed by the Board of Regents at a late meeting, are published:

Whereas, The Legislature of the State of Michigan at its last session re-enacted the law of 1855, requiring the appointment of Homœopathic Professors in the Medical Department of the University; and, whereas, it has always been claimed by the Board of Regents that the law was an infringement upon the rights and prerogatives of the Board; and, whereas, the Supreme Court of the State has refused to grant a mandamus requiring the Regents to comply with the law, thereby substantially confirming their action, therefore,

Resolved, That we maintain the position heretofore taken, and decline to make the appointments required by the law.

Resolved further, That we do this in no spirit of factious opposition to the apparent will of the Legislature, but because we believe the true and best interests of the University demand it.

Resolved, That we re-affirm the former action of the Board expressing a willingness to take official charge of an independent school of Homœopathy, and connect it with the University, whenever the means shall be provided for the payment of its professors.
THE STUDENTS' JOURNAL AND HOSPITAL GAZETTE speaks as follows on the recent decision excluding female medical students from the University of Edinburgh.

"This decision is fatal to the hopes and aspirations of the ladies, as far as the University of Edinburgh is concerned; and whilst congratulating the male students of this seat of learning on the decision, we would ask the ladies not to feel discouraged, though Edinburgh will have none of them; the needy professors of Continental universities will welcome them joyfully, where they will be able to receive scientific education in mixed classes, sit in lecture theatres where men are exhibited in paris naturalibus to demonstrate the lectures, enjoy the charming society of their Russian sisters, and if so inclined may join secret political societies or become converts to communist theories of free love, without any fear that the British Government will follow the example of the Russian authorities, by taking steps to prevent them from corrupting the morals of the youth of this country on their return."

THE SHAH'S PHYSICIANS.—The physician to the Shah of Persia, who is in attendance upon him during his European travels, is a Frenchman who has held that post for fifteen years, and is well known as a physician of eminence and research. M. Tholozan is a "Médecin Principal d'Armée" of the French army, and a "Membre Correspondant de l'Académie de Médecine de Paris." His best known works are on the origin and development of cholera epidemics. He has used his opportunities for studying this important question in Persia, which is one of the cradles of cholera. M. Tholozan is one of the most esteemed corresponding members of the Epidemiological Society of London; and the Council of the Society have gracefully recognized his services to epidemiology by inviting him to a banquet on Monday next at Greenwich. Dr. Dickson, who also accompanies the Shah, has been for many years in practice at Teheran, and, after acquiring a degree, was appointed to the Embassy. He had the skill and fortune to cure the Shah of an attack of fever which seized him during the absence of his physician in Europe, and which resisted the endeavors of native physicians.—London Medical Record, June 25.

Errata.—Page 57, sixteenth line from bottom, the first "hypoglossal" should read glossopharyngeal. Page 58, twentieth line from bottom, between "its" and "origin," insert superficial. Page 60, third line from top, for "shower baths" read "shower bath." Page 66, twentieth line from the bottom, omit words "to be." For "Cym" read Cynos wherever the word occurs.

MORTALITY IN MASSACHUSETTS.—Deaths in eighteen Cities and Towns for the week ending July 12, 1873.

Boston, 123; Charlestown, 19; Worcester, 19; Lowell, 22; Milford, 4; Chelsea, 7; Cambridge, 17; Salem, 1; Lawrence, 21; Springfield, 6; Lynn, 11; Fitchburg, 4; Taunton, 3; Newburyport, 3; Somerville, 7; Fall River, 25; Haverhill, 9; Holyoke, 14. Total, 326.

Prevalent Diseases.—Cholera infantum, 56; consumption, 47; scarlet fever, 14; cerebro-spinal disease, 14.

Six deaths from smallpox occurred in Holyoke.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, July 19, 1873. Males, 105; females, 86.

Accident, 6; abscess, 1; apoplexy, 1; amnesia, 1; inflammation of the bowels, 3; bronchitis, 2; inflammation of the brain, 1; congestion of the brain, 1; disease of the brain, 8; cyanosis, 1; cancer, 1; cerebro-spinal meningitis, 1; cholera infantum, 4; consumption, 29; cholera morbus, 2; convulsions, 1; delirium, 1; diarrheea, 4; dropsy, 5; dropsy of the brain, 1; drowned, 1; dysentery, 1; dyspepsia, 2; ephelides, 1; scarlet fever, 14; typhoid fever, 3; gangrene, 1; gastritis, 3; disease of the heart, 3; intemperance, 1; disease of the kidneys, 2; disease of the liver, 4; leukocythemia, 1; congestion of the lungs, 3; inflammation of the lungs, 3; malformation, 1; marasmus, 10; old age, 2; pleurisy, 1; premature birth, 1; rheumatism, 2; storm-stroke, 1; serofilia, 3; smallpox, 1; disease of the spine, 2; suicide, 1; spina bifida, 1; tuberculous meningitis, 1; unknown, 3.

Under 5 years, 12; between 5 and 20 years, 11; between 20 and 40 years, 26; between 40 and 60 years, 15; over 60 years, 18. Born in the United States, 152; in Ireland, 27; other places, 12.
Influence of the Pneumogastric upon the Stomach.—As early as 1801, Bichat observed that irritation of the pneumogastrics produced contraction of the muscular coat of the stomach. This fact has been confirmed by Tiedemann, Gmelin, and more recently by Longet. The last named author has likewise observed that these contractions are very marked during stomach digestion, but are wanting when the stomach is empty. He has also found that irritation of the splanchnic nerves, while it produces movements in the intestines, does not affect the stomach. When the pneumogastrics are irritated, the contractions of the stomach are tardy, resembling the action of the sympathetic nerves upon unstriped muscular tissue. From these facts, Longet concludes that the motor nerve-filaments of the stomach, although contained in the pneumogastrics, are derived by anastomosis from the sympathetic system. We have already seen that the pneumogastrics receive, in the neck, a large supply of sympathetic fibres, from the cervical ganglia.

The effects of section of the pneumogastrics upon the stomach have been clearly demonstrated by Bernard. He found that upon division of these nerves, the contractions of the muscular walls instantly ceased, the mucous membrane lost its turgescence and became pale, the secretion of gastric juice was arrested and the sensibility of the organ was abolished. Schiff, however, has found that the movements of the stomach, although immensely diminished in activity, are not entirely abolished, for substances may still be very slowly passed to the pylorus. These movements he attributes to local irritation of the intramuscular terminal nervous filaments. It has been asserted by Tiedemann and Gmelin, that digestion, arrested by section of the pneumogastrics, may be, to a certain extent, reestablished by galvanization of the peripheral extremities of the divided nerves.

Section of the pneumogastrics effectually prevents the action of emetics and cathartics. This fact has been established, and its causes most thoroughly investigated, by Prof. Horatio C. Wood, Jr., of Philadelphia, in a most elaborate and conclusive series of experi-
ments.* These were fifty-one in number, upon dogs, cats and rabbits, most of them being vivisections; and the results may be concisely stated as follows:

1. After section of the pneumogastrics, the largest doses of such emetics and cathartics as arsenic, tartar emetic, veratria, croton oil, gamboge and calomel, with rare exceptions, failed to produce vomiting or purging.

2. In these cases, there was no secretion of gastric or intestinal mucus, whose production in large quantities is the usual result of these drugs, and is essential to their action.

3. These results are not due to non-absorption of the medicines, for these and other poisons produce death quite as speedily as when the nerves are not divided.

4. The absence of purging cannot be explained by failure of muscular action, for the peristaltic action of the bowels continues, after section of the pneumogastrics.

5. One probable explanation of this phenomenon lies in the accumulation of carbonic acid in the blood; for animals, hypodermically injected with veratria, but with nerves intact, immersed in an atmosphere of carbonic acid, died without vomiting or purging. This cannot be the sole cause, however, for enough carbonization of the blood is required to produce insensibility, while, after section of the nerves, vomiting and purging are prevented, long before this stage is reached.

6. A second cause is probably the interference with the circulation of the lungs backing up the blood in the pulmonary artery, consequently in the right heart, and finally in the portal circulation, arresting the action of the mucous glands.

7. A third cause is perhaps shock.

8. The opposite results obtained by Brodie and Reid may be explained by the occasional failure of section of those nerves to affect the pulmonary circulation.

Dr. Wood, therefore, attributes the stoppage of vomiting and purging by section of the pneumogastrics entirely to arrest of the secretory function of that nerve, but seems to leave out of the question the reflex function of the medulla oblongata, by which gastric irritation is transmitted from the pneumogastric to the phrenic nerve, and which doubtless contributes to emesis, in those cases where the emetic is given by the stomach. In these cases, the irritation of the emetic transmitted to the medulla by the centripetal fibres of the vagus, excites simultaneously the secretory filaments of that nerve, filling the stomach with mucus, and the excito-motor fibres of the phrenic, causing spasmodic contraction of the diaphragm. In cases of cerebral vomiting, the emetic influence seems to be transmitted at first, entirely through the phrenic, hypersecretion not commencing

until the stomach is emptied of its alimentary contents; and, in the case of some of the most prompt emetics, such as sulphate of zinc and turpeth mineral, the reflex action upon the phrenic doubtless precedes that upon the secretory filaments of the pneumogastric.

In this connection, it will be interesting to consider the relation of the pneumogastric to the etiology of migraine or sick-headache, especially since the subject has been so clearly and beautifully brought to the notice of the profession by Dr. Anstie in his work on neuralgia, and also in recent numbers of the Practitioner.* Concerning the nature of this distressing and obstinate affection, the most diverse opinions have been and are still held. Of recent writers, we find Du Bois Reymond maintaining that it is due to a tetanic condition of the vaso-motor nerves of the affected side of the head, the pain being analogous to that felt during tetanic contraction of voluntary muscles, or the unstriped muscles of the uterus, intestines, &c. Moellendorf, on the other hand, thinks that hemicrania is based on the appearance of a paralytic condition of the vaso-motor nerves controlling the carotid artery of one side, which causes relaxation and distention of the arteries of the brain. Dr. Anstie differs from both of these writers in calling migraine a trigeminal neuralgia, a view which has, of late years, been pretty generally held by the profession in England. There is one essential point, however, in which Dr. Anstie takes an independent position, and that is, in locating the primary lesion in the medulla oblongata, instead of the chyl-o-poietic viscera, as is more commonly believed. Migrainous pain, he contends, means an atrophic molecular irritation in the trigeminus root, and migrainous vomiting means a similar process in the vagus root. That is to say, an irritation in the floor of the fourth ventricle, being propagated in one direction by the trigeminus, gives rise to pain, and in another direction by the vagus, upsets the stomach. He admits the frequency of simple dyspeptic headaches, with vomiting and a foul tongue; but a true migraine he describes as a trigeminal neuralgia, complicated with vomiting, though the tongue is clean, occurring at regular intervals, induced by over-fatigue, and not by over-eating, beginning in early life in persons whose family history shows nervous disease, and passing off in middle life, or merging into some other form of nervous affection, as epilepsy, asthma, angina pectoris, or persistent facial neuralgia. In accordance with this view, his treatment is strongly tonic; fasting is discountenanced, and the patients are put upon an abundant diet, with cod-liver oil. Drastic cathartics are considered pernicious, as weakening the digestive power, and reducing the general strength. The indications during an attack, he maintains, are entirely for the relief of pain and production of sleep. For this purpose, he relies chiefly upon caffeine, given by the mouth if it can be borne, otherwise hypodermi-

cally. If this fails, he resorts to the hypodermic use of morphia. Dr. Allbutt* replies to Dr. Anstie, contending that gastro-hepatic disturbance plays the most important part in the production of this affection; but the difference between these two gentlemen seems to be chiefly one of classification, for the cases which Allbutt considers typical are not admitted by Anstie to be true migraine. In this country, I am sure but a small minority of the sick-headaches can be classed under Anstie's definition of migraine, for the most frequent cases appear to be such as Chambers† so graphically describes, and which are dependent upon the centripetal rather than the centrifugal function of the pneumogastric.

The researches of Dr. Waller, of Geneva,‡ upon the effects of compression of the cervical pneumogastrics, for the relief of various nervous affections, have been reserved for the close of this paper, as they bear upon all three of its divisions. Although the cases reported are few, they possess a strong interest, both in reference to the importance of the results and the physiological mechanism whereby these results are obtained. He reports five cases illustrating the effects of pressure upon persons in health, and four cases in which it was applied as a therapeutic agent. The pressure is applied with the thumb, over the carotid artery on one side, usually a little below the angle of the jaw, the thumb being moved until a sensitive spot is found, which he considers indicative of the presence of the vagus. It will be remembered that the nerve lies in the posterior groove between the carotid artery and the internal jugular vein. The symptoms produced in his own case are thus described: “A moderate pressure soon occasions a deep-seated sensation, of a peculiar benumbing character, in the head, which scarcely amounts to pain.” Then follows “a sense of languor and of fainting, as if ‘going off,’ which is so manifest that, if the head and body be not supported, and if pressure on the nerve be continued, complete syncope ensues. Simultaneously, other symptoms of a respiratory, cardiac and gastric nature make their appearance. The respiration, at first arrested for a few moments, becomes heaving and retarded; the heart's action, depressed in force, is disturbed and irregular, as may be felt by the pulsation of the carotid, under the finger. The gastric symptoms are marked uneasiness over the stomach, sometimes amounting to nausea and even vomiting.”

In the other cases, the effects were similar, but the heart's action was reduced in frequency as well as in force. In two of them, the cheek and ear of the side upon which pressure was made were observed to be paler and of lower temperature than those of the opposite side; and in one, there was slight protrusion of the eyelid.

These symptoms Waller attributes to an irritation by pressure of

* Clifford Allbutt on Migraine. Practitioner, January, 1873.
† On the Indigestions. 1870.
‡ Augustus Waller. On the Effects of Compression of the Vagus Nerve, in the Cure or Relief of Various Nervous Affections. Practitioner, April, 1870.
the trunk of the pneumogastric and the cervical cord of the sympathetic, which lies beneath it, so that it is impossible to make firm pressure upon the one without also pressing upon the other. By comparing these symptoms with the effects of galvanization of these nerves, we find them to be identical. The retardation of the heart's pulsations, and the slow, heaving respiration result from irritation of the inhibitory nerve-fibres of those organs in the vagus; the diminution of arterial pressure is due to irritation of the depressor nerve, and the nausea may arise from irritation of gastric nerve-fibres, or may be wholly or in part dependent upon the faintness. The pallor and reduction of temperature of the cheek and ear, and protrusion of the eye-ball, are symptoms referable to irritation of the sympathetic, being among the characteristic symptoms of Basedow's disease, an affection whose primary lesion is in the cervical sympathetic ganglia, or the adjacent cilio-spinal centre of the spinal cord. The peculiar benumbing sensation in the head is probably caused by cerebral anæmia, from irritation of vaso-motor nerves. With regard to the faintness and nausea, it is difficult to say which nerve contributes the most to them, for they may be induced by galvanization of either the vagus or sympathetic. Waller lays the most stress upon the irritation of the vagus; but, as it is impossible to press upon this, without also pressing the sympathetic cord, the two sets of symptoms are necessarily simultaneous and liable to confusion.

Previous writers, who had made use of pressure upon the neck, supposed its effects to be due to obstruction of the arterial or venous circulation, and Dr. Waller himself shared this belief until 1861, when he became convinced that these phenomena are of purely nervous origin. Dr. Parry, of Bath, was the first to apply practically, in the early part of this century, what he termed compression of the carotids, for inducing sleep, and for the immediate relief of attacks of hysteria and epilepsy; but long before his day, Aristotle had written "that if the veins of the neck become compressed exteriorly, one sees a man shut his eyes and fall down senseless, as if he were strangled, although he is not so." But Waller shows that compression of the carotid arteries will not induce the symptoms described, adducing the fact that, in animals, both carotids may be tied, without producing any disturbance of the heart's action, or of innervation. In man, too, the ligation of one of the carotids gives rise, in the great majority of cases, to no immediate symptoms of a marked character, the secondary symptoms which occasionally supervene, such as convulsions, coma, collapse, &c., being of a totally different nature, and generally attributable to lesions of the brain. In those rare cases in which impaired eyesight and syncope have immediately followed the ligation of the artery, it is likely that the vagus or sympathetic nerves, or both, have been included in the ligature; for, when such is the case in animals, the symptoms are found to be similar. Ligation of the internal jugular vein has also
been frequently performed, without any peculiar symptoms resulting, although a case is within my knowledge where ligature of one of these veins, for hemorrhage, was followed by coma of three days' duration. Even in this case, it is not unlikely that the nerves were included in the ligature. Simultaneous compression of both internal jugulars would undoubtedly produce some cerebral congestion, whose symptoms would, however, differ essentially from those described by Waller; but it is probable, from the manner in which the pressure is made by him, that the circulation in these veins is but slightly, if at all, impeded. Taking these circumstances in connection with the known effects of irritation of the vagus and sympathetic nerves, we may safely conclude that Waller's views are sound, and a valuable addition to medical science.

The cases which he reports, in which a therapeutic application was made of compression of the pneumogastric, are not sufficiently numerous for generalization, but are very striking and suggestive. In one of them, violent nervous disturbance of the heart, with hysterical symptoms, came on in a lady suffering from an attack of acute rheumatism. Compression was made, first of one vagus, and afterwards of both. In a few minutes, the agitation had subsided, the heart's action became quieter and more regular, and finally, all the nervous symptoms subsided. A few minutes afterward, she sank into a steady sleep and, on awakening, was perfectly quiet, and the cardiac symptoms never re-appeared.

Another case was that of a lady, who, in consequence of a fall on the previous day, had severe neuralgia of the head and back, hyperaesthesia of the ulnar and median nerves, much mental excitement, a small pulse, at eighty, and frequent fits of obstinate vomiting. Pressure was applied to the left vagus. The result was perfect quietude, with laborious breathing, for about ten minutes; pulse weak and irregular. After removing the pressure, the pulse fell to seventy, and became full and regular, the patient lying quiet, and apparently unconscious, for upwards of ten minutes more. When she came to her senses, the vomiting had ceased, and did not return. The pain and excitability had left. The fulness of the pulse remained for some hours.

A third case was that of a lady with an irritable stomach, the sequela of gastritis, who had frequent attacks of spasmodic vomiting. One of these attacks was quieted by Dr. Waller, by pressure on one of the vagi, and subsequently the patient acquired the habit of making the pressure herself, when nausea came on, and always with the effect of quieting the stomach and preventing emesis.

The fourth and last case was that of a young lady who had suffered for several months from a severe hemiplegia, recurring periodically, every day. In this case, Dr. Waller resolved to make use of pneumogastric compression as a "perturbating" agent, as he expresses it, and, to that end, while the patient was in the sitting
posture, made strong compression of both vagi. Syncope occurred immediately, and she remained quiet and unconscious for two hours, although the respiration and heart's action were regular. The result was, that she had had, in the two years intervening between this treatment and the report of the case, not the slightest return of the hemicrania.

We ought not to leave Waller's pressure method without referring to Rothroch's cases of the therapeutic application of ice to the neck, in the region of the pneumogastric.* This was done in cases of hysterical delirium, one being idiopathic, and the other following the use of an anesthetic; and also in a case of suspended respiration, in etherization. In all the cases, the application was immediately followed by a deep, heaving respiration, and restoration to consciousness, with muscular relaxation. There was no faintness, however, as in the case when pressure is made; and no mention is made of any retarding of the heart's action. It is difficult to tell in what way the ice acted, in these cases. Dr. Rothroch supposes that it, in some way, supplied the besoin de respirer, and that shock, also, was a not unimportant factor. Shock, however, was not the sole agency, for when the ice was applied to the head, no effect was produced. This mode of treatment is so easily applied, that it is to be hoped it may be given a general trial.

In closing this paper, it need only be said, that the fear of adding unduly to its length has necessitated the omission of much that properly belongs to the subject, such as the relations of the pneumogastric to the larynx and to the liver, and the various forms of pneumogastric neuralgia. The object of the essay will have been accomplished, if it has succeeded in reviewing, with clearness and accuracy, the most recent investigations concerning some of the more obscure functions of the vagus; and, while showing what brilliant results have already been accomplished, indicating the yet unopened mines of wealth that remain for the reward of future explorations.

**THE EDINBURGH MEDICAL LADIES IN THE CRIMINAL COURT.**—The Edinburgh lawyers have been fluttered somewhat by the steady pursuit of knowledge by the Edinburgh medical ladies in the criminal court of that city. It seems they feel a deep interest in the proceedings of the Court, and have been a welcome audience until the other day, when it was thought necessary to send the macer to them with the information that evidence was about to be given not fit for ladies' ears, and they had better therefore retire. This, however, they declined to do. A man was then sworn, and, on being asked to detail the injuries inflicted on him (it being a case of filthy assault), appealed to the Court that he could not explain while those ladies were present. But the Court was helpless to expel them and they declined to go. With many blushes, and in faltering accents, the witness then told his sorrows, but we suppress the details.—*Medical Times and Gazette, May 17, 1873.*

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Progress in Medicine.

REPORT ON MENTAL DISEASES.

By T. W. Fisher, M.D.

Since the scientific work of Griesinger, the philosophical one of Maudsley, and the practical one of Blandford, no general treatise on insanity has appeared. Many books, lectures, monographs and papers of great variety and interest in special departments, have, however, shown an increasing attention to the study of mind in its relations to the brain in health and disease. In the half dozen pages allowed this report, we can do no more than mention a few of them, leaving the reader to explore for himself the paths pointed out. It is impossible to summarize progress on such a subject satisfactorily.

MENTAL SCIENCE.


Purely metaphysical speculation is at a discount, and is carefully avoided in the work of Tuke. He gives a long series of instances in which the mind affects the body—properly classified under its three grand divisions—assigning to the intellect 154, to the emotions 243, and to the will 33. These range from cases of disordered sensation, to paralysis and death. The preponderating influence of the emotions corresponds with the well-known primary character and frequency of moral and emotional forms of mental disorder.

Dr. Maudsley treats the same general subject in a less objective manner. He says, "we know not what mind is, but we are bound to investigate, in a scientific spirit, the laws of its functions." "Volition, we know, but the will, apart from particular acts of volition, we do not know." "Impressions made there (on the nerve cells of the hemispheres) are the physiological conditions of ideas; the feeling of the ideas is emotion, for I hold emotion to mean the special sensibility of the vesicular neurite to ideas; the registration of them is memory; and the reaction to them is volition. Attention is the maintenance of the tension of an idea; reflection, the successive transference of energy from one to another."

Spencer's elaborate application of the principles of positivism to psychology, is too learned, and too logical, to be neglected by any reader, however prejudiced against his system of philosophy. He at-
tempts to show that in an ultimate analysis of the relations of mind and body, a nervous impulse may become identical with a unit of consciousness, or if not, that they at least look like two sides of the same thing.

Sir Benj. Brodie, whose book was recently noticed in this Journal, would consider such views as rank materialism. He says, "when the materialist argues that we know nothing of mind except as being dependent on material organization, I turn his argument against himself, and say that the existence of my own mind is the only thing of which I have any absolute and positive knowledge." Also, "the properties of mind are so wholly different from those of matter, the two are so completely asunder, that they do not admit the most distant comparison."

Dr. Radcliffe, in his first lecture on Mind, vs. Spirit, thinks the phenomena of memory show that impressions are made on some less perishable and shifting material than the cerebral cells; that the mind goes out to find the records of memory everywhere. He opposes the positivists and argues that mind keeps the brain together, and the body alive.

Dr. Carpenter's first lecture shows how great a portion of our life consists in unconscious cerebration, which may be counted unconscious mental action by some—yet mind, without consciousness, seems to be a contradiction in terms. A new book by R. R. Noel, on "The Physical Basis of Mental Life" (Longmans, 8vo. pp. 74), has just appeared in London, but I can learn nothing of it, except that it is a popular essay. No doubt we advance slowly in the construction of a rational mental science, but the fundamental question still eludes the keenest research. We may hope, however, for further progress in this direction.

ANATOMY AND PHYSIOLOGY OF THE BRAIN IN RELATION TO MENTAL DISEASE.

Notice of some of the results of very recent experiments in Cerebral Physiology. By David Ferrier, M.D.—British Medical Journal, April 26, 1873.


Some account of the opinions of Griesinger, Van der Kolk, Carpenter, Jaccoud, Schiff, Clark, Jackson, Broca and others, will be found in this Journal, vol. vi. pp. 129, 145, 161 and 177. Flint, in his chapter on the cerebrum, gives a résumé of the accepted conclusions of physiologists in regard to the functions of the different cerebral centres. He bases his account of the anatomy of their fibrous connections on the researches of Luys (Paris, 1865), at the same time expressing some doubt of his entire reliability in detail. The existence of a complicated system of transverse fibres, uniting convolutions and parts of convolutions, and of converging fibres between the cortex and basic ganglia is clearly demonstrated. Dr. Broadbent describes these fibres with minuteness. He finds that the radiating central fibres, as he calls them, are not distributed to all the convolutions, but that considerable tracts of the cortex are isolated, their cells only communicating with those of neighboring convolutions, by transverse fibres, arranged conveniently for transference of energy in a lateral direction. This structure, with the intricate anastomosing of the cell fibres, provides an apparatus for the organization of associated ideas, impressions and movements.

It is agreed that the grey matter of the hemispheres is the seat of mental operations, but great difficulty has been experienced in locating any special class of ideas. This may have arisen from too great dependence on destructive lesions and destructive experiments, which give negative rather than positive results. The experiments of Dr. Ferrier, of the West Riding Asylum, mentioned further on, are likely to throw great light on this question of localization. Brown-Séquard has recently insisted on this difficulty of inferring the location of cerebral functions from the place of lesion. Reflex and inhibitory influences, from distant parts of the brain, give no clue, in the absence of a precise knowledge of nervous connections, to the special convolution affected.

Reflex insanity, from coarse central lesions, is not the most frequent form. Anemia, hyperaemia, neurasthenia, blood changes, and even organic changes of a microscopic nature, may directly affect the cortex and give rise to mental disturbance. The changes of cerebral texture seen in chronic insanity are often secondary, but they may indicate the seat of the original disorder. In general paralysis, for instance, they confirm a belief in the location of the mental functions in the cortex. Dr. Obersteiner divides paralytic imbecility into two stages—1. Stage of Exudation. Serous exudation and lymph corpuscles extravasated from the vessels into the perivascular spaces and cerebral substance. Commencement of paresic phenomena, confined to the brain and shown chiefly in mental weakness. 2. Stage of Formation of Connective Tissue. The lymph corpuscles organize into connective tissue; the activity of the nervous elements becomes more and more interfered with; atrophy, complete mental decay, spread of paralytic phenomena, marasmus.

Dr. Weissbach finds in the brains of 15 insane persons the supra-orbital convolutions little accentuated with a tendency to blend. Dr. Meynert finds, in General Paralysis, the frontal convolutions most at-
rophied. This every one must have noticed who has made many autopsies in this disease. Dr. Brown says, "brain wasting" is common to general paralysis and to senile decay. He thinks it is seldom general and uniform, but thinks it begins, and is invariably most advanced in the marginal, the ascending frontal and ascending parietal gyri, from which it spreads to the superior frontal gyrus, and the postero-parietal and supra-marginal lobules. The gyri of the occipital lobes rarely participate. The wasting originates in the cortex and spreads to the ganglia at the base, except in those rare cases of propagation from the spinal cord, which Dr. Foville describes (Annales Medico-Psych., Nov. 1872).

As the sequence of mental phenomena is quite regular and well defined in general paralysis, we may infer that the anterior convolutions are the seat of memory, of reason, and of the self-feeling, so sure to be exalted in this disease. The early existence of slight aphasia and agraphia in many cases, goes to confirm a belief in the frontal gyri, as the seat of memory of words.

The results of some very recent experimental researches in cerebral physiology, by David Ferrier, M.D., may be found in the British Medical Journal, April 26, 1873. In a notice of experiments on guinea-pigs, rabbits, cats and dogs, after the plan of Fritsch and Hitzig, he concludes:—1st. The anterior portions of the cerebral hemispheres are the chief centres of voluntary motion, and the active outward manifestation of intelligence. 2d. The individual convolutions are distinct centres for different movements. 3d. The action of the hemispheres is generally crossed. 4th. The different epilepsies are, as Dr. J. H. Jackson supposes, "discharging lesions" of these different centres. 5th. Chorea is of the same nature. 6th. The corpora striata are centres chiefly for the flexor muscles of the opposite sides; when irritated, pleurosthotonos occurs. 7th. The optic thalami, fornix, hippocampi majores and convolutions adjoining have no motor signification. 8th. The corpora quadrigemina are concerned in vision and movements of the iris, and are centres for the extensor muscles of the head, trunk and legs; when irritated, opisthotonos occurs. 9th and 10th. The cerebellum regulates the movements of the eye-balls, and maintains the equilibrium of the body. 11th. Nystagmus is a cerebellar epilepsy.

Dr. J. H. Jackson speaks in the most hopeful terms of Dr. Ferrier's novel method of experimenting (British Medical Journal, May 10, 1873). He says the plan of discharging the separate convolutions by the direct application of electricity, gives results unattainable by the destruction of the same parts. He accounts for the absence of paralysis in the latter case, and the existence of convulsions in the former, by the following ingenious speculation. He says the study of hemiplegia shows that each part of the corpus striatum represents movements of the whole of the parts which that organ governs. The convolutions are the corpus striatum "raised to a higher power." Each part, &c., represents the whole of the movements, which have been represented in the corpus striatum; so then, if any part of the cortex in this region be destroyed, there is no loss of movement; but if any one part be strongly discharged, many movements are developed. The convolutions, then, are seen to be centres of the most complicated associated movements and impressions, many times organized under
various combinations. Monkeys are soon to be experimented on to determine the functions of homologous convolutions in man.

SPECIAL FORMS OF MENTAL DISEASE.


Reynolds' System of Medicine, Vol. II. See Articles on Insanity, Hypochondriasis, Hystera, Ecstasy, Catelepsy, Somnambulism, Alcoholism, Chorea and Epilepsy.


De l'Alcoholisme au point de vue de l'Alienation Mentale. Par M. le Dr. H. Dagonet. *Annales Medico-Psych.* Mars, 1873.


Dr. Skae's attempt at pathological Classification (*Edin. Med. Jour.* Nov. 1870) was a decided advance on the old divisions of Esquirol into Mania, Melancholia, Dementia, &c. It is so useful, I am tempted to give it.


Insanity with Epilepsy. Phthisical Mania.

Insanity of Masturbation. Metastatic Mania.

Insanity of Pubescence. Traumatic Mania.

Satyrization. Syphilitic Mania.

Nymphomania. Delirium Tremens.

Hysterical Mania. Dipsomania.

Amenorrheal Mania. Mania of Alcoholism.

Post-Communial Mania. Post-Febrile Mania.

Mania of Pregnancy. Mania of Oxaluria, &c.

Puerperal Mania. General Paralysis.

Mania of Lactation. Epidemic Mania.

Climacteric Mania. Idiopathic Mania.

Sthenic and Asthenic Mania.

Foville's more recent attempt is less practical, if more scientific.
PROGRESS IN THE MEDICAL SCIENCES.

He makes four classes:—First, insanity without, and, second, insanity with special anatomical lesions. General paralysis is the only form he is able to place, with confidence, in the second class. Third, acquired cerebral and intellectual infirmities (atrophies and dementias). Fourth, congenital infirmities (idiocy, imbecility and cretinism). The first class would necessarily include most cases of recent mental disorder arising from reflex excitation or inhibition; from cerebral exhaustion and from blood changes of quantity and quality, such as hyperæmia, anæmia, spanæmia and the various toxic conditions.

Uterine specialists and alienists are at variance in regard to the pathology of certain mental symptoms often classed as hysteria. The former are undoubtedly furthest from the truth. Briquet, according to the editor of the Review above mentioned, considers hysteria a "perversion of the vital acts which manifest the affections and passions"; in other words, it is a form of moral insanity. Dr. Hewitt, in every sense a gynaecologist, says:—"Hysteria is not necessarily associated with disease or derangement of the generative organs of either sex." Dr. Reynolds says:—"The hysterical state is essentially one of mental perturbation." . . . "The uterine disorders coincident with it are more commonly the effect than the cause." The writer in the Review says hysteria is a failure of nerve power from various causes, mental and physical, occurring in women, not because they have wombs, but from their naturally more unstable nervous system. Visceral lesions, he thinks, are often secondary.

Dr. Radcliffe's second lecture, on the signs of incipient insanity, is in point. He says want of self-control, or will-power, and disturbance of the affective nature are fundamental, intellectual disturbance being secondary. This is true of hysteria, which he calls neuriasis. Under physical symptoms, he enumerates: causeless laughing and crying, globus, besoin d'uriner, flatulence, tender spots at pit of stomach, under left nipple and over dorsal spine (the trépided hysterique of Briquet), spasms, periodicity, &c. &c. Under mental symptoms: self-sensitivity, feebleness of will, fancifulness, unbalanced spirits, feeble sense of moral obligation, &c. &c. He says the names hysteria and hypochondria are misnomers. The name should include the mental as well as the physical symptoms, since the latter are the effect of the former.

Dr. Radcliffe's third lecture treats, in a very interesting way, of cerebral and spinal exhaustion, common sources of nervous and mental disturbance, but generally complicated with blood changes whose special influence it is hard to distinguish. Of the toxic conditions, alcoholism is the most frequent cause of insanity. Dr. Skae mentions three forms, and Dr. Eastwood seven arising from this cause. The scrofulous, cancerous, syphilitic, gouty and rheumatic diatheses each induce mental disease with special peculiarities worthy of study. Uraemia and kindred states are common causes. Malaria, lead poisoning, heat-stroke, each gives a peculiar impress to mental disorder. In our climate, the effect of the weather, on rheumatic subjects particularly, has not received due attention. Mr. Crallan has arranged the results of four years of observation in a lunatic asylum in a diagram, placing admissions, deaths, accession of epileptic fits, relapses of mania, melancholia, &c., so as to be easily compared with wave lines of temperature, solar radiation, amount of ozone, rain, wind, &c. Two hundred and seven of two hundred and twelve fits were preceded or accompa-
ased by marked change of pressure or radiation. He thinks it is the change of weather, at the changes of the moon, which affect epileptics. Alterations of the electric state of the atmosphere have been neglected. Every hospital or weather station should have a captive balloon, with silk cord and electrometer.

Heredity is the predisposing cause in most cases of insanity. It may be so powerful as to give rise to insanity without apparent exciting causes. M. Morel makes hereditary insanity a special variety, and this idea is supported in the essay of Dr. Doutreleube. Bad conformation of the head is a prominent feature, especially a bi-lateral flattening. (See A Ready Method of Cranial Comparison, this Journal, Feb. 16, 1871.)

TREATMENT.


Transactions of the American Association of Medical Superintendents of the Insane. See Am. Jour. of Ins., vols. xxv.—xxx.

Asiles speciaux pour les Ivrognes. Par Foville. Annales Medico-
Psych., July, 1872.


The Medical Treatment of Insanity. T. S. Clouston, M.D. Jour. of Ment. Sci., April, 1870.


Letters from Geo. Fielding Blandford, M.D., in Psychological Jour., January, April, July and October, 1872.


Ophthalmoscopic Examination of sixty Patients in the State Asylum, Utica, N. Y. H. D. Noyes, M.D. 1872.
The Ophthalmoscope in Mental and Cerebral Diseases. Mr. Aldridge. Also, The Sphygmograph in Lunatic Asylum Practice. Mr. Thompson. West Riding Reports. 1872.

Passing by all questions relating to home, cottage or hospital treatment, for the sake of abbreviation; also, the subjects of mechanical restraint and separate asylums for habitual drunkards and criminal insane, we come at once to the strictly medical treatment of insanity. The above subjects will be found fully discussed in the first two documents mentioned. That important part of treatment which consists in the personal moral influence of the physician over his patient, hardly admits of consideration in this place.

Dr. Blandford believes thoroughly in the efficacy of medical treatment in insanity, and is supported by the great majority of practical alienists. This belief has a sure foundation in the fact of the physical basis of all mental disorder. Dr. Blandford treats very satisfactorily of diet and bathing. He advocates forcible feeding for patients who refuse their food because of supposed dyspepsia, with a foul tongue, fetid breath and loaded bowels. Dyspepsia is almost always the result, and not the cause of nervous depression. The fullest diet, with stimulants, often effects a speedy cure. (See page 206.) That a full diet is required in most cases, might be inferred from the impoverished state of the blood, as shown by examination. (See Lancet, May 3, 1873, on the Histology of the Blood in 143 Insane.) The proper method of forced alimentation is discussed at length (pp. 215 to 224). Dr. Moxey, in Lancet, May 31, 1873, defends his "Nasal Method of Enforced Alimentation." It is a pithy such methods cannot be availed of for the thousands of patients, in ordinary practice, who slowly and persistently starve themselves. For a very able analysis of the most common form of voluntary starvation, see the paper of Dr. Leségue on Hysterical Anorexia (Archives Générales, April, 1873). It is beyond question that patients are constantly allowed to die of simple starvation through a slipshod expectancy in treatment. In hospitals, the much-dreaded bugbears of mechanical restraint and enforced feeding save more lives than any other single agencies.

Of bathing, Dr. Blandford speaks in qualified praise. He thinks there is risk of too great depression from hot baths of long duration, as used by the French. He prefers, in mania, a bath of 92°, and suggests allowing it to cool while the patient is in it, thus avoiding shock. Dr. Lockhart Robertson strongly advocates the wet sheet in recent mania, frequently applied and long continued. Dr. Blandford intimates that a large part of the benefit derived is from the very efficient mechanical restraint it affords. Dr. Wilkins comes to the conclusion, in his report, that baths are overestimated, and perhaps abused, in France, and too much neglected in this country. Dr. Skae, of Edinburgh, and Dr. Blanche, of Paris, have, after years of experiment, discontinued the warm bath in acute mania, on account of occasional fatal results.

Tonics, stimulants and laxatives are required in most cases of insanity. The underlying diathesis should be medically treated also. On the use of sedatives, some difference of opinion exists, though most alienists rely on them largely, and with good results. No doubt, they are open to great abuse, as Dr. Maudsley affirms, especially when
the chemical restraint of drugs is substituted for a rational use of mechanical restraint, as is the case in some English hospitals, under the pressure of popular feeling.

Opium must still retain the first place in the treatment of melancholia of the subacute form. It has a directly curative effect which chloral has not. Dr. Wolff bases its use on sphygmographic indications, which show that a full dose, after a short period of irritation, acts by paralyzing the vaso-motor nerves. Its use is followed by general relaxation, cessation of agitation, diminished painful nervous sensations, and by psychical and corporeal calm. The dose should be carefully individualized, and should be small when the pulse is already slow and venous system relaxed, as in old age, paralysis, fatty heart, &c.

Chloral is universally employed as the most valuable known hypnotic. It is better suited to cases where excitement exists, though it produces sleep in cases of depression. It may be given to advantage by the rectum. Dr. Madden prefers it to opium in puerperal mania, in doses of from ten to thirty grains. (Brit. and For. Med.-Chir. Rev., Oct., 1871.) Mr. Aldridge examined three patients under the influence of chloral, and found, first, increased vascularity of the retina, followed by anaemia, the condition characteristic of healthy sleep, thus confirming Dr. Hammond's observations (On the Physiological Effects and Therapeutical Uses of Chloral, N. Y. Med.-Journal, Feb., 1870). Though the treatment of mania is assisted by chloral, the disease seems to run a definite though modified course in spite of it. Hence the objection to pushing the remedy to extremes, with a view to cut short the disease, as is often attempted in ordinary practice. I have good reason to know the frequency and danger of this error. Dr. Maudsley, in his address before the Royal College of Physicians, August, 1871, referring to the use and abuse of sedatives, says he is opposed to giving chloral every three or four hours, and reserves its use for bedtime.

Of the extreme value of the bromides, especially in epilepsy, perhaps enough has been said in the medical journals of late. For their physiological effects, the reader is referred to the papers mentioned and to Drs. Clarke and Amory's recent monograph.

Hyoscyamus is a valuable and reliable sedative; belladonna is less so, and cannabis indica least of all, though Dr. Clouston strongly recommends the latter in combination with bromide of potassium.

Conium has recently been largely experimented with, and its effects on the temperature and pulse carefully noted. Dr. J. Crichton Brown finds it of great value in mania from its effect on the motor centres. He has observed that the corpora striata participate in the usual vinous staining in patches seen in death from exhaustive mania. He thinks it soothes the irritated and exhausted centres of motor activity, without affecting the mental excitement directly. He finds the average duration of treatment, in twelve cases of recovery from mania treated by conium, to be one hundred and two days; in twelve cases treated by other sedatives, one hundred and fifty days. Dr. Kitchen demonstrates, by thermometer and sphygmograph, its effect in reducing the temperature and pulse, and gives cases showing its effect on muscular activity.

Ergot was found useful by Dr. Brown in (1) recurrent mania, (2) chronic mania with lucid intervals, (3) epileptic mania. Dr. Kitchen
used it to advantage in headaches, both from plethora and anaemia of cerebral vessels, in mania, epilepsy and delirium tremens. He gave it in half dram doses of the fluid extract, or three to six grains of ergotine before meals. He found it did not affect the temperature, but increased the frequency and tension of the pulse. It was shown by Mr. Aldridge to contract the minute arteries of the retina when taken continuously for several days.

*Nitrite of Amyl* was found to increase the size of the small arteries when at the height of its action.

The use of the ophthalmoscope becomes more and more evident as observations accumulate. The work of Dr. Allbutt, noticed by Dr. Jeffries in his late Report on the Progress of Ophthalmology, will serve as a text-book for the general practitioner, to be supplemented by the more recent investigations of Dr. Noyes, Mr. Aldridge and other observers. No space is left to speak of electricity in its application to mental disease. All the text-books on electro-therapeutics, except that of Drs. Rockwell and Beard, give a chapter to this subject. Electricity is certainly valuable in treating such complications as neuralgia and paralysis, and as a general tonic. Its direct application to the head, with a view to definite effects upon the brain, must be considered as rather empirical at present.

**JURISPRUDENCE OF INSANITY.**


For some reason, Dr. Ray, one of the most conscientious and conservative of writers, has the reputation, in certain legal circles, of being the leading advocate, if not the author, of what is called the "modern doctrine of insanity." By this is meant the doctrine of moral, emotional or affective insanity. Dr. Ray's division of mania into intellectual and moral, general or partial, is no innovation or novelty. Moral insanity was described by Pinel, early in this century, and has been recognized by every alienist of repute from that day to this. The only difference of opinion has been the theoretical one, whether, in the frequent cases where no intellectual derangement is observed, it does not really exist. This, some claim, must be the case, from the supposed unity of mind, it being impossible, as is maintained, for one of its three grand divisions of intellect, emotion and
will, to be affected separately. Dr. Ray's division is practical and not theoretical. It should always be remembered that the term *moral* is the French *morale*, and includes the character and conduct as influenced by the passions and emotions, as well as by the sense of right and wrong. Simple melancholia is a common example of moral insanity, as it often exists without delusion, even when accompanied by suicidal and homicidal impulse.

The book of Balfour Brown is not quite a *medical* jurisprudence, since its author approaches his subject with something of a legal bias. He, however, admits the same divisions and forms of mental disease given by Dr. Ray. M. Tardieu also recognizes similar distinctions. His book is further valuable for thirty cases, involving medico-legal inquiry. He gives several examples of the "mania of persecution" (see book of Le Grand Du Saulle before mentioned), of which rather common form of disease, Little, the Dix Island murderer, was the victim (State of Maine, Knox Co. vs. Little, 1872). He gives also fifteen *fac similes* of the writing of the insane (see also *Jour. Men. Sci.*, Jan., 1871).

Alienists have long held the time honored legal tests of responsibility in little esteem, and there is a growing distrust of them in judicial quarters, leading here and there to decisions more in consonance with truth. Judge Doe, in a careful review of the subject, denies that there are any well established legal tests of insanity, contradictory precedents annulling each other (see State of N. H. vs. Jones, Andover, N. H., Aug. 12, 1872). Henry L. Clinton, Esq., however, goes out of his way to abuse experts, Dr. Ray particularly, to deny the "modern doctrine of insanity," and to re-affirm the tests of "delusion" and "knowledge of right and wrong" (see argument before Judiciary Com. of N. Y. Senate, April 15, 1873).

Dr. Reynolds's little book shows clearly upon what inadequate scientific grounds these ancient tests repose, and suggests a commission from the legal and medical professions, for the arrangement of some common basis of opinion, and for the settlement of the method of employing experts and other questions of a practical nature.

The hereditary nature of crime and the low mental status of criminals is very ably discussed and illustrated by Dr. Thompson. His paper, as well as the extensive work of Dr. Despine (*Psychologie Naturelle*, &c. 3 vols. Paris. 1868) on the same subject, should be more widely known.

*Mania transitoria* finds a defender in Dr. Krafft-Ebing, who gives illustrations of seven conditions under which it may occur:—1. The state of dreaming. Of this form, the case of Albert J. Tirrell, defended successfully by Rufus Choate, twenty-five years ago; and the recent case in New Hampshire, of the homicidal boy somnambulist, Fitts, are examples. 2. Different kinds of intoxication. 3. The delirium of fevers. 4. Transformed neuroses, such as epilepsy, chorea, asthma, neuralgia, hysteria, &c. 5. The transitory psychoses (see Dr. Jarvis's Memoir in the *Am. Jour. of Insanity*, July, 1870). 6. Pathological passion. 7. Transitory intellectual troubles at childbirth. *Mania transitoria*, in some or all its forms, has been recognized by every writer of note for fifty years. The relations of epilepsy to legal medicine are fully treated by Dr. Echeverria, of New York.
Mineral Springs of North America: How to reach and how to use them. By J. J. Moorman, M.D., Physician to the White Sulphur Springs; Professor of Medical Jurisprudence and Hygiene in Washington University, Baltimore; Member of the Medico-Chirurgical Society of Maryland; of the Baltimore Medical Association, &c. Philadelphia: J. B. Lippincott & Co. 1873. 8vo. pp. 294.


Several years ago, it fell to our lot to notice, for the Journal, the admirable work of Dr. John Bell on Baths, and which must always remain one of the "standard" productions upon the topics of which it treats. Both the writers whose works we are now about to introduce to the readers of the Journal, refer with respect to Dr. Bell's pages, and are careful, throughout, to credit all other authors duly.

It is somewhat remarkable that two works so nearly alike in their subject, scope, and aims, should be almost simultaneously published. An attentive examination of both leads us to highly commend them, for carefulness of preparation, thorough research, and full information upon the points which they examine. Both writers seem to be animated by an honest purpose, and to take a lively interest in the important facts and questions which they consider. Dr. Moorman, whose character and reputation as a physician, are, we presume, well and widely known, has had almost a life-long experience as a resident, professionally, "throughout the watering season" at the White Sulphur Springs of Virginia, upon the value of whose waters we have no need to expatiate, since their virtues are so universally known and appreciated. We believe in the conscientious and careful perusal of Prefaces and Introductions, and are constrained to say that Dr. Moorman's opening pages of this sort are well worthy of attention, although we do not like, nor do we see the necessity for, their caption, viz., "To the Public." This may be a trifle not worth commenting upon, but, in our opinion, it is a blemish upon an otherwise unexceptionable book, which should have been introduced to the world without even a suspicion of the ad captandum style. However this may be considered, we do not doubt the sincerity of the author's concluding sentence, in his address "To the Public"—"upon the honest integrity with which they (his opinions) have been formed, the invalid, the profession and the general public may rely."

Dr. Moorman has not—as the title of his volume sufficiently indicates—restricted his researches to the Medicinal Springs of Virginia. Chapter I. is devoted to the consideration of "Mineral Waters in General," and is valuable and interesting. We are somewhat struck, en passant, with the copious use of italics in this chapter, and indeed throughout the volume—an undesirable feature, typographically and generally.
Dr. Moorman is to be commended for the straightforward and sensible terms in which he treats of the use of "mineral waters in general"—in some of the earlier pages of his book particularly. Of course, the teaching is not new, from the mouths and pens of medical men, but as the "Public" sadly need instruction upon these points, and that continually, we are glad that they can have the opportunity to be guided by such correct sentiments. The following extracts are specimens of the prevalent tone of remark in the direction to which we have alluded. "Mineral waters are not a panacea; they act like all other medicines, by producing certain effects upon the animal economy, and upon principles capable of being clearly defined. It follows that there are various diseases and states of the system to which they are not only not adapted, but in which they would be eminently injurious" (p. 25). "To one familiar with the many errors and mistakes committed in the use of mineral waters in this country, it will not seem wonderful that numbers return from visiting our most celebrated watering places without having received any essential benefit, but be rather a matter of surprise that so large an amount of good is achieved." * * * * "It is a subject of daily and painful observation, at all our principal watering places, to witness numerous individuals using mineral waters that are not adapted to their cases; and still more common is it to see those, to whose cases they are adapted, using them so improperly as entirely to prevent the good they would accomplish under a proper administration" (p. 28). We not only heartily endorse the foregoing remarks, from personal observation, but in addition would signalize the absurdity, so constantly committed at all watering-places, of visitors who are perfectly well, and who come chiefly for pleasure-travel, or to mingle in the gaieties of these resorts, imbibing resolutely, largely and constantly, the medicinal waters. The somewhat ludicrous, though to the individual concerned, rather trying and melancholy; experience of a young man misguided in this manner, and which we witnessed in one of our earliest visits to Saratoga, recurs vividly to our remembrance. Rising early for three successive mornings, he swallowed cup after cup of water from the sparkling fountain—reaching the acme of distention of his stomach on the third morning, when that overcharged viscus relieved itself by an abundant cascade, returning to the surface of Mother Earth most of the liquid just appropriated from her bounteous internal resources! We need hardly add that this hydraulic display was not exactly the finale. Our imprudent friend had gripings, many and sore, in the abdomen, and action as if from Glauber's salt for nearly an entire day. His digestion was disturbed, more or less, for a week, and he left the Springs in a ferocious and surly mood, to seek diversion elsewhere. He would have passed his time very pleasantly at Saratoga, if he had let the water alone. He had no need, whatever, for any medication, whether by "mineral waters" or through other vehicles. It is the "old story" over again—much as it is with regard to health-seeking climatically considered—no suitable advice is taken—people dash or creep about the world in a purposeless way, nearly sure to make egregious mistakes, and a thousand times to wish themselves at home. Nothing more easy than to avoid this by being in the first place "sure you're right," before you "go ahead." Consult a conscientious and competent physician, before running at random the round of travel in pursuit of health, or
drinking in reckless succession all the waters of the earth. Only last season, at Sharon Springs, N.Y., whose waters are confessedly powerful and have benefited large numbers of people, we witnessed the most undisputed bad results from needless, ill-directed and over-use of the waters, both internally and in bathing.

It would prolong this article beyond admissible or desirable limits, were we to touch, even, upon the various topics fully treated of in both the volumes under consideration. In Dr. Moorman's book, of course, particular attention is directed to the merits of the Virginia Sulphur Springs, and every information required, it would seem, is given. Between pages 62 and 63, we have a resplendent green parterre, with winding walks in white, and this is a "Bird's Eye View of the White Sulphur Springs"—a sort of Complete Guide for the traveller or invalid resident; and, in the very centre of this elaborate picture, we find "Dr. Moorman's office" carefully indicated—this for safety. Close by, is the "Old Ball Room," and not far off a monster "Hotel"; "Music Stands," Lovers' "Walks," "Leaps" and "Rests"—this latter portion of the map a veritable study in its minute subdivisions!

Dr. Walton's book takes a wide range, and seems to have been studiously and carefully prepared. The author says, in his "Preface," that he has endeavored to arrange all the known facts concerning mineral waters in such manner that they shall be readily accessible (p. vi.). He has, for this purpose, examined the works of the best European authors, and has enumerated the medicinal waters of our own Continent. Very thorough analyses of the waters are to be found in both the volumes we notice—more especially, perhaps, in that of Dr. Walton. The latter writer begins his work with an "historical" chapter, and concludes it with one on "Sea-side Resorts." There seems to be an equally honorable and enlightened view of the subject in Dr. Walton's mind as we have accorded to Dr. Moorman; and we cannot do better, perhaps, than to support our assertion by one or two extracts. "Invalids should, as a rule, consult the resident physician on arrival at the Springs, who should be familiar with the precise action of the water, and adjust the dose to the varying conditions. For this purpose the patient should bring with him a statement of his case from his physician, which will enable the resident physician more readily to possess himself of complete knowledge of the course of the disease. Unfortunately, many of the physicians at springs in this country are there for a single season only, and therefore have not the inducement to become thoroughly acquainted with the action of the water, which is secured by permanence. Proprietors of Springs will do well to give close attention to the medical efficiency of their resorts. We cannot refrain from suggesting the impolicy of proprietors or physicians encouraging or permitting patients to remain when the waters are manifestly inapplicable to the disease. Neither is it advantageous for proprietors to advertise their waters as curative of a large number of maladies for which they have no special application. The springs are thus reduced to the level of quack nostrums, and the trifling present gain of such a course is more than counterbalanced by the loss of reputation which the water suffers by failure to cure or relieve" (pp. 116, 117). There are several "Skeleton Maps," very well executed, and sundry illustrations, besides, in Dr. Walton's volume.
The maps are of portions of the country in which springs notably exist, and the latter are carefully indicated. Both volumes give directions "how to reach" the springs in the various sections of the country, and nearly always very correctly. To go to Sharon Springs, N. Y., it is not, now, necessary to take stages from Palatine Bridge—as Dr. Moorman’s book states—as the rail goes through to Sharon, by branch from the main track from Albany.

To sum up:—1. Whilst it is easily demonstrable that simple water, one of the best gifts of Providence to mankind, may, like other liquids of greater potency, be abused, so, like them, it clearly has its uses.

2. Mineral waters are often agents of great power, and require care and judgment on the part of the prescriber and of the consumer.

3. Those who use these waters should do so under the advice of competent physicians; and, in addition, they will find a nicely printed Guide-Book and répertoire not amiss. So, let them furnish themselves with one or both of the volumes we have been examining; and, if they go into their neighborhood, be sure to consult their authors.

4. Let mere tourists, without special ailments, let mineral waters alone.

Some precautions like the above will bring medicinal springs into better repute and truer usefulness, and they will not—as they nearly always have been—be only, or chiefly, useful (or instrumental) in filling the pockets of sharp landlords, agile bar-tenders, impudent carriage-drivers, indifferent bath-servants or thriving gamblers.

We must not conclude without commending the Publishers of both volumes for the very excellent manner in which the printing, illustration and binding are done; and, as a last compliment to both authors, we thank them for their full and satisfactory indices.

W. W. M.

BOOKS AND PAMPHLETS RECEIVED.

Annual Reports of the Board of Visitors, Trustees, Treasurer and Superintendent, of the New Hampshire Asylum for the Insane. Nashua: Orren C. Moore, State Printer. 1873.
On Yeast, Protoplasm and the Germ Theory. By Thomas H. Huxley, F.R.S.
During the past few weeks, all doubt as to the existence of cholera in this country has passed away. It has shown the same erratic character as in previous epidemics, seizing upon certain localities, killing and dispersing the inhabitants, and in a few weeks subsiding, and transferring its ravages to another place. Meanwhile, its general advance northward and eastward is quite evident. That it will, ere long, reach the great cities of the Atlantic seaboard must be regarded as extremely probable. The duty of the hour is to prepare to meet it by scrupulous cleanliness in all our crowded towns. Our profession are the natural guardians of public health, and will always be found ready to assist the authorities in this work for the preservation of life. There has not been a time during the past quarter of a century when this influence could be used to such advantage as in this present summer of 1873.

A writer in a Washington paper has recently suggested a novel method of cooling and purifying the air of large cities during the heated term. The waste-water of fountains was to be sent one or two hundred feet into the air in the form of fine spray or vapor, by powerful machinery intended to force it through a form of atomizing apparatus. The temperature of the air is said to be materially lowered by the presence of this vapor, which also greatly increases its purity by the removal of all dust particles with which the air may be charged. Although no such wholesale system as our ingenious friend suggests may prove to be feasible, there is no doubt that much might be done to make our cities more comfortable and attractive during the hot weather than they now are, and we are glad to see that people are beginning to realize it. It is doubtless a difficult task to cleanse an atmosphere charged with every possible sort of impurity which has accumulated during a dry term. We can, however, do much to prevent this contamination of the air by attacking the sources whence the dust particles arise. The more dangerous of these are already, in this city, being properly attended to by our Board of Health. The cellars and vaults are purged of their filth, but why should not our streets and thoroughfares which are frequented by all classes of the community be kept in a condition more conducive to their health and comfort? We cannot help feeling that no greater step can be taken
towards beautifying and rendering attractive a large city, to say nothing of the effect upon its health, than in an improved system of keeping its streets clean and free from dust. We have yet to learn in this respect much from certain European cities. The system by which the French capital is kept in such superb condition is perhaps the most perfect that exists, and we would recommend it to the attention of our city fathers. The streets in that city are daily swept and watered, and a large array of workmen are permanently employed to keep them in proper repair. In this city, a street once made is supposed to run itself for an indefinite period, is rarely swept and never watered by the city. Would not the beauty of the city, the value of its property and the health of its inhabitants be enhanced by such an improvement. It would necessitate undoubtedly a large appropriation, but we think it would pay.

Rare Disease of the Eyelids.—Dr. Argyll Robertson describes a rare affection of the eyelids, which he denominates elephantiasis of the lids. In the case which came under his observation, the disease appears to have begun as an ordinary oedema, but had endured for several years even after repeated and various treatment. Further, there was little pitting on pressure, and no oedema in any other part of the body, nor was there any sign of cardiac or renal disease. The swollen condition of the lids had the unfortunate effect of narrowing the field of vision, and thus interfering with the patient's occupation, on which account it was proposed to remove a considerable portion of the hypertrophied skin.—Edinburgh Medical Journal.

Correspondence.

NEW ORLEANS, La., July 11th, 1872.

Messrs. Editors,—During the past ten days, our city has been without the usual Gulf breezes which render our nights cool and refreshing and moderate the fierce heats of a sub-tropical summer. Several cases of sunstroke have occurred, and in one, in which the temperature was noted, it was found to be 112° in the axilla at the moment of death.

As a general rule, sunstroke is much less common in New Orleans than in Philadelphia and New York. This difference appears to be due to the more uniform temperature, the wide streets, the great extent of ground occupied by the city along the banks of the greatest river in the world, the prevalence of cool, refreshing Gulf breezes, the large rain-fall, and the absence of any very great crowding of the population in New Orleans.

Up to the present time, New Orleans has been free from yellow fever. During the past two years, yellow fever has prevailed "sporadically" during the months of August, September and October. In 1867, the epidemic of yellow fever affected the entire city, and though an immense number of cases occurred (estimated by some as high as 80,000), the mortality was small, being only 3,107 in a population of near 200,000. Preceding this epidemic, the citizens and Confederate soldiers, who had suffered a temporary absence during the civil war, returned, and there was also considerable influx of emi-
grants and strangers. It is supposed that the greater proportion of the population of New Orleans, who were susceptible to the action of the poison of yellow fever, were affected at this time; and the subsequent exemption of the city from the pestilence is referable chiefly to the fact that there has subsequently been no great influx of emigrants and strangers.

The temporary check in the natural growth of this important city, by additions from Northern and Western States and from Europe, has been referred, by some, to bad government and such an enormous increase of taxation as to render the possession of real estate an actual calamity.

The deaths from yellow fever during the past five years were as follows:—
in 1868, 3; 1869, 3; 1870, 587; 1871, 52; 1872, 39.

The relative mortality to the number of cases has been great during the past two years; thus, in 1871, of 114 cases, officially reported, 54, or nearly one half, terminated fatally; in 1872, of 83 cases, 39 proved fatal.

The circumscribed nature of the yellow fever of 1871 and 1872 cannot be justly referred to any improvement in the sanitary condition of the city, nor to any measures for the arrest of the disease, for the manifest reason that the disease has, at various times in the history of New Orleans, been limited in a similar manner; thus, in 1844, there were 148 deaths; in 1845, 2 deaths; in 1846, 160 deaths; 1850, 107 deaths; 1851, 17 deaths; 1856, 74 deaths; 1859, 91 deaths; 1860, 15 deaths; and 1866, 185 deaths from yellow fever.

The attempts to decry a just system of quarantine, upon such slender and uncertain data as those furnished by the limited prevalence of the disease in 1871 and 1872, is scarcely worthy of serious consideration, much less of an extended discussion. A similar remark is applicable to the so-called sanitary measures, which some have vaunted as the cause of the limitation of the disease in 1871 and 1872. We are in favor of the most rigid sanitary measures and of the most carefully conducted experiments; but we are opposed to hasty conclusions drawn from a limited experience of two or three years.

During the past six months of the present year (1873), meningitis has prevailed to such an extent as to attract some degree of consideration; 79 whites and 41 colored (total, 120) having fallen victims to this form of disease. As far as my experience extends, cerebro-spinal meningitis (epidemic meningitis) is characterized by true inflammatory symptoms; viz., elevation of temperature, derangement of digestion, aberration of nervous and muscular phenomena and increase of fibrin in the blood. Post-mortem examinations have confirmed previous observations, that the disease consists essentially of an inflammation of the arachnoid and pia mater of the brain and spinal cord. Unlike the true fevers, the blood is charged with fibrin, and fibrinous deposits are formed within and around the inflamed meninges of the brain and spinal cord. The fatality attending this disease must be referred to the character of the organs involved, and also to the destructive effects, caused by the effusion of coagulable lymph and inflammatory products, within the cavity of the cranium and spinal cavity. Cerebro-spinal meningitis is to the membranes of the brain and spinal cord what pleuritis is to the investing membrane of the lungs. It should be classed with the phlegmasiae, in which there is an actual increase in the fibrin of the blood, and not with the pyrexiae, in which this element is deficient. The treatment which has yielded the best results in my hands, has been the application of blisters to the back of the head and along the spine, purgatives and the alterative action of mercury in combination with opium and quinine. The bowels are freely opened by means of calomel and injections, and the patients are kept, during the active stages, under the influence of small doses, at regular intervals, of calomel, quinine and opium. From one-fourth to one-half of a grain of opium, in combination with one grain of calomel and two grains of quinine, are administered to adults every three or four hours. Hydrate of chloral and bromide of potassium, administered in medium doses at short and regular intervals, proved beneficial in some cases, in addition to the remedies just mentioned. The diet should be light, but nutritious—beef-tea and milk; and, when the pulse is feeble and rapid, milk punch. It should be remembered, that when the active inflammation subsides, convalescence is necessarily protracted and tedious,
in cerebro-spinal meningitis, on account of the efforts of the fibrinous effusion upon the functions of the brain and spinal cord. It is important, therefore, that the strength should be sustained by the judicious use of tonics and alcoholic stimulants, and by good diet, during the protracted convalescence. The absorption of the inflammatory products may be promoted by iodine and iodide of potassium. After the subsidence of the active inflammatory symptoms, the loss of muscular power and paralysis which remain, in some cases, may be relieved by the careful use of electricity.

The recent epidemic of cholera, which commenced in the early part of February and disappeared in the latter part of June, was less severe than in the two previous visitations of this pestilence in New Orleans. Although the fatal cases were marked by the prominent symptoms of Asiatic cholera, and presented, upon post-mortem examination, its characteristic lesions, the vast proportion of the cases, "when taken in time," yielded readily to treatment, and the mortality has been comparatively small. Thus, during the months of February, March, April, May and June, 117 whites and 116 blacks (total, 233) died from what was registered in the official mortuary reports as cholera sporadica; and cholera morbus and cholera infantum destroyed 62 whites and 22 colored; diarrhea and dysentery, 109 whites and 48 colored; total deaths from all intestinal diseases during the past six months, whites 360, colored 234 (total, 600).

This is comparatively small mortality from cholera in a population of 200,000; and as the whites constitute about three-fourths, and the colored people only one-fourth, it is evident that cholera, as well as other intestinal diseases, has been much more fatal amongst the colored population. This difference appears to be due in large measure to the fact, that as a general rule, the colored people occupy the more unhealthy and crowded portions of the city, and are less careful in their habits and diet.

The sudden subsidence of the cholera, is not to be referred to the sanitary condition of the city, which could not, perhaps, be much worse at this season of the year; nor to the universal employment of any special means of disinfection. Numbers of cases have occurred in localities where no disinfection was practised, and it is probable that only the severe and fatal cases have been reported to the local sanitary officers. The peculiarly mild character of the recent epidemic, may be due to certain unknown conditions of the atmosphere and soil, and to the heavy rain-fall, almost twenty-two inches of water having fallen during the past six months.

Cholera first appeared in New Orleans, Oct. 25, 1832. The population of the city was, at that time, about 50,000. Dr. Campbell, one of the oldest physicians in New Orleans, informs me that in 1832, cholera spread with wonderful rapidity all over the city, and that the mortality was fearful, as many as 500 deaths having occurred in one day. Entire families were swept off; the living were scarcely able to bury the dead. The disease committed great ravages upon the surrounding plantations. The alarm amongst the negroes was so great, that in one instance the entire population of a large sugar plantation on the Mississippi river fled and encamped upon the borders of Lake Ponchartrain.

Whatever measures may be instituted in the treatment of cholera, absolute rest from the inception of the first symptoms, and throughout the disease, is absolutely essential.

Whatever doubts might be entertained in the minds of the physicians of New Orleans, as to the nature of the recent epidemic, it is now well established, that the disease has followed the main lines of commerce on the Mississippi river, prevailing at various towns and plantations, up to Memphis, from which latter place it is supposed to have been carried to Nashville, Tennessee.

I will endeavor to forward to your valuable JOURNAL such facts as I may be able to gather with reference to the recent epidemic of cholera in Tennessee.

Respectfully,

JOSEPH JONES, M.D.
Medical Miscellany.

To Remove a Plaster Bandage.—Soak the bandage in a solution of salt. The plaster crumbles.—Clinic.

The British Medical Association has increased its number of members from two to five thousand during the last ten years. This is mainly due to the influence of the British Medical Journal, which has a circulation of several hundred outside the association.

Anti-neuralgic Snuff.—Dr. F. Scriffignano recommends in facial neuralgia, especially of the periodic form, the use of snuff containing fifty centigrammes of quinine to one gramme of tobacco. Pinches of this mixture are to be taken at frequent intervals during three consecutive days.

Exchanges with Periodicals.—In consequence of the new post office regulations, which now require the payment of postage on periodicals in exchange for other periodicals, the Journal will in future be discontinued to some of the Publishers who have heretofore received it in exchange. In cases where the exchange is continued, we shall, unless some other arrangement be made, pay the postage here on exchanges that come to us, and expect the same to be done on ours where received.

Excision of Superior Maxillary.—John P. Wall, M.D., of Tampa, Florida (Atlanta Med. and Surg. Journal), records a case of excision of the superior maxillary bone, the patient being a female child of eight years. The chief interest of the case consisted in the absence of any kind of pain, the rapidity of the growth without known cause, and the rarity of such a diseased condition of this bone in children.

The Cholera in Europe.—A report from Vienna, dated July 3d, states that a formal denial is given to the news of an outbreak of cholera in this city. A few cases have occurred among foreigners who have arrived from places where the epidemic prevails, or passed through the infected districts on their way hither. The disease has no epidemic character, and the general health of the city is satisfactory. In the Dresden district, from June 24th to July 7th, there had been 55 cases with 29 deaths. In Breslau, up to Monday night, 18 persons had been attacked, of whom 14 had died. A cholera committee has been appointed for the German empire, consisting of General Surgeon Dr. Böger and Dr. Hirsch of Berlin, Dr. Max von Pettenkofer of Munich, Dr. Günther of Zwicken, and Dr. Volz of Carlsruhe. Eight cases, with four deaths, are reported to have occurred at Lautenburg near Strasburg. Cholera has broken out in the Italian provinces of Treviso and Venice. In the former, up to July 8th, there has been 41 cases, with 25 deaths and 28 recoveries; in the latter, 55 cases, with 26 deaths and two recoveries.

The Prosecution of Obscene Quacks.—The Society for the Suppression of Vice, whose age numbers three-score and ten years, held its annual meeting this week in the Freemasons' Tavern, Great Queen Street; Lord Ebury in the chair. The report stated that as to pretended medical works, the Committee had hitherto refrained from interfering, as they conceived it rather the duty of the College of Surgeons or the Treasury to test the question whether the law would afford a remedy in such cases. As neither took up the point, the Society had tried the question whether such works were protected by law, and had obtained a favorable judgment, which would operate as a precedent ever after in similar cases. The Society, therefore, earnestly appealed for contributions to discharge this amount. A prosecution had also been undertaken against a so-called anatomical museum, the result of which had been an intimation that it would be closed.—British Medical Journal.
REPLANTATION OF TEETH.—An article in the January number of the Dental Cosmos, on "Replantation of Teeth," leads me to state that in my practice replantation of teeth has nearly ceased to be an experiment. Within the last three years I have successfully performed the operation on five teeth (two for one patient). In each case the tooth was badly decayed, and the root ulcerated. After extracting and treating the tooth socket, I treated the root, and filled not only the cavity but the nerve canal in the root, and replaced the tooth, and without an exception each operation has been a perfect success.

The first patient whose tooth I treated in this way was a young man with whom I was very intimate; he had an ulcer, which gave him much trouble, on the superior incisor. It had been filled several times with different materials without satisfactory results, and he was obliged to have it extracted, and as an experiment I offered to undertake the operation of replacing it, after removing the ulcer and properly filling the tooth. The operation consumed about seventy minutes. There was much sensitiveness about the tooth at first, which soon subsided, and about a year afterward he had the other superior incisor treated in the same manner.

It is now over two years since the last operation, and, to use his own words, "They are the best teeth I have." Since then I have performed the operation on three different patients, and every case has proved a perfect success.—Dental Cosmos.

TUBERCULOSIS AND HUMANIZED LYMPH.—In a correspondence of the Gazette Médicale, 26th April, there are some propositions formulated by Drs. Paraskeva and Zallones, of Greece, concerning repeated experiments made by them of inoculation on rabbits. of vaccine virus taken from persons in the second stage of phthisis. From these they think it seems as if tuberculosis were transmissible by vaccine. Here are their words:

1. The animals on whom the experiments were made, were in the most healthy condition.
2. Vaccine taken from a tubercular person may produce tuberculosis on one (animal) that enjoys perfect health.
3. The blood of a person with cavities in the lungs, carries with it the tubercular virus, and this poison is found in the liquid and solid part of the blood.
4. Fourteen days sufficed for the development of the tubercle in the animals affected.—L'Indépendente, May, 1873.

MORTALITY IN MASSACHUSETTS.—Deaths in fourteen Cities and Towns for the week ending July 19, 1873.


Prevalent Diseases.—Cholera infantum, 81—consumption, 48—scarlet fever, 18—dysentery and diarrhoea, 13.

Six deaths from smallpox occurred in Holyoke, and one in Boston. Of the deaths from cholera-infantum, forty-three occurred in Boston, eleven in Worcester, ten in Fall River and eight in Lawrence. Of the deaths from scarlet fever, fourteen occurred in Boston.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, July 19, 1873. Males, 84; females, 97.

Accidental, 4—apoplexy, 4—inflammation of the bowels, 5—bronchitis, 1—inflammation of the brain, 1—congestion of the brain, 2—disease of the brain, 9—cyanosis, 1—cancer, 2—cholera infantum, 4—cholera morbus, 4—consumption, 29—convulsions, 6—debility, 4—diarrhoea, 6—dropsy of the brain, 4—drowned, 1—dysentery, 3—erysipelas, 1—scarlet fever, 7—typhoid fever, 2—disease of the heart, 7—hemorrhage, 1—disease of the kidneys, 5—congestion of the lungs, 3—inflammation of the lungs, 6—malaria, 6—old age, 2—palsy, 1—pleurisy, 1—premature birth, 2—peritonitis, 2—pyaemia, 1—rheumatism, 1—seared, 1—substroke, 1—unknown, 1.

Under 5 years of age, 104—between 5 and 20 years, 10—between 20 and 40 years, 22—between 40 and 60 years, 24—over 60 years, 21. Born in the United States, 145—Ireland, 23—other places, 15.
Original Communications.

NERVOUS DISORDERS OCCURRING DURING VARIOLA.

By James J. Putnam, M.D.

From reading the report of an interesting case of general paralysis consequent upon variola, reported by Dr. Goss in the Journal for May 8th, I was induced (as I hope other physicians will also be, whose field of observation during the past epidemic has been larger) to report briefly another case of nervous disease occurring under somewhat similar conditions, although of a different nature from his.

James English, blacksmith by trade, was attacked on the 10th of December, 1872, with the usual symptoms of variola, which soon became so severe that he lay for several days without consciousness. On the eighth day of the attack, consciousness having begun to return, he noticed that his right shoulder felt heavy and unwieldy. At the same time he began to suffer from severe pains, generally deep-seated and of a dull aching character, which extended from the spine to the top of the right shoulder and down on to the upper part of the arm. After three or four days, the pain began to abate and gradually disappeared. On first leaving his bed, in the fifth week of the disease, the patient found himself unable to raise the right arm above the shoulder, and, in short, with complete paralysis of the right serratus magnus, or, properly speaking, of the posterior thoracic nerve, and in this condition he came, four weeks later, under my observation in the Out-Patient Department of the Massachusetts General Hospital. At this time, the posterior thoracic nerve which supplies the serratus had lost its power of responding to faradization, and the rhomboid muscles of the same side and the lower part of the trapezius responded less readily than those of the opposite side. The fact that so few muscles were affected even at the outset, together with the fact that the electrical excitability of the nerve had disappeared, rendered it certain that the thoracicus posterior had been so injured somewhere in its course as to cause its peripheral extremity to undergo degeneration; and that, since the rhomboids were somewhat affected, it seemed probable that the seat of the lesion was at the level of the scalenus medius which the two affected nerves perforate in company, both of them being formed, one wholly, and the other
in part, by fibres from the fifth dorsal nerve. No other nervous disturbance was to be found. The patient was treated for two months with large doses of strychnine, given by the mouth, and with galvanization of the affected nerves and muscles, but, except that he learned to use his arm more skilfully, he became no better.

Reports of nervous disorders after variola as also after the other exanthemata are occasionally met with in literature, though but little light has been thrown until recently upon their pathological anatomy.

Eulenburg* refers to a number of cases reported by Gubler, Freind, Leroy d'Etiolles, Contone, Reynand, Pidoux. The lower extremities were generally attacked alone; sometimes, however, the soft palate, the bladder, the rectum, also. The paraplegia was generally accompanied by anaesthesia, sometimes in the beginning by hyperaesthesia. There was opportunity for but two autopsies which gave negative results. Most of the cases ended in complete or partial recovery after two to six months. Eulenburg had himself observed a case of partial paralysis of the left facial and both median nerves in which the electrical reaction was but little changed, and the course of the disease was favorable.

Rosenthal† of Vienna, reports a case where variola was followed in six months by progressive muscular atrophy.

An epidemic occurring in Berlin during the winter of 1870–71, gave opportunity to Prof. Westphal of observing a number of cases of great interest.‡ Two of these (both light as far as the variola was concerned), in which there was almost complete paraplegia appearing on the third and eighth day, respectively, ended fatally; one from periyphlitis, the other from cystitis with decubitus; and the autopsy showed in both diffused myelitis, spots of softening of the size of a pin's head being scattered irregularly throughout the spinal cord. Five of these cases as well as a similar one reported by Pforzheim,§ were characterized by:

1. Ataxia and tremor in all four extremities and the muscles of the face, present only during the performance of some act requiring voluntary coördination.
2. Slowness and awkwardness in movements.
3. Involuntary repetition of single movements, especially those of the fingers.
4. Slow, monotonous, explosive manner of speaking, with faulty articulation and without modulation of the voice.
5. Mental depression.
6. Temporary congestions in different parts of the body, especially the head.

In short much the same set of symptoms as characterize disseminated sclerosis of the brain and cord.

† Nervenkranckheiten. Erlangen. 1870.
‡ Berliner Klinischer Wochenschrift, Nov. 18, 1872.
§ Schmidt's Jahrbücher. No. 1. 1873.
Westphal suggested that in these cases there had been diffused myelitis, which had in fact finally resulted in sclerosis; and his idea was strengthened by the results of an autopsy made by Erbstein in a similar case occurring after an attack of typhoid.

Breganze* reports a case of aphonia coming on during variola in the height of the fever, but yielding finally like hysterical aphonia to a single application of electricity, leaving, however, a degree of stuttering behind. He considered the cause to be cerebral atony, due to exhaustion from the disease.

In this connection a case may be mentioned† where a patient became suddenly comatose after an attack of measles, and remained, after the coma had passed away, with loss of coördinating power in all four limbs, such as has been referred to above.

Two cases were observed by Dr. Hitzig during the epidemic in Berlin, which closely resemble the one which I reported at the outset. In one of them, there was severe neuralgia with partial motor paralysis in the parts supplied by the nerves of the brachial plexus on both sides; in the other, neuralgia of the arm and shoulder, with paralysis of the deltoid alone, on one side only. Where the paralysis is thus circumscribed, the opinion seems to be that hemorrhage has occurred among the fibres of a nerve trunk, as has sometimes been found after typhoid, and the diffused myelitis may have a similar origin, although it is noticeable that the cases in which these paralyses occur, are not necessarily of a severe or a hemorrhagic form. In both of Hitzig's cases, the paralysis came on very early in the disease, and was certainly not due to exhaustion.

A writer in the Arch. de Physiologie Normale et Pathologique (January, 1873) remarks, in referring to Westphal's cases and reporting an analogous one, that he had examined the spinal cord in a great many ordinary cases of variola, but had never noticed anything abnormal.

International Medical Congress.—The third annual session of the International Medical Congress will be held the present year at Vienna, during the Exposition. The Congress will convene, under the patronage of the Archduke Rainer, upon the 2d of September, and the session will last until the 10th. Meetings will take place each day (Sundays excepted), from 9, A.M., till 1, P.M. Upon the first and last day of the session, Prof. Rokitansky, being president of the executive committee, will preside. For the other days, the presiding officers will be chosen by ballot. The other members of the executive committee are Professors Sigmund, Hebra, Benedikt and Schutzler.

† v. Centralblatt for Feb. 15, 1873.
Progress in Medicine.

ON DISEASES OF CHILDREN.

By D. H. Hayden, M.D.


In the first article, the author gives the results of experiments recently made with infusions of the pancreas and of the parotid gland taken from infants who had died of various causes, principally of intestinal and of thoracic diseases. These experiments were conducted all in the same manner, and, when possible, a quantitative analysis of the glucose was made. The following are the conclusions arrived at:

Infusions of the pancreas of infants only a few months old have absolutely no glycogenic action upon starch, this becoming first demonstrable at two months of age, and then only in a very slight degree; but, at the end of the third month, it is so great that in some cases the amount of sugar could be determined quantitatively. The fermentative action increases with age, and, at the end of the first year, is at its height.

The infusions of the parotid gland, on the contrary, convert starch into sugar in the very first days of life, and the amount can be quantitatively determined. The larger the size of the child the more powerful is the action.

In the second article, the author gives the results of experiments with the saliva of infants and new-borns as to its action upon starch. To obtain the saliva, small lightly pressed pieces of soft sponge were used, the infants being allowed to suck them, and the saliva, thus accumulated, squeezed out; by a frequent repetition of this process, a sufficient quantity for all purposes was obtained. The collection of saliva in this way is possible a very few minutes after birth, but during the first month, especially during the first two weeks, great difficulty is experienced and very persevering efforts required. The largest amount obtained at this early age did not exceed a centimetre, requiring from fifteen to thirty minutes in the operation; sometimes only a few drops were obtained, but such unfavorable cases were very rare except in the first ten to fourteen days of infant life. After the first month, especially after the first month and a half, the secretion of saliva begins to increase very largely in amount, and its collection becomes very easy; in the fourth month, it is so large that in the course of five or ten minutes from one to one and a-half centimetres are collected with ease. At this age, sometimes later, the saliva begins to flow out of the corners of the mouth. With the saliva collected from seventeen new-borns from one to ten days old, the author was able to demonstrate in each case, the conversion of starch into sugar. The number of infants up to eleven months of age comprised twenty-five, several of whom were under the author's continued observation for from five to six months. In all cases, where possible, quantitative analyses of the sugar were made. The number of experiments up to the present time
is so small that the author regards his conclusions as more theoretic than demonstrated, but as a result of his investigations, it is shown that the saliva of an infant, immediately after birth, possesses the power of converting starch into sugar, this property increasing as the child grows older. The quantitative analysis shows a very great difference of degree in this fermentative property of saliva in the different months of infant life; at eleven months it reaches its height, and some at this age, compared with an equal quantity of his own, was found to contain the same amount of sugar.


The causes of constipation, a complaint so frequent in infancy, the author finds in the want of development of the muscular coat of the intestines, in the peculiarity of infants’ food and of their mode of life, and also, in the length of the colon descendens, especially of the flexura sigmoidea. The feces lose their pulpy consistence, and defecation, which should normally take place without any great effort, becomes difficult and is accompanied by colicky pains; the latter come on sometimes only at the time of dejection, at other times periodically and independent of it; in the latter case, there is always meteorismus, which in its turn leads to the symptoms of dyspepsia. Attacks of colic may give rise to convulsions, especially in children affected with chronic hydrocephalus, microcephalus, craniotabes, rhachitis or anæmia. As a result of straining, atony and paralysis of the bowels follow. Constipation, both accidental and habitual, is often accompanied by dysuria. The author places the causes of constipation under the following heads:—

I. Mechanical obstructions; (a) congenital malformations of the intestine; *imperforatio* or *stenosis recti congenita, partialis et totalis*; retention of the meconium with secondary symptoms of ileus; (b) acquired; strangulation of a hernia, invagination of a portion of the intestine, fissura ani, atresia ani and partial stricture of the rectum (cicatrices dysenteriae).

II. Want of nourishment in cases of congenital malformation of the lips or of the pharynx, when the mother’s nipples are bad, or the secretion of milk too little, or the infant of too weak vitality to draw out the milk. In these cases the infant, in addition to constipation, secretes but a small amount of urine.

III. Improper nourishment; too much casein or too little fatty constituents in the milk; placing the infant too often to the breast; when brought up artificially, improper constitution of the food or insufficient quantity, either the result of the composition of the milk or too early use of starchy substances.

IV. Absence or diminution of the peristaltic movements of the intestines; atrophy of the bowels, with meteorismus in rhachitis, or after diarrhœa of long duration.

V. Diminution of the intestinal secretion, after long continued sickness, the result of anæmia.

VI. Symptoms of cerebral or of spinal disease.

VII. Result of want of supply of fluids, use of astringents, presence of ascarides, kernels of fruit, &c.; and, finally,

VIII. In large children, want of exercise.
The treatment depends upon the cause. The important point is to prevent a return of the constipation after the bowels have been freed of the accumulated feces. To effect the latter, the author recommends infus. senae (7.5 grammes ad aquæ fervid. 50 grammes, a tablespoon-ful every hour until operation), or still surer, hydromel infantum and rhubarb, syrupus spinæ cervinæ, or syrupus rhamis catharticæ. Ene-mata are necessary only when quick action is desired. Suppositories in cases of habitual constipation are never necessary. The causal treatment is determined upon in accordance with the above scheme. When there is a want of peristaltic action of the intestines, the author recommends cod liver oil and an enema of cold water at the same hour every day. With older children, after long continued disease of the bowels, there is an indication for marientbad, franzensbad or friederichshaller water; in anæmia, glerchenberger, or klausner spring water, for children under two years, thirty, for older ones sixty to one hundred grammes daily on an empty stomach.


Leopacher reports two cases of laryngeal croup (diphtheria) which ran a favorable course under the use of bromine-inhalations as recommended by Schütz (Chl. 1872, 429). With the exception of exciting a severe coughing spell there were no bad after results. The croup membrane expelled in one of the cases was tested as to its solubility in lime-water, chlorine-water, Schütz’s solution of bromine, simple bromine-water, solution of chloride of lime (not very concentrated) and bromine vapor. Lime-water worked the most rapidly, next chlorine-water, and then Schütz’s solution. That the former is so void of results in practice, the author explains by the lime becoming immediately saturated with carbonic acid. The bromine seems to act upon the connective tissue between the mucous membrane and exudation, and not as a solvent of the latter.

Letzerich in his “critical remarks upon the various methods of treatment of diphtheria,” says that, of the various remedies that have of late been recommended for this disease, none of them have accomplished much in the way of results. Of late years, remedies have been particularly brought into prominence, that exercise a greater or less solvent power upon the diphtheritic exudation, the most various substances having been tested in this way. Substances also have been employed, which have the property of destroying parasites, at the head of these standing carbolic acid. With all these remedies, it was sought to produce a chemical change in the diphtheritic membrane, and also, if possible, to destroy any parasites existing therein or penetrating into the mucous membrane and circulation. The so-to-speak solvent remedies are employed in such dilute solutions, and exercise such a momentary action, that, according to the author, they can never be regarded as the principal agents in the treatment of diphtheria, though they are in some cases recommendable as valuable auxiliaries. In cases not severe, where the exudation is of creamy consistence, applications, with a brush, of lime water, solution of bromide of potassium
and bromine, carbolic acid, or the insufflation of flor. sulph. are useful; in many other cases this method of treatment is of no avail.

According to the author, the important object in the treatment is the mechanical removal of the exudation, by means of small sponges; and when this does not succeed, he employs the index finger of the right or left hand, covered with a piece of linen cloth and soaked in a strong solution of alum, afterwards painting over the surface of the ulcer with a solution of argenti nitras, 1.0—1.5 grammes ad aqua destillat. 15—20 grammes. In the intervals, the author recommends lime water, solutions of bromine and bromide of potassium, or carbolic acid to be applied with a brush or used as a gargle. With this method, he has had the most brilliant results, having thus treated two hundred and thirty-four cases, of which only fourteen (5.97 p. ct.) died. The most scrupulous cleanliness and disinfection of the patient's clothing, bedding and chamber are to be insisted upon.

On the Treatment of Whooping Cough with Inhalations of Gazeol. Dr. Alois Monti, Instructor in the University of Vienna.—Jahrb. f. Kinderheilkunde.


There exists a great difference of opinion amongst medical men as to the value of inhalations of gases developed in the purifying chambers of gas-works, in the treatment of whooping cough, as recommended by Diday and Commenge. Burin de Buisson attributes this difference of opinion to the want of similarity in the gases thus employed, he having found by examination that not only do these gases differ in different gas-works but that also they are not the same at all times of the day in the same works. For this reason and owing to the fact that some of the gases are injurious, he was led to compound a mixture of volatile fluids which he called gazeol. The original recipe reads:

Aq. ammon. impur., one kilo-gramme.

Acetone, ten grammes.

Naphthaline (brown impure), one tenth of a gramme.

Benzole, ten grammes.

Tar, one hundred grammes.

Monti made experiments with this preparation in fourteen cases. Two to four tablespoonsful of the fluid placed in a small cup were slowly evaporated over a water bath. The inhalations were made in a small room where the children remained for one hour, three times a day, at 9 A.M., 2 P.M. and 5 P.M.

The result of this treatment is represented in a tabular form, and the author draws the following conclusions:

1. The inhalation of gazeol is in no ways a specific against whooping cough.

2. Employed at the commencement it is powerless to stop the disease. In eight of the cases the disease ran its course in spite of the inhalations.
3. The gazeol-inhalations are unable to mitigate the severity of the disease. In the eight fresh cases reported, the disease increased steadily in intensity for the first two or three weeks.

4. They in no way shorten the duration of the disease, in all the reported cases the pertussis lasting from six to eight weeks.

5. In old cases the treatment is equally fruitless.

6. In those cases complicated with severe bronchitis, pneumonia developed itself with fatal result. Without drawing any conclusions from this coexistence of the two diseases which may have been accidental, this circumstance seems to call for great caution, and in such cases (as is well known with regard to remaining in gas-works) the employment of gazeol-inhalations should be stopped.

In an epidemic of whooping cough in the Children's Asylum, Philadelphia, Dr. Thomas D. Davis, at the suggestion of Dr. T. S. Parry, made a trial of the fluid extract of castanea vesca with a large number of children varying from four to seven years of age. The author gives in tabular form the results in fifteen cases thus treated, the severest placed at the top. The number of paroxysms during each day of treatment is noted in such a way that under A is seen the number when treated with belladonna, under B when the expectant treatment was adopted, and under C when the fluid extract of castanea was used:

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The extract is prepared from the leaves of the castanea vesca (cupulifer). The bark of the castanea pumila was at one time officinal in the United States.

The first to recommend this remedy in whooping cough, was George C. Close (Amer. Pharm. Journal, 1863), an infusion sweetened with sugar being employed. Then followed in 1867, J. Unzieker (Cincinnati Med. and Surgical Reporter, 1867). After him, J. Ludlow (Cincinnati Lancet and Observer, March, 1869), and still later, Dr. A. S. Gerhard, in Philadelphia. John Mainsch (American Journal of Pharmacy, Dec., 1871) prepared the extract from leaves collected from July to October. Of the latter, dried and powdered, four hundred and eighty grammes are taken, and with one hundred and fifty grammes of glycerine, two hundred and forty grammes of sugar, and a sufficient quantity of water, a decoction made which is then boiled down to four
hundred and eighty grammes. Of this the dose for a child six years old, is from one quarter to one teaspoonful every three or four hours. The author declares the remedy to be an antispasmodic expectorant, of agreeable taste, and willingly taken by children. Although in the severe cases this treatment was not commenced until the disease had reached its height, the decrease in the number of paroxysms was so striking, and took place so immediately after the use of this remedy, that it cannot be denied that the castanea treatment was instrumental in producing the beneficial result. The author rightly says, however, that in a disease, the course and duration of which is so much influenced by outward circumstances, one can form a true judgment of the effect of a remedy only after very numerous observations upon patients placed under similar circumstances in every respect.

Dr. B. F. Dawson gives the results of his experience with large doses of quinine in the treatment of whooping cough. Sixteen cases were thus treated; the records of six are given in full, the remaining ten presenting similar histories. The shortest cure was effected in one day and the longest in twelve days. In but two cases was he disappointed in the efficacy of quinine, and the failure in these he attributes to the negligence of those in charge of them, one being a little girl in the care of her father, and the other a farmer's infant of twelve months. In both these cases, however, there was some palliation of the paroxysms. Though frequently there was some difficulty in getting the children to take so disagreeable a remedy, it was exceptional for them to resist after the first two or three doses, and in only a very few did it cause vomiting. The direction to give the children a piece of an orange or a little sugar, five or six minutes after taking the quinine, doubtless had considerable to do with their seeming willingness to take the "bitter medicine." Dr. Dawson, accepting the fungus theory of Dr. Letzerich as the true explanation of the cause of pertussis, attributes the efficacy of quinine to its well known destructive influence on fungoid development and consequently to its power of removing the cause of local irritation which gives rise to the reflex phenomena evinced in the whooping.

The author, however, regards as another factor in producing the rapid cure the nauseating bitter taste. In every case of pertussis there is an abnormal secretion of a thick tenacious mucus from the mucous membrane of the pharynx (whether due to simple, catarrhal or reflex hyperemia or to fungoid development, matters not) which may or may not excite a paroxysm of whooping, but which certainly aggravates and prolongs the latter, as may be proved by the fact that the paroxysms invariably cease the moment this mucus is removed, either by coughing, by vomiting or by the finger. The effect of a small amount of a solution of quinine, when taken into the mouth and swallowed, is instantly, from its bitter and nauseating taste, to excite a free secretion of thin mucus from the buccal mucous membrane and the salivary glands, and this softens and renders easy of dislodgment the tenacious mucus referred to. The frequent repetition of the quinine keeps up this free secretion, and thus prevents the mucus from becoming tenacious and difficult of dislodgement. At each act of coughing, therefore, the accumulated mucus is readily loosened and expectorated, and unobstructed inspiration is obtained. The rapid loosening of the cough, the briefness of the attacks in comparison with
those previous to the administration of the quinine, and the easy ex-
pectoration certainly tend to favor the correctness of the above theory.

The author was induced to test the value of this new remedy for
whooping cough, after having read a paper on "The use of Quinine in
the Diseases of Children," by Professor Binz, of the University of
Bonn, Germany, contributed by him to the above journal (Vol. iii.,
No. 1, May, 1870). The following rules are given as essential for suc-
cess in this treatment of pertussis:

1. Give the quinine (sulphate or hydrochlorate), dissolved by acid
in pure water only. For children under three years, from five to eight
grains, and for older children and adults, from ten to twelve grains to
the ounce.

2. Give not less than one teaspoonful every single, or at the longest,
every two hours during the day, and whenever cough comes on in the
night.

3. Give nothing afterwards for some minutes to destroy the taste or
to wash out the mouth.

4. Continue giving it notwithstanding the first doses may be
vomited.

5. Be sure that the quinine is pure and thoroughly dissolved.

On Vomiting of Habit. HENRY M. TUCKWELL, M.D., F. R. C. P,
Physician to the Radcliffe Infirmary, Oxford.—Medical Times and
Gazette.

The class of cases to which attention is here drawn would ordinarily
be grouped under the head of hysterical vomiting, but this term is
discarded by the author as inappropriate, because, in the first place;
this particular kind of vomiting is met with in boys; secondly, it oc-
curs in girls before the age of menstruation; thirdly, it yields to the
same kind of treatment in both cases alike. Although in certain in-
stances it may at the outset originate in some really morbid condition
of the stomach or liver, yet it is afterwards perpetuated simply by
force of habit, long after the exciting cause has gone and left no traces;
while at other times it seems to begin without any assignable cause
and to be continued as a habit for months or even years. The subjects
of this bad habit are as a rule young; of either sex; of what is called
a nervous temperament; quick and clever, but irresolute; often de-
scended from parents in whom some neurosis or some imperfection in
mental capacity has already manifested itself. Their condition is on
the border-land of that of the adult malingerer, differing, however, in
this respect, that they are sometimes reduced by the habit to a serious
state of weakness and ill health, and that the vomiting from long con-
tinuance becomes rather an automatic than a voluntary act.

Their mental status has been well described by Dr. West in his in-
teresting chapter on "mental peculiarities in childhood," in which will
be found some instructive illustrations of this quasi-malingering in
children. They go through their performances in various ways. One
child will find it necessary, directly after food has been taken, to run
to the water-closet, when the surroundings seem at once to give the
stomach the necessary hint. To another, the mere sight of a basin
after meals is sufficient to excite the act. A third, too weak to get
out of bed, will raise himself into a particular posture and begin to
vomit whatever food has been taken. The stomach has no time given
it for discharging its proper functions, but the food is brought up as soon as it is swallowed. There is also no indication of pain or even of the discomfort which ordinarily precedes the sickness of a diseased stomach, while the regularity with which the act takes place after food, together with the absence of all cerebral symptoms, enables one to distinguish this kind of vomiting from the irregular vomiting of cerebral disease. In the treatment of these cases all medicines fail; even the carefully restricted diet which would be advantageous in chronic vomiting from diseased stomach proves quite unavailing. Small spoonsful of milk and lime water, which would be retained by a person with ulcer or cancer of the stomach, are no sooner taken than they are rejected.

The first thing to be done is to separate the child from its parents, and to give a fresh coloring to its daily impressions by means of new faces and new influences. Next, the child must be watched, and notice strictly taken of the way in which it sets about vomiting, so that one may be enabled, with the help of a kind and firm nurse, to suddenly interrupt the usual performance and so break in upon the habit. The author reports several cases, when a genuine cure was effected in this way, after weeks or months of medical treatment had failed, and where even the discipline of a hospital and the most rigorous diet had been unable to break the spell.


This is the history of an important case. A child was born at the eighth month of gestation. It was fed with a bottle first, then by a wet-nurse. During the first month, it gained but little in size; under the suckling with the nurse, it increased considerably in size and weight; at this time it was noticed that the child had become hyperaesthetic, and then had convulsions, very severe and very frequent. No cause could be assigned to this affection, which baffled treatment, until, on further inquiry, it was found that the wet-nurse was in the habit of indulging in drinks of a wine very rich in alcohol. From the time the wine was cut off, the child, after a week, was completely cured, as the convulsions kept decreasing both in number and severity every day up to the seventh, when it was allowed to suckle again, as it was supposed that after this lapse of time, alcohol must have been thoroughly eliminated from the organism of the wet-nurse.—Lyon Médical, 24th Nov., 1872.

COMMUNICATION OF APHTHILE EPIZOOTICÆ TO HUMAN BEINGS.—This malady has prevailed extensively among the animals in the canton of Fribourg, and in two instances have come under the observation of Dr. Clerc in which it was communicated to human beings. In one of these cases, a young girl presented symptoms of coryza and aphthous stomatitis, while the terminal phalanges of both hands and feet were swollen. A suppurative process was, moreover, established around the nails, causing considerable suffering for a number of weeks.—Revue Scientifique.
Reports of Medical Societies.

THE AMERICAN OTOLOGICAL SOCIETY. J. ORNE GREEN, M.D., SEC'y.

The sixth annual meeting of the Society was held at Rice's Rooms, Newport, R. I., on July 16th, 1873, at 10 1-2 o'clock, A.M., the President, Dr. Henry D. Noyes, in the chair. Seventeen members present.

The President appointed Drs. Pomeroy, Strawbridge and Sexton as the Executive Committee.

Notice was given of a proposed amendment to the By-laws, by striking out the paragraphs referring to the corresponding secretary, thereby doing away with the office: and also, to change the rule for the meeting, so that it should read "meeting annually at such time and place as may be determined upon each year."

The Treasurer's report was read, audited and accepted.

The Executive Committee nominated as members of the Society, Drs. C. J. Kipp of Newark, N. J., William Thomson of Philadelphia, David Webster of New York; all of whom were elected, and Drs. Kipp and Thomson took their seats as members.

The following bulletin of papers was submitted by the Executive Committee, read in order and referred to the Publishing Committee:

- Report on the Progress of Otology, Dr. Burnett.
- Report of three cases, Dr. Buck.
- Tenotomy, Musc. Tensor Tympani, Dr. J. Orne Green.
- Therapeutic Value of Tenotomy of the Musc. Tensor Tympani, Dr. Bertholet.
- Cases illustrating the effects of Paracentesis of the Membrana Tympani, Dr. O. D. Pomeroy.
- Tympanic Trephine, Dr. Burnett.
- Ulceration of the Dermoid Layer of the Membrana Tympani, Dr. J. Orne Green.
- A case of hardness of hearing for low tones, Dr. Burnett.
- A peculiar manifestation of the paradoxical formula in the application of the constant electric current to the right ear, Dr. Burnett.
- Reaction of the auditory nerve under the galvanic current, Dr. Blake.
- Diagnostic value of high musical tones, Dr. Blake.
- Case of deformity of the auricle, the result of inflammation, Dr. Roosa.
- Deafness, in consequence of epidemic cerebrospinal meningitis, Dr. Knapp.

The thanks of the Society were voted to Dr. Burnett for his elaborate and faithful Report on Otology.

At 2 1-2 o'clock, after the reading of the fourth paper, the Society adjourned to 4 o'clock.

SECOND SESSION.

The Society was called to order at 4 o'clock by the President, and the minutes of the first session read and approved. The reading of the papers was then continued till 5 1-4 o'clock, when, after hearing the ninth paper, the Society adjourned.
THIRD SESSION.

The third session was opened by the President at 7 3-4 o'clock, and the two amendments to the By-Laws proposed at the first session were adopted.

It was voted that one hundred extra copies of the Report on Otology be furnished by the Society to the author of that paper.

The reading and discussion of the papers was then concluded.

The Executive Committee reported the following list of officers for the ensuing year, all of whom were elected:

President—D. B. St. John Roosa, M.D.
Vice-President—Clarence J. Blake, M.D.
Secretary—J. Orne Green, M.D.
Publishing Committee—J. Orne Green, M.D., Charles E. Hackley, M.D., R. F. Weir, M.D.
Committee on Progress of Otology—Charles H. Burnett, M.D., Clarence J. Blake, M.D.

The same rules in regard to papers, proofs and adjournment as last year, were adopted, Oct. 1st being the last day for the reception of articles for publication.

A communication was received from Drs. Blake, Roosa and Pomeroy in regard to an International Otological Congress, and on motion of Dr. Roosa it was resolved, 'that a committee of three be appointed by the chair, who shall report at the next meeting of this Society, as to the feasibility of holding an International Otological Congress in New York in 1876.'

The President appointed as such committee Drs. Roosa, Blake and Knapp.

The minutes of the second and third sessions were read and approved, and the Society adjourned at 9 3-4 o'clock.

 Bibliographical Notices.

Annual Report of the Superintendent and Physician of the New York State Inebriate Asylum, Binghampton, N.Y., for the year 1872.

This report is largely taken up with the consideration of inebriety as it appears in those who have lost all self-control in the use of alcoholic beverages. It is assumed, 1st., that "Intemperance is a disease." 2d, that "Its primary cause is a constitutional susceptibility to the alcoholic impression." 3d, that "This constitutional tendency may be inherited or acquired." 4th, that "It is curable in the same sense that other diseases are." In other words that, as a disease, inebriety has its cause, diagnosis, prognosis and treatment as clearly marked and as well defined as are those pertaining to other diseases.

To support these propositions, the report cites at considerable length the opinions of Drs. Christison, Rush, Woodward, Parker, Flint, Anstie, Druitt and other recognized authorities of this country and Great Britain, and claims that "the fact that the inebriate is suffering from an actual disease which deprivess him of the power of self-control should forever do away with the supposed disgrace and mortification attendant upon such a condition; and there should be no more social
disgrace in seeking a cure for this malady, than there is in being taken to an hospital for the treatment of a fractured limb.”

As to the time required, the report advocates that patients should, as a rule, remain at least six months under treatment.

Several have become inmates of the institution who were addicted to the excessive and habitual use of opium. In the treatment of such cases, the “weaning process” is advocated, “letting the patient down by degrees with comparatively little suffering.”

The number of patients admitted during the year was 249; discharged 253; remaining at the close of the year 81.


We learn from this report the nature of the onerous and valuable duties rendered the State during the past year by its able Surgeon-General, Dr. William J. Dale. The most important of these duties relate to the settlement of the claims and pensions of veteran soldiers, or to the families of soldiers, who have suffered by the circumstances of our late civil war. To the majority of this class, direct pecuniary aid is bestowed by the Government; others are assisted in obtaining employment, and thus enabled to earn an independent livelihood; while a third class, whose disabilities prevent them from working, are forwarded to some one of our national homes.

The late attack upon the department of which Dr. Dale is the head, by the Homeopaths, lends additional interest to this report, and the manner in which he acquitted himself under these circumstances, was, indeed, eminently calculated to sustain the dignity of the profession.

The record of General Dale is a long and honorable one, while his services to the State have been, and still are, invaluable. That these services cannot yet be dispensed with, without inflicting more or less suffering upon those who deserve well of the country, will, we think, be the honest conviction of all who will take the trouble to give this report even a hasty perusal.


The author of this work thinks that “perhaps none will dispute that it will prove of great service” to various classes of people, among them physicians, and be “an aid to the study of the U.S. Dispensatory.”

A brief comparison, however, with the latter work will show that the dictionary is but little more convenient than the Dispensatory with its Index, and the amount of information is of course vastly less and is often erroneous. The range of the first part or dictionary, properly speaking, is more extensive only in a few and unimportant particulars.

Sintoc, Siritch and Zopissa are in the dictionary and not in the Dispensatory, but the valuable information given in regard to these substances is hardly sufficient to balance the really ingenious deficiencies in more important matters, botanical, chemical, and especially pharmaceutical.
Under cinchona, for instance, a large number of species are mentioned without a hint of their relative value or geographical distribution; and among them are included C. flava, C. rubra, and C. pallida, which are not botanical species at all, but pharmaceutical designations of different varieties of bark. Although apparently endeavoring in a confused way to recognize the fact that many allied species have been separated from the true genus Cinchona, he does not state that they are therapeutically and pharmaceutically as well as botanically distinct, since they contain none of the alkaloids.

"Sus scrofa," which is the scientific designation of the common hog (the "whole hog," in fact,) is by our author restricted to his pancreatic juice made into an emulsion with beef-fat.

Schuylkill water is said to be a "good water," &c., but the name of the city to which it is supplied is not stated. Croton is "a New York water," but for all the dictionary says it might be a medicinal spring in the Adirondacks. Cochituate is not honored with a mention. The value of the book to physicians may be judged of by the statements that a catheter is "also a bougie made of silver or elastic gum," and that "adiaphorous" means "a medicine that does neither harm nor good. It is a question whether there are such medicines." There are those who consider such medicines among the most useful in the materia medica. A strictly confidential conversation with certain late members of Massachusetts Medical Society might relieve the author's mind of doubt on this point.

The various tables, collections of prescriptions, &c., at the end of the book, are of more or less value according to the sources from which they are bodily taken. The lists from the Pharmacopoeia of 1873 are placed there apparently to avoid the trouble of revising the text in accordance therewith. The arrangement of poisons is worthy of note. Hemlock, foxglove and ergot are put under a common head with belladonna, and woorara with strychnia.

Lactuca is mentioned among narcotic poisons. Stillé states that there is no record of poisoning by this drug or any approach thereto.

With much care devoted to pharmacy, botany and chemistry, and the omission of medical information, which must be very meagre, and probably will be erroneous, another edition of this work may become more nearly like what the author intended the present one to be.

On Strictures of the Urethra. Results of Operation with the dilating Urethrotome, with Cases. By F. N. Ors, M.D. Pp. 20. (Re-printed from the New York Medical Journal.)

Dr. Ors's paper strikes us as well worthy of re-publication. Though short, it is very suggestive of the progress which urethral surgery has made in the last ten years. The whole subject of stricture is an obscure one, concerning which there is still something to be learned; but the progress made of late is very cheering. For the account of the cases and the description of Dr. Otis's instrument, we refer the reader to the original paper, and notice only the conclusions which he has drawn. He believes "that a very considerable number of cases of chronic urethral discharges are dependent upon the presence and influence of comparatively slight contractions of the urethral calibre," and shows that these contractions may permit the passage
of a full-sized sound, even while causing considerable trouble. The author also believes that cicatricial tissue may be absorbed after being completely divided, which, if it be found to be the ordinary result, is certainly of great importance. The value of the bulb-pointed sound in the diagnosis of stricture is strongly and properly insisted on, as its withdrawal, particularly after a short pause, is often arrested by slight bands which are not recognized as the instrument enters, and which, consequently, an ordinary sound would never show. We are quite of the author's opinion that multiple strictures in the same urethra will be considered less rare when this instrument is more generally used.

BOOKS AND PAMPHLETS RECEIVED.


Professor Schüppel, of Tübingen, has been making experiments to ascertain the appearances caused by hanging, followed by burning. The results are different when the cord is left round the neck of the victim from those when it is removed. If, in the latter case, the body be burned till the surface is charred, the marks will have disappeared, but if the cord be left tightly drawn the depression will be perfectly clear. This is of great importance, as arson is often committed to hide murder.
The Wagner trial has, according to the detailed report in the *Maine Democrat*, furnished additional evidence of the need of a thorough reform in the methods of obtaining expert testimony in our criminal trials. Here, as in the Alley trial, self-qualified experts were summoned by the opposing counsel and made to contradict each other on the witness stand; and the daily papers have, as usual, indulged in sage remarks on the uncertainty of scientific testimony. The facts in the case were briefly these:—Certain stains had been found on the clothing of the accused, which the government undertook to show were blood-stains, and, moreover, not produced by fish-blood. For this purpose, an expert witness was introduced who entered into a lengthy description of the histology and chemistry of the blood, in the course of which he denied to the white blood globules all importance in the animal economy, except in so far as they might be changed into red globules, and described the red globules as closed sacks containing fluid. In justice to this gentleman, however, it must be said that, in those parts of his testimony which had a direct bearing on the case at issue, his statements seem to have been clear, straightforward, and (making due allowance for errors of reporters), in the main, correct. His testimony was to the effect that, after the blood-stains had been soaked in a fluid of a suitable specific gravity, circular globules made their appearance, which, by micrometrical measurement and by direct comparison, were found to closely resemble the human blood-disc.

The defence, having failed, in the cross-examination, to weaken the force of this testimony, introduced a chemist, who gave it as his opinion that the government witness had "testified to an impossibility," though the imperfection of the report leaves it a little doubtful to what this phrase refers. He then went on to deny the possibility of distinguishing human blood-stains from those produced by the blood of other mammalia, and asserted that even the oval and nucleated blood-globule of fishes might be mistaken for the human blood-disc, acknowledging, however, that "in fish blood there would always be many corpuscles which could not be mistaken." These statements seem to have been made, not as the result of careful observations and measurements by the witness himself, which alone could have given value to his testimony, but from the examination of photographs of blood-corpuscles and the writings of various authors, whose names, though excluded by the court, are, nevertheless, given in the news-
paper report of the trial, and who are by no means so unanimous in their opinion on this subject as the witness would have us believe.

Thus, we have another instance of the impossibility of getting at the truth by our present methods of obtaining expert testimony in judicial investigations. The case occurred, it is true, in another Commonwealth, but the same system prevails in Massachusetts, and has led, and will continue to lead, to similar disgraceful results.

That the responsibility for this shameful condition of things does not rest with medical or scientific men, but with the government and the courts, has been already pointed out in the pages of this Journal. The unsuccessful efforts of the medical profession to procure a reform have also been there recorded. Not discouraged by previous failures, a joint committee of two medical societies and of the American Academy of Arts and Sciences, has, within a few months, made another effort to procure legislation, providing better methods of obtaining expert testimony. A bill, drawn for this purpose by the Hon. Emory Washburn, was presented to the judiciary committee, which had been specially ordered by the House of Representatives to consider the expediency of such legislation. The result was simply a report of "inexpedient."

A reform in this matter can only be brought about by the united efforts of the medical and legal professions; and, until lawyers feel, as keenly as medical men feel, all the disgrace which is brought upon the Commonwealth by such scenes as occurred in the Alley and Wagner trials, the efforts of physicians to effect a change in the law which regulates such matters can scarcely be crowned with success.

It certainly seems inexcusable that such a nuisance as that at Miller's River should not only continue during a greater part of the summer, but should ever have been allowed to exist at all. It appeared early in the season, in spite of the report of the joint committee of the Harbor Commissioners and State Board of Health, made to the cities of Cambridge and Somerville last December, containing a complete investigation of the nuisance, what caused it and how it could be cured; and it has continued, increasing rather than decreasing, in spite of the strongest remonstrances of the press and public generally. In the mean time, the cholera continues on its course, and is slowly and steadily making its way towards this part of the country. It is very much to be regretted that the excellent work of our city Board of Health should be well nigh set at nought by such a pestilence breeder as this. If the local authorities are either unable or unwilling to carry out suggestions coming from such unquestionably high authority, why does not the State government interfere and put the work at once into proper hands?
Apropos of the cholera, we cannot too strongly condemn the practice of sending sensational reports to the papers, as has been done both in this city and in New York during the past week. There was but one of these cases about which there could be any question whatever, the others being evidently not Asiatic cholera. Apart from the false light in which a physician places himself by such an error as this, we hardly need mention the unnecessary fear caused among a people already afflicted with two epidemics during the past year.

THE RELATION OF THE PULSE TO THE CONDITION OF THE STOMACH.—
(Medical Times and Gazette, May 10, 1873.) Important observations have recently been made by Mayer and Pribram on the reflex relations of the stomach to the centres of innervation for the circulation. The previous experiments of Goltz showed, what has ever since been accepted, that irritation of the wall of the stomach reduces the frequency of the pulse. The present experiments have determined that this slowing is accompanied by a rise in the arterial blood-pressure; and that the same result is obtained whether the irritation applied to the gastric wall is electrical or mechanical—for example, pinching the stomach with a forceps; the rise in the blood-pressure is plainly reflex in its causation, from contraction of the smaller or peripheral arteries. Similar results were obtained by inserting a bladder in the stomach and inflating it. On the other hand, the application of cold to the stomach, either by means of iced water or ice itself, yielded no positive result, provided mechanical irritation was carefully avoided. Further experiments seemed to refer the effect on the circulation to irritation of the serous and muscular coats of the stomach, while irritation of the mucous membrane only did not evidently affect the pulse. These results may help to explain the sudden death which is frequently seen in severe injuries to the stomach. The experimenters point out that the opinion of Guy is also in agreement with the results at which they have arrived—that the frequency of the pulse falls under vegetable diet.

Correspondence.


MESSRS. EDITORS,—In accordance with my promise, I proceed to give you such facts as I have been able to gather with reference to the recent epidemic of cholera in Tennessee. The most important facts have been received from Nashville, and I am especially indebted to Col. W. D. Gale, for files of the daily papers.

We gather from the Republican Banner, of July 10th, that at a meeting of the Nashville Medical Society, held on the night of the 8th inst., the late epidemic was freely discussed. "It was the unanimous opinion of all present, that the disease was nothing more nor less than Asiatic cholera. It was most emphatically denied that it arose here from local causes. Its course had been clearly defined. It had passed from Rio Janeiro to New Orleans, from New Orleans to Memphis, and from Memphis to Nashville. It had
been brought here from the two last named places. It was greatly aggra-
vated by the use of stale, decaying and rotten vegetables, sent here from the
south. All were of opinion that it had spent its force in Tennessee.

According to the Nashville Union and American, there were a few cases of
cholera in Nashville during the last week in May and the first week in
June, of which there is no record.

The record of deaths, given by the Union and American, begins with the
7th of June, and shows the daily mortality from the pestilence to be as
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In addition to these, a considerable number of negroes died in the suburbs,
and were buried in vacant lots near the city, by parties of their own color,
without applying to the regular undertakers. Fifty-three are said to have
been thus buried in one place, not more than a fourth of whom procured
coffins from the undertakers. The cases thus occurring of which no account
is had, added to those who died previous to the 7th of June, it is thought,
will bring the number fully up to 750, thus showing that the mortality of this
year has been fully equal in number to that of 1866, while the death-rate
according to population has been considerably larger. Thus we find that
from the 7th to the 30th of September, in that year, both days inclusive, the
number who died from cholera was 659. It is also probable that a greater
number were attacked this year who recovered, than in 1866. The disease
has followed the old cholera track in its former visits to this city, and its
greatest mortality has been in the belt in which the largest mortality result-
ated from previous visits, showing conclusively that there must be something
local which invites this pestilence to revel in the lower portions of the city,
where the water is unquestionably bad, and the sewerage of such inferior
character as scarcely to deserve the name.

The following article appeared in the Nashville Union and American of
June 29th:

**SOME FACTS ABOUT CHOLERA IN NASHVILLE.**

"In August, 1867, Dr. Joseph Jones, then at the head of the Board of
Health, submitted to that body an elaborate report on the health and sanita-
ty condition of Nashville, from which we learn many interesting facts
which will be of peculiar interest just now. Of the summer succeeding the
terrible cholera visitation of 1866, Dr. Jones says:

"The kindling of the embers of the cholera in several of the cities and
towns of the Mississippi valley, has kept the minds of many in an excited
and anxious state. During the quarter ending July 31st, no increase in the
death rate from local affections has been noted, but there has been on the
contrary, a most encouraging exemption from this class of diseases.

"Dr. Jones prepared after great trouble and research a table, which shows
the total number of deaths in each year, from 1822 to 1866, and the table
shows the number of deaths in each month of the year, from 1828. There
are also tables showing the death rates, and the per cent. of deaths to the
inhabitants of the city.

"It would appear from these statistics that the death-rate of Nashville
has increased with the growth of the city. This increase in the death-rate of the city appears to be due to several causes, but chiefly to the progressive crowding of the houses along the narrow streets; the filling up of the lowlands along Lick Branch and Wilson’s Spring Branch, with offal and filth of every kind; the extension of the city along and over the low grounds; the absence of all parks for exercise and pleasure, and the absence of any regular system of sewerage and drainage. The causes of disease have increased with the crowding of houses within limited areas, and the concurrent multiplication of filth, and improperly drained and policed alleys. **

“The death-rate of Nashville, in comparison with that of many other cities, has been without doubt both relatively and actually increased by the ravages of imported and exotic pestilence. Cholera caused nearly one tenth of all the deaths recorded in the city of Nashville, from 1821 to 1867, or more accurately during this period 20,248 deaths and burials were recorded, and of this number Asiatic cholera directly caused 1,813; and if we add to this the deaths really caused by this pestilence, but recorded as cholera infantum and diarrhoea, the number would exceed 2,000 and perhaps reach near 3,000. Up to the last epidemic of Asiatic cholera the heaviest mortality has fallen in the months of May, June and July. In former epidemics the rise and progress of the disease appeared to be connected, in a measure, with the increased, maximum and decline of solar heat, during the hottest months of the year; and from such facts it would have been unreasonable to draw the conclusion, that the probabilities of a cholera epidemic were diminished daily; but the epidemic of 1866 reversed the former order of things. The cholera appeared the last day of August, reached its maximum in September (670 deaths occurring in this single month), and rapidly declined and disappeared entirely in October. A careful consideration of these facts leads to the belief that while the spread of the disease may be greatly promoted by the external temperature, at the same time, the appearance and spread of the disease is intimately associated with, if not absolutely dependent upon the time of its importation, and the hygienic condition of the city at the time of its introduction.

“The recent civil war has left the city of Nashville a most dangerous inheritance, in the numerous small wooden houses and shanties huddled together in the environs of the city, without system, without regular streets, and without any facilities for the enforcement of hygienic regulations. There gangrenous belts which encircle the business portion of the city with their crowded and oftentimes destitute inhabitants, form a most favorable field for the lodgment and spread of such diseases as smallpox and cholera. It is difficult if not impossible to devise any efficient measures for the arrest of contagious diseases amongst the inhabitants of these small wooden huts, which in almost every case are wholly deficient in ventilation, and crowded with old bedding, clothes and rags. ** As the case now stands, cholera might appear and prevail amongst the poor and destitute and distressed inhabitants of Nashville, for days before its presence might even be suspected.

“The chief source of danger in the future, as was clearly demonstrated by the experience of the past epidemic, will be from the over-crowded and filthy portion of the city.”

From a letter of an old citizen of Nashville, bearing date of June 30th, and headed “Cholera in the Olden Time,” we extract the following interesting facts:—

“I believe the first, and perhaps most fatal malady we have ever had, occurred early in the year 1816. Nashville at that time was a mere village. It was called the ‘epidemic’ or ‘cold plague.’ Great numbers died. Whole families were swept off by the disease. **

“The next epidemic was cholera, which made its first appearance here in the fall of 1832. An old gentleman died in August or September, and his death was attributed at that time by the physicians to cholera; but no other case occurring for some time afterwards, they doubted the correctness of their opinion on the subject. The first unmistakable case occurred in
November—that of Mr. Hazel, a cabinet maker, and a much respected man. After his death, there were cases occurring more or less frequently throughout the following winter and spring. Dr. James Roane died in February, 1833. * * * Towards the close of May, and thence to the middle or latter part of June, it raged with great violence. The penitentiary had at that time but few convicts; yet the deaths there from cholera numbered about seventy. The most unaccountable freak of cholera during its visitation that year, occurred at Shelbyville, Tenn. Towards the latter part of June, or early in July, after its subsidence in Nashville, it rushed on that place in the night, with the rapidity and violence of a tornado. There had been no appearance of disease of any kind whatever, and the inhabitants of Shelbyville, on Friday night, retired to rest in apparent good health, but before daylight that morning, many were dead and dying! A panic and stampede was the result, and many died in the country, and some on the road-side, soon after fleeing from town. Out of a population of 600 or 700, about 115 died. The cause that produced this sudden and dreadful scourge in the town, has never been, and probably never will be satisfactorily explained. 'It is past finding out.'

"If I remember aright the town of Hannibal in the upper Mississippi had a similar visitation from cholera in 1832 or 1833. There, too, it came on like a clap of thunder out of a cloudless sky, without premonitory symptoms or warning of any kind; and I think attended with much greater fatality than in Shelbyville."

During the present epidemic, June and July, 1873, cholera has made its appearance and prevailed with various degrees of severity in Greenville, Chattanooga, Shelbyville, White Bluff, Waverley, Knoxville, Murfreesboro', Lebanon, Springfield, and other small towns and villages in Tennessee. The disease continues to prevail also in several of the parishes of Louisiana, bordering on the Mississippi.

There can therefore be no longer any doubt as to the nature of the so-called "CHOLERA SPORADICA" of New Orleans in 1873.

Respectfully,

JOSEPH JONES, M.D.

MESSRS. EDITORS,—Your words in the last JOURNAL are so timely, that they must not be passed over without remark. "A large appropriation" could not be better expended than in watering the streets. In fact it would be an economical outlay in many respects—in one especially which ought to carry weight with officials—the cost of repairs of watered streets would be materially reduced. On this subject, however, the suggestions of this JOURNAL, last summer, are so true and so applicable, that they should be repeatedly placed before those in authority, and the community also, who would be greatly benefited by their adoption:

"Every man, woman and child, that walks or drives through a dusty street, or whose dwelling borders upon one, is constantly inhaling a pulverized compound of granite and dust, disgusting in itself, and in its consequences fearful to contemplate. Furthermore, any one who will give attention to the subject, will soon perceive that in the wear of the streets themselves, of the vehicles drawn over them, and of the clothing of those who walk through them, there are tangible consequent damages of greater cost to the community than the amount of taxes required for thorough watering, which would save all this expensive wear and tear, in addition to the healthiness promoted by it."

Add, also, the great damage done to the eyes, from the glare of the hot streets—the headaches thus caused—the diseases engendered thereby—the moral effects of the unnecessary language uttered by passers as they receive gusts of filth, and you have, Messrs. Editors, a strong case for the Health Commissioners, to say nothing of the necessity for the "benefit of clergy." Pray induce those having the power to mitigate the sufferings of the people, the whole people, by a daily sprinkling of the STREETS.
Dr. Bazin, the well known professor of Dermatology at the Hospital of
St. Louis, was recently made an Officer of the Legion of Honor on retiring
from his hospital office.

Illness of Nelaton.—We regret to hear from our correspondent in
Paris, that Dr. Nelaton, the celebrated surgeon, is lying so dangerously ill
that little or no hope can be entertained of his recovery. He has been for
some time suffering from cardiac affection.—Medical Times and Gazette.

The Medical Evidence in the Tichborne Trial, shows the
treatment of twenty years ago to be decidedly heroic in its character. Bleed-
ing from the arm, the ankle and the temporal artery, were evidently freely
resorted to, and the issue was the most common form of counter-irritation.

We are glad to note that the genial Dr. Druitt has been made the recipient
of a very handsome testimonial in the shape of a silver cup and a balance of
£1,284. Dr. Druitt, so well known in Canada by his popular text-book on
Surgery, is travelling in India for the benefit of his health.—Canadian Med.
Times.

Dr. Edward Warren, late professor of Surgery in the College of Phy-
sicians and Surgeons, Baltimore, Md., and most favorably known to the pro-
fession by reason of his testimony in the celebrated Wharton-Ketchum trial,
has accepted the position of "Surgeon to the Staff of the Khedive of Egypt,"
with the rank of colonel, and the privilege of engaging in private practice in
that country.—Canadian Medical Times.

The Imparziale, of Florence, mentions that the embalming of the illustrious
poet Manzoni was performed by the municipal doctors, by means of injec-
tions and washes with a hydro-alcoholic solution of chloride of zinc, and was
eminently successful, thus affording the seventy thousand people who visited
the remains of the poet the satisfaction of witnessing again his sympathetic
countenance.

Professor Erichsen.—It is a matter of general regret, that Mr. Erich-
sen's state of health has been for some time such as to cause anxiety to his
numerous professional friends. Mr. Erichsen was, we understand, somewhat
out of health during the winter, and early in the spring he unfortunately
wounded his finger, and had lymphatic inflammation with probably some de-
gree of blood-poisoning. This completely prostrated him for the time, but
he is now, we are glad to hear, considerably improved, though in the opinion
of his colleagues, Sir William Jenner and Sir H. Thompson, it will be some
time before he can resume his professional labors.

How to Use Up Useless Dogs and Cats.—Only fancy, dear Mr.
Scotsman, our feelings this morning, when me and the cat were reading you,
and came to this under your title of "Specific Articles Wanted":—

Dogs and Cats (few useless) wanted. Any kind of breed will suit. Apply
at the Physiological Laboratory, University, between 10 and 11 A.M.

"What's the meaning of that?" says the cat to me. "The meaning," says
I to the cat, "is that some philosophers (for I am a doctor's dog) want to
find out all about our reflex actions and our ganglionic systems, to snip out
neat little bits from our nerves and brains, and give us nice little shocks from
batteries, and nice little doses of the Calabar bean, and nice little antidotes,
and put all about how we behave ourselves into a book, and dissect us nicely
afterwards—isn't this nice, pussy?"

Is it seemly or kind, is what it is due to us, to put in this horribly suggest-
ive advertisement? If we dogs were uppermost, and were young doctors of
an inquiring turn, how would you men like to see an advertisement in the
Canine Tooth of the day—"Men and Women and Children (few useless)"—isn't this, by-the-by, bad grammar or nonsense?—"any kind of breed, &c." Would you not feel insulted? And how would you like, even under chloroform, to have your reflex actions inquired into, and your hippocampi minores tickled with a knife, and your spinal marrow tampered with? Dogs and cats have "feelin's" as well as you. Yours truly and growlingly. Bon.

P. S.—My master has just come down to breakfast, and is reading it. He says, "Bob, if it's a joke, it's a very poor one; if not, it's worse. I'll let them know at the Physiological Laboratory, that the eye of the Society for the Prevention of Cruelty to Animals, and the eye, too, of Capt. John Cumming, 17 Drummond Street, is upon them."

I and my master, and Sir Charles Bell, and the late Professor Syme, have our own views as to the question of vivisection; but I only speak now of an outrage and insult to me and the cat.—Edinburgh Scotsman.

NOTES AND QUERIES.

' The Rev. Laurence Sterne,' the genial author of Tristram Shandy, did not much like the therapeutics of his day, and would have rejoiced at the motto—natura dux—of the Massachusetts Medical Society. He thus speaks of his treatment at the hands of the big-wigs of the last century:—"I fell ill of an epidemic vile fever, which killed hundreds about me. The physicians here are the errantest charlatans in Europe, or the most ignorant of all pretending fools. I withdrew what was left of me out of their hands and recommended myself entirely to Dame Nature. She (gentle goddess) has saved me in fifty different pinching bouts, and I begin to have a kind of enthusiasm now in her favor, and in my own, that one or two more escapes will make me believe I shall leave you all at last by translation, and not by fair death."

Judging by the following prescription, he had a fair right to rail:—"My physicians have almost poisoned me with what they call bouillons refraîchissants. 'Tis a cock flayed alive and boiled with poppy-seeds, then pounded in a mortar and afterwards passed through a sieve. There is to be one craw-fish in it, and I was gravely told it must be a male one; a female would do me more hurt than good."

ERRATA.—Page 75, last line, for "Fleurens" read Fleurens. Page 77, 15th and 19th lines from top, for "Bean" read Beau.

Died.—At Boston Highlands, 29th ult., John Hart, M.D., 49 years.—2d inst., L. R. Sheldon, M.D., 45 years 5 months.

MORTALITY IN MASSACHUSETTS.—Deaths in seventeen Cities and Towns for the week ending July 19, 1873.

Boston, 181; Charlestown, 31; Worcester, 27; Lowell, 30; Milford, 2; Chelsea, 16; Cambridge, 31; Salem, 18; Lawrence, 30; Springfield, 15; Lynn, 15; Fitchburg, 5; Newburyport, 6; Somerville, 8; Fall River, 21; Haverhill, 10; Holyoke, 18. Total, 478.

Prevalent Diseases.—Cholera infantum, 136; consumption, 57; dysentery and diarrhœa, 31; scarlet fever, 18; cholera morbus, 10.

Six deaths from smallpox occurred in Holyoke.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, August 2, 203. Males, 114; females, 91.

Accident, 5; apoplexy, 3; inflammation of the bowels, 2; disease of the bladder, 1; bronchitis, 3; inflammation of the brain, 1; disease of the brain, 6; cancer, 3; cholera infantum, 5; cholera morbus, 6; consumption, 14; convulsions, 3; exerbro-spinal meningitis, 3; delirium, 3; diarrhoea, 7; dropsy of the brain, 10; drowned, 2; dysentery, 5; scarlet fever, 11; typhoid fever, 8; stiella in ano, 1; gastritis, 1; disease of the hip, 2; disease of the heart, 6; imperforate rectum, 1; disease of the kidneys, 3; disease of the liver, 3; congestion of the lungs, 1; inflammation of the lungs, 5; marasmus, 6; measles, 2; old age, 4; paralysis, 1; premature birth, 1; perperal disease, 2; rheumatism, 1; sunstroke, 1; suicide, 1; tumor, 1; whooping cough, 2; unknown, 6.

Under 5 years of age, 112; between 5 and 20 years, 16; between 20 and 40 years, 31; between 40 and 60 years, 19; over 60 years, 20. Born in the United States, 158; Ireland, 39; other places, 13.
Original Communications.

CHILDREN'S DISEASES IN MASSACHUSETTS.

By J. O. Webster, M.D. Harv.

Read before the Massachusetts Medical Society, June 5th, 1873.

In selecting the subject of "Children's Diseases in Massachusetts," to bring before the Society at this time, I have been influenced by several considerations; chief among which are the importance of the diseases of children, the inadequate amount of attention that they have received, and the fearful infant mortality that prevails, especially in our larger cities.

The importance of children's diseases can hardly be over-estimated, concerning, as they do, those in whom the wealth of the community so largely consists, those upon whose soundness of body and of mind the hopes of the future so greatly depend.

The death of an individual, in or before the prime of life, inflicts a very considerable positive or prospective loss on the commonwealth. No other kind of loss would be borne with such equanimity, with so little attempt to discover and remedy its causes. The idea is too firmly fixed in the public mind that about such an amount of infant mortality is inevitable; an idea that receives much color from the mortality tables of various countries, but which we must regard as contrary to a sound philosophy. We would rather regard the death of a child as always an unnatural event, for which somebody, some where and at some time, has been to blame.

Children's diseases have not received and are not now receiving, from the profession at large, the attention that their importance demands. Without committing the absurdity of saying that they differ in nature from the diseases of adult life, we claim that they have such differences, in their course and symptoms, impressed upon them by the peculiarities of the infant constitution that they require to be studied almost from a point of view of their own; yet our medical schools are sadly deficient in professorships of children's diseases and in clinical advantages for their study, and their graduates are sent out with less knowledge of these than of any other affections they are likely to be called upon to treat. And although the literature of children's diseases is equal to that of any other branch of medicine, it is to be feared that there are too many physicians' libra-
ries in which no work, devoted to this subject, can be found, or only some venerable volume that has long outlived its usefulness.

The rate of infant mortality, especially in our larger cities, is a subject of the profoundest interest to the social scientist, the sanitarian and the physician, to all of whom our registration reports present abundant food for study and reflection. The examinations that I have made of these reports, in reference to infant mortality, cover the six years 1865 to 1870 inclusive, and the deaths in the first five years of life. From these data, except where otherwise stated, are derived whatever facts I shall present in regard to the infant mortality of Massachusetts.

Proportion of infant mortality to 1,000 of population, in Massachusetts, and in the eleven cities having now a population of over 20,000 each:

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Massachusetts</th>
<th>Eleven cities</th>
<th>Rest of State</th>
</tr>
</thead>
<tbody>
<tr>
<td>1865</td>
<td>1,000</td>
<td>7.15</td>
<td>6.12</td>
<td>6.19</td>
</tr>
<tr>
<td>1866</td>
<td>1,000</td>
<td>6.21</td>
<td>8.34</td>
<td>4.88</td>
</tr>
<tr>
<td>1867</td>
<td>1,000</td>
<td>6.27</td>
<td>8.89</td>
<td>4.79</td>
</tr>
<tr>
<td>1868</td>
<td>1,000</td>
<td>6.42</td>
<td>8.55</td>
<td>4.11</td>
</tr>
<tr>
<td>1869</td>
<td>1,000</td>
<td>6.32</td>
<td>8.41</td>
<td>5.15</td>
</tr>
<tr>
<td>1870</td>
<td>1,000</td>
<td>6.77</td>
<td>9.02</td>
<td>6.27</td>
</tr>
</tbody>
</table>

For the years referred to, we find the infant mortality in the State to average about 6 1/2 in 1,000 of population; the highest rate being 7 1/4 in 1865, when diphtheria and dysentery were both epidemic, the lowest 6 1/5 in 1866. Taking the eleven largest cities, those of 20,000 and upwards population, we find their rate 8 3/4 per 1,000, while for the remainder of the State it is reduced to 5 1/5.

Percentage of deaths, in the first five years of life, to births:

<table>
<thead>
<tr>
<th></th>
<th>1st year</th>
<th>2nd year</th>
<th>3rd year</th>
<th>4th year</th>
<th>5th year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Massachusetts (1865-70)</td>
<td>14.9</td>
<td>5.3</td>
<td>2.5</td>
<td>1.6</td>
<td>1.1</td>
</tr>
<tr>
<td>Eleven cities</td>
<td>18.7</td>
<td>6.3</td>
<td>2.9</td>
<td>1.9</td>
<td>1.3</td>
</tr>
<tr>
<td>Rest of State</td>
<td>13.3</td>
<td>4.3</td>
<td>2.2</td>
<td>1.4</td>
<td>1.0</td>
</tr>
<tr>
<td>England (Life table)</td>
<td>14.6</td>
<td>5.2</td>
<td>2.7</td>
<td>1.8</td>
<td>1.3</td>
</tr>
</tbody>
</table>

Looking at the subject from another point of view, we find that, of the children born alive in Massachusetts, about 15 per cent. die in the first year, 5 in the second, 2 1/2 in the third, 1 1/2 in the fourth, and 1 in the fifth, and that these figures are almost identical with those from the English Life Table. We also discover that, in the cities already referred to, 18 1/2 per cent. die in the first year, 6 4/5 in the second, 2 3/4 in the third, while for the fourth and fifth the mortality is only slightly in excess of that for the State at large.

We next purpose to glance at the causes of disease and mortality among the children of Massachusetts. We did intend to divide these causes into two classes, avoidable and unavoidable, but found so few that would strictly come under the latter head that we were forced to abandon the plan as impracticable. The arrangement that we have adopted is a natural one, taking up the causes in the order in which, beginning from his birth, a child would probably be exposed to their influence, as follows: congenital diseases and diatheses; residence; season; transgressions of sanitary laws, especially in regard to food, clothing, ventilation, exposure to improper temperatures and dosing; dentition; epidemic influences and infection.
CONGENITAL DISEASES AND DIATHESSES.

Congenital diseases proper do not occasion a very serious amount of mortality, but of congenital diatheses this is by no means true. Tubercular and scrofulous diseases are the occasion of over ten per cent. of the deaths under five. In regard to the syphilitic diathesis, we cannot present statistics to show the number of its victims, but we know that the feebleness of constitution of the children of syphilitic parents renders them an easy prey to the various diseases of the developmental period, besides making them peculiarly liable to those low forms of inflammation that are called "scrofula."

Under the head of diathesis, we also find it convenient to class inherited weakness of constitution. The deaths most obviously due to this cause are those classed as "infantile," which comprise 8 per cent. of our infant mortality; but a very large proportion of the deaths of young children are due to their constitutional feebleness which renders them unable to bear up under attacks of illness that are, in themselves, quite trivial.

Of no class of sins is it truer than of sins against the laws of health, that the iniquities of the parents are visited upon the children; and while so many parents habitually violate every hygienic precept, children will continue to be born only to die in infancy.

RESIDENCE.

We have already referred to the infant mortality of our cities, especially in the first two years of life, when we find it bears the relation to that in the remainder of the State of 3 to 2.

The reason of this undesirable preëminence may be easily arrived at by an examination of the "Analysis of the mortality of Boston in 1870," in the Report of the State Board of Health, 1871. The Health Districts in which the greatest infant mortality occurred were those crowded with tenements, full of nuisances, and inhabited by a class of people that are neglectful of the entire code of sanitary laws. Such localities, with such inhabitants, are found only in large cities. They help to swell the aggregate of mortality, and make the reputation of the whole city suffer; unjustly so, since the best districts in Boston have a remarkably low rate of infant mortality. Hence we conclude that residence in a city, other things being equal, is as healthy for children as in the country.

Whatever influence locality of residence has upon mortality appears to act in the same manner upon infants and adults, except that the former are more susceptible than the latter to unhealthy surroundings. If we arrange the counties of Massachusetts in the order of infant and of general mortality, for 1870, the two lists are identical with the single exception of Nantucket, where the former is very low and the latter high, from well known causes.

SEASON.

The influence of season upon infant disease and mortality is so
well known to all, that it would seem superfluous to indulge in any extended remarks upon this part of our subject; nevertheless, it will be interesting to glance briefly at the mortality tables from this point of view. Of the infant mortality of Massachusetts, about 20 per cent. occurs in the first quarter of the year, 20 in the second, 37 in the third, and 23 in the fourth. The high percentage in the summer months is due to the fact that intestinal diseases, the most important factors in our infant mortality, are those that are most influenced by season.

Mean Quarterly percentage of the Mortality from Cholera Infantum, Diarrhoea and Dysentery, and mean temperature, for six years, 1865-70.

<table>
<thead>
<tr>
<th></th>
<th>1st quarter.</th>
<th>2d quarter.</th>
<th>3d quarter.</th>
<th>4th quarter.</th>
<th>Total.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cholera Infantum, .</td>
<td>1.63</td>
<td>3.88</td>
<td>84.46</td>
<td>10.03</td>
<td>100</td>
</tr>
<tr>
<td>Diarrhoea, . . .</td>
<td>10.97</td>
<td>10.98</td>
<td>57.46</td>
<td>20.59</td>
<td>100</td>
</tr>
<tr>
<td>Dysentery, . . .</td>
<td>3.07</td>
<td>5.17</td>
<td>76.43</td>
<td>15.03</td>
<td>100</td>
</tr>
<tr>
<td>Mean temperature, F.</td>
<td>26.89</td>
<td>55.29</td>
<td>67.09</td>
<td>33.39</td>
<td>45.89</td>
</tr>
</tbody>
</table>

We find 84 per cent. of the deaths from cholera infantum, 57 per cent. from diarrhoea, and 76 per cent. from dysentery occurring in the 3d quarter.

The cold season, and the changeable weather of spring, are most fruitful in diseases of the respiratory system, about 60 per cent. of the mortality from pneumonia being from December to April, and the same proportion of that from croup, from November to March. Diphtheria has 40 per cent. of its mortality from October to January, but consumption destroys about an equal number of lives in every month of the year.

The fatality of the eruptive fevers appears to be affected by season, as 70 per cent. of the deaths from measles take place in the six months from March to August, and 65 per cent. of those from saramina in the six months from December to May.

TRANSGRESSIONS OF SANITARY LAWS.

To show how largely neglect of sanitary laws is responsible for infant mortality, it is only necessary to cite the case of those most conspicuous for their habitual violation of all such laws, our foreign population. For the four years, 1867-70, of all those dying in Massachusetts under the age of five years, 41.5 per cent. were of American and 58.5 per cent. of foreign parentage; while of the total mortality 55 per cent. were of American and only 45 of foreign parentage (Reg. Rep. 1870, p. 39).

In the Board of Health Report already referred to, we find that the infant mortality is very great in those parts of Boston inhabited by a class of people who are indifferent to the laws of health, being, in the worst districts, five times as great as in some peopled by the better class of Americans. We are inclined to attribute the variation in mortality of the districts almost entirely to the difference in regard to obeying sanitary laws. Natural advantages of location do not, by any means, rest with the healthiest districts.
FOOD.

Eighteen per cent. of our infant mortality occurs from diseases that can mostly be attributed to improper food. So many of our women are unable to nurse their children, and, even for those who can afford the expense, so difficult is it to procure the services of wet nurses, that artificial feeding has become probably the leading cause of the mortality among young infants. Artificial feeding is bad enough at the best, but we have all experienced how impossible it is, in most cases, to get the best method carried out. The community contains so many venerable females who know so much more than the doctors about feeding babies, who are so ready with advice on the subject, whether asked or not, and who are so absolutely certain that their way is right and any other leads to certain destruction, that no wonder young mothers give more weight to their experience than to our views, which they are apt to consider rather theoretical than practical. Consequently the poor babies are starved on arrow-root and other indigestible substances and die of marasmus or cholera.

But infants sometimes perish from improper food when fed solely from the breast. Many women, either from delicacy of constitution, from poverty and hardships, or from disease or intemperance, secrete a lacteal fluid insufficient in quantity or deleterious in quality, and their babies die of inanition or disease.

For older children the case is still worse if possible. How often, when called to attend a child, perhaps only in his second year, on asking what he is in the habit of eating, it happens to us to be answered, "oh, whatever the rest eat," which too frequently means pork and beans, brown bread, fried meats, hot biscuit, rich cake and the inevitable pie. Credita experienti.

CLOTHING.

If improper food holds the first place among the causes of infant mortality, unsuitable clothing follows not far behind. Fashion has, of late, come to the rescue in some measure, and prescribes a more rational dress for children than formerly; but infants in the first few months are still too often seen with naked arms and chests; and when the advent of short clothes arrives, the bare legs look "so cunning" that they are too apt to be left uncovered, even in winter.

As a rule, the clothing of children, all through the developmental period, presents a striking contrast to that found necessary for comfort by adults in the same temperature, while their ability of enduring cold presents an equal contrast, but in the opposite direction. It is of no use to argue the case with the average young mother; "it is the fashion" far outweighs, with her, "it is healthy." For those who are above the average, and inclined to follow the rules of common sense rather than the behests of fashion, one simple direction will suffice; always to dress a child more warmly than is required by an adult for the same temperature.
VENTILATION.

The quality of the air in their homes affects children more than adults for two reasons, the greater amount of time they pass within doors and their greater susceptibility to all morbid influences. We doubt not that the breathing of deoxygenated and impure air is one of the chief causes of scrofula and rachitis among children, deprivation of light being another important cause. At all events, a large part of the scrofulous and rachitic children are found among that class of our population who have not a due appreciation of the value of pure air and sunlight. Any one who wishes to see this part of our subject illustrated, can be abundantly gratified by a visit to almost any tenement house occupied by the lower class of foreigners or negroes.

IMPROPER TEMPERATURES.

Although the hardening process is not so much in vogue as it once was, traces of it still remain in two ideas that are strongly rooted in the minds of the community; that it is good for children to be taken out of doors every day, no matter what the temperature, and that it is healthy to sleep in a cold room.

It should be borne in mind that directions given for other countries, with very different climates, are not necessarily adapted to us, and because English writers advise that babies should be taken in the open air every day, it does not follow that the same should be done in Massachusetts. Many children are brought to premature graves every year by being exposed to our winter temperatures, which are habitually much lower than a child in the first two years of life can ear without injury. Dr. Holmes's idea of rearing under glass is only a strong way of expressing the care that is necessary to bring children safely through our New England winters.

In accordance with the second idea we have mentioned, children, and even tender infants, are put to sleep in rooms where the temperature falls to or below the freezing point. Although a vigorous adult may endure such treatment without suffering any very obvious consequences, with a young child it is far otherwise. Air, at the temperature of 50° F., is probably as cold as an infant can breathe, without danger, while the vital powers are reduced by sleep.

DOSING.

So prevalent is the habit of dosing among all classes, and so sensitive is the infant organism to the action of drugs, that it is not surprising that here should be found quite an important source of disease and death among children. The immense sales of the popular soothing syrups and analogous nostrums, containing large proportions of opium, testify to the reckless drugging of which mothers and nurses are guilty. For an account of the effects of these opiate preparations, I quote the words of Dr. Tanner: "General emaciation, a withered, sallow countenance, red and swollen eyelids, derangement
of the digestive organs with loss of appetite, and constipation of the bowels, with white stools. If their use is continued, the child goes on from bad to worse, and dies in a state of marasmus.

Purgatives are excessively used even more generally than opiates, and are commonly considered the proper thing to give, to begin with, in almost any disease of childhood; so that many a simple diarrhoea becomes a severe enteritis by the assistance of a dose of castor oil; and many a child is rendered feeble and anæmic by the use of vermifuges and terebinthinate mixtures given for hypothetical worms.

DENTITION.

About three per cent. of the infant mortality of Massachusetts is attributed directly to dentition. Probably many deaths from other diseases are owing to it indirectly. It seems strange that a physiological process should be the occasion of so much loss of life, and physicians of high standing are not wanting, who deny that dentition exerts any special influence in the etiology of children's diseases, considering the supposed cases of this influence to be mere coincidences. Undoubtedly some have rated it too highly, but it appears well established that the child, during dentition, is more obnoxious than at other times to inflammatory affections of the nervous, respiratory, and digestive systems.

The influence of dentition in the production of bowel diseases has probably been over-estimated, for this reason, that the follicles of the intestines are developing at the same time that the eruption of the teeth is taking place, and much less powerful exciting causes are necessary to produce diarrhoea than at other times. We also find that teething is more commonly attended with diarrhoea in summer and autumn than in winter. Finally, diarrhoea is a rare accompaniment of dentition in infants reared at the breast.

Convulsions are quite often met with during teething, and are attributed to the undeveloped condition of the brain, whence the spinal nervous system, being without the restraining influence of the will, is excited to reflex action by very slight local irritations, in this case by the pressure of a tooth upon the inflamed gum. This affection, too, occurs mostly in infants fed artificially.

The increased liability of teething children to cephalitis, bronchitis and pneumonia is not so easily explained. Vogel, however, perhaps rather fancifully, attributes the bronchitis to the wetting of the clothes over the chest by the saliva, which is so freely secreted at this time.

(To be concluded.)

*Diseases of Children. 2d Amer. Ed. p. 94.
Progress in Medicine.

REPORT ON PUBLIC HEALTH.

By George Derby, M.D.

 Asiatic Cholera in the United States.

The epidemic of 1873 has fairly begun. Its history must be given at a future time, but we can now record such facts as have come to us from trustworthy sources. The reports of the daily newspapers cannot be relied on, and we are therefore dependent for information on official weekly reports of the boards of health of several western cities and upon private correspondence. There is reason to believe that the interests of trade may even color some of these official documents; as, for instance, when we see seven deaths ascribed to cholera and twenty-five to cholera morbus. From the best evidence attainable at this time (August 4th), it is pretty certain that the disease first appeared in New Orleans some time during the month of April. There is nothing, however, as yet to show whether it was recently imported from Europe, or was a revival of the old seed of cholera left in that region from the epidemic of 1866. The disease was not known to exist in any part of Western Europe during the last winter or spring, but was distinctly recognized in Russia and Hungary, and its presence was spoken of at several other points. It is not difficult to see that among the emigrants arriving at New Orleans it may have been brought in an unsuspected way. There is no proof of its exact origin at New Orleans, but by the middle of May it was causing in that city a mortality of thirty a week. Thence it extended northward to Memphis, Natchez, and several other points on the lower Mississippi. Nashville, in Tennessee, was next attacked, and here the disease became for the first time virulent. The mortality, among the negroes especially, was very great, and the people were much alarmed. Its presence was next reported at several small towns in Tennessee and Kentucky and Missoni; then at Cincinnati, St. Louis and Louisville, but at neither of those great cities have the ravages of cholera been as yet very marked. Thirty deaths a week in St. Louis, in a general mortality of about two hundred, does not indicate a severe epidemic. Cholera has not at the present time been distinctly recognized on the Atlantic seaboard, nor have we heard of it as yet in the cities about the headwaters of the Ohio river. That it will come before long, there seems little reason to doubt.

Now is the time of all others to turn to advantage the public apprehension of the scourge, and to promote all measures which tend to secure the permanent purity of water and of air.

Prostitution controlled by Sanitary Law.

Many European cities have attempted to restrain and regulate this evil, which law can nowhere suppress. Their success has been but partial; never quite satisfactory, yet on the whole such as warranted the continuance of the system of public regulation. Recently, it has been tried in England, under the "Contagious Diseases Act," which applies only to the population of certain naval and military towns.
It would appear, from the British medical journals, that the effect of
the law in diminishing venereal diseases in the public service has been
most gratifying, and great efforts are now making, with a general but
not universal support from the medical profession, to extend the pro-
visions of this act to the whole English population.

It is a little remarkable that a law of this character should prove to
be better adapted to English than to Continental communities, and
even more surprising that it should be found to work still better in an
American city. Yet this seems to be the case. The city of St. Louis,
with a present population of about 400,000, has been trying this ex-
periment for several years. It seems to have been adopted by the
medical profession acting through the Board of Health, and by the
police, as the best available means of diminishing disease and crime;
of ridding the dispensaries and hospitals, and private practitioners of
a flood of venereal cases, and of ridding the streets, bar-rooms, courts,
and public places of scenes of scandal and disorder. It is claimed by
the medical and police authorities to have accomplished all this in a
quiet way, without oppression, and, moreover, that its operation is
satisfactory, even to the parties whose freedom is put under restraint.
Every prostitute is registered, and visited and examined for signs of
disease once a week by medical officers appointed by the Board of
Health. For this examination, a fee of a dollar and a half is collected,
and every keeper of a bawdy-house pays fourteen dollars a month.
All cases of venereal disease are transferred immediately to a hospital
outside the city, which has been built for the purpose, where they are
treated without charge. There are about 700 prostitutes in St. Louis,
and the number is not greater now than six years ago, notwithstanding
the prodigious increase of the general population.

The revenue to the health authorities from the special taxes above
named amounts to $55,000 a year.

Venereal diseases have greatly diminished in number in St. Louis.
This is true of private practice and of public institutions, and seems
to be the universal judgment of the medical profession.

That there is violent opposition to this law on moral grounds is not
to be overlooked. All the clergy oppose it, and even some physi-
cians, while recognizing its good effects, believe that the means em-
ployed are unjustifiable. Meanwhile, the people seem quite willing to
have the experiment go on. It is certainly one of extreme interest,
and it will be carefully watched by other communities, both in this
and foreign countries.

A Handbook of Hygiene. By George Wilson, M.D., Physician to
Convict Prison, Portsmouth, England. Re-printed by Lindsay &
Blakiston. 1873.

This book is to be commended without qualification. For the gen-
eral use of physicians, of health boards, and of all those who are inter-
ested in the prevention of disease, it is a safe guide; giving the latest
results of scientific research in an intelligible form, and furnishing re-
plies to the perplexing questions which are constantly arising, as defi-
nite and clear as the existing state of knowledge will allow. Recent
laws, both in France and England, have created a demand for books on
hygiene, and the supply is abundant from mere bookmakers. Dr.
Wilson's volume is not to be classed with them. It is evidently the
work of an intelligent physician, whose special occupation in connection with a great prison has turned his thoughts to the preservation of the health of those in his charge, and has given him opportunity not only to prove the value of the opinions of Parkes, Pettenkofer, Simon, Morin, and other leading minds of the present day, but also to make valuable original observations. The chapters on Food and Ventilation seem to us of special interest.

Parkes' Manual of Hygiene must still be regarded as the highest authority on all the various subjects of which it treats; but for those who wish for a more brief and elementary treatise, Dr. Wilson's handbook will be found excellent.

The Relations of the Atmosphere to the Clothing, Dwellings and the Ground. Three popular Lectures delivered by Dr. Max v. Pettenkofer.

The following is an abstract of these lectures, which deal with subjects lying at the foundation of sanitary science. The lessons they teach must be repeated in every form, and, surely, no one can present them with more force than Dr. Pettenkofer. Familiar truths are placed by him in new lights, and truths half recognized by the world, like the permeability of so-called solid bodies by the atmosphere, are made clear and practical.

The air, he says, is required by human beings principally for two purposes—for nourishing and for cooling the body. During twenty-four hours, an adult inhales and exhales, on the average, 9,000 litres, or about 360 cubic feet, 3,000 times as much, in volume, as he consumes in food and drink. Air being 770 times lighter than water, the 9,000 litres would weigh 11\(\frac{1}{2}\) kilogrammes, or 23 pounds.

The proper performance of the functions of the body requires the maintenance of a definite temperature of the blood, which cannot vary in the individual more than one degree without injury to the health, and is nearly the same in man in every locality and under all circumstances, there being a difference of only about one-tenth of a degree between the temperature of the blood of natives of the tropical and of arctic regions.

In an adult, under ordinary circumstances, 3,000,000 units of heat are generated in twenty-four hours. By a unit of heat (Wärmeinheit) is meant the amount of heat required to raise the temperature of one gramme of water 1° C. The heat, then, generated within an adult, in twenty-four hours, would be sufficient to raise the temperature of 3,000 litres of water 1°, or 30 litres from 0° to 100° C., or to the boiling point.

In order to explain, in part, the uniformity of temperature of the body, we are to consider ourselves as warm and moist bodies enveloped by the cooler atmosphere. Such bodies lose their heat in three ways—by radiation, evaporation and conduction.

By radiation, the escape of heat from the body amounts to 50 per cent. of the whole quantity generated. By evaporation, the loss of heat was determined as follows: A man at rest lost, in the breath and from the skin, frequently only 900 grammes of water in twenty-four hours; while engaged in active labor, on the other hand, he lost 2000 grammes in the same time. Assuming, then, that 560 units of heat
are required to vaporize one gramme of water, the above amounts give
504,000 units of heat as consumed in a state of rest, and 1,120,000 in
active exercise. These results furnish an explanation of the fact that,
during the most arduous labor, the temperature of the blood is not in-
creased; indeed, in some instances, it is diminished.

The escape of heat in the third way, by conduction, is dependent
upon the condition of the surrounding atmosphere, the rapidity of its
motion, the amount of moisture contained therein, and its tempera-
ture.

The author then considers these methods of the escape of heat from
the body, as they are affected by the clothing.

Radiation is interrupted from the fact that the heat, which escapes
in this way, must first traverse the clothing from the outer surface of
which it must again radiate. The heat, then, instead of radiating
directly from the body, is retained for a longer or shorter period, in
immediate contact with it. So-called diathermanous substances, which
permit the passage of rays of heat without interference, do not enter
into the construction of clothing. The latter is composed only of
materials which absorb the heat. The passage of heat through the
clothing depends essentially upon the conductibility of the material,
and upon its mass. The entire immediate envelope of the body be-
comes uniformly heated by the radiating heat, and so we avoid, as a
rule, the numerous injurious effects which would otherwise result from
the application of sudden changes of temperature to the surface of the
body. In the cold of winter we lose our heat without the sensation
of chilliness, because we transpose from the surface of our body to
the clothes, the locality in which the difference between our tempera-
ture and that of the surrounding atmosphere is adjusted. In animals,
the same purposes are fulfilled by the insensible skin, hair and feathers.

The constitution, properties and color of different materials, in their
relations to the radiating heat, have been studied principally by Krie-
ger (Zeitschrift für Biologie, Bd. v. p. 476). He experimented with a
metallic cylinder containing warm water, around which were wrapped
the different materials. By the use of two layers, e. g. of linen and
wool, linen and silk, &c., he was enabled to determine whether more
heat escaped by radiation, when linen or wool, &c., formed the exter-
nal layer. No essential difference, however, was furnished by wool,
wash-leather, silk, cotton and linen. Neither did the color of the
material occasion any important variation.

By the employment of heat from luminous bodies, however, such as
the sun or a flame, the results were different. Though with clothing
of different materials, but of uniform color, the results did not vary
much, an essential difference was observed with the various colors, as
follows: White, or nearly white materials, gave the proportions enu-
merated under (1); with shirting of various colors, the proportions
given under (2) were obtained:—

<table>
<thead>
<tr>
<th>Material</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Cotton</td>
<td>100</td>
</tr>
<tr>
<td>(2) White</td>
<td>100</td>
</tr>
<tr>
<td>Linen</td>
<td>98</td>
</tr>
<tr>
<td>Flannel</td>
<td>102</td>
</tr>
<tr>
<td>Silk</td>
<td>108</td>
</tr>
<tr>
<td>Pale yellow</td>
<td>102</td>
</tr>
<tr>
<td>Dark yellow</td>
<td>140</td>
</tr>
<tr>
<td>Bright green</td>
<td>155</td>
</tr>
<tr>
<td>Dark green</td>
<td>168</td>
</tr>
<tr>
<td>Turkey red</td>
<td>168</td>
</tr>
<tr>
<td>Light blue</td>
<td>198</td>
</tr>
<tr>
<td>Black</td>
<td>208</td>
</tr>
</tbody>
</table>

Hence, when exposed to the rays of the sun, we feel the heat the
most with black, and the least with white clothing. The increase in
the degree of the absorption of the heat by the different colors, is
quite notable. When we stand in the shade, however, or under cover,
the difference is very slight.

The estimation of the amount of hindrance to the radiation of heat
from the body, occasioned by the clothing, composed of several layers,
introduces the subject of the conductibility of the different materials.

In the experiments previously given, Krieger proved that the radia-
tion was not essentially affected by the employment of single or double
layers of material. Making use of similar cylinders, he estimated the
loss of heat from the contained water after definite intervals, employ-
ing first single and then double layers of various materials which were
wound tightly around the cylinders. The diminished escape of heat,
in the two cases, as illustrated by the following table, furnished data
for the calculation of the amount of retardation of the escaping heat
occasioned by conduction:

<table>
<thead>
<tr>
<th>Material</th>
<th>Retardation (per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thin silk</td>
<td>3</td>
</tr>
<tr>
<td>Gutta percha</td>
<td>4</td>
</tr>
<tr>
<td>Shirting</td>
<td>5</td>
</tr>
<tr>
<td>Fine linen</td>
<td>5</td>
</tr>
<tr>
<td>Thick silk</td>
<td>9</td>
</tr>
<tr>
<td>Home made, thick linen</td>
<td>10 to 12</td>
</tr>
<tr>
<td>Wash leather</td>
<td>14</td>
</tr>
<tr>
<td>Flannel</td>
<td>14</td>
</tr>
<tr>
<td>Light buck-skin</td>
<td>12</td>
</tr>
<tr>
<td>Heavy</td>
<td>16 to 26</td>
</tr>
</tbody>
</table>

In other words, if 100 units of heat escape with one layer of thin
silk, only 97 will escape when two layers are employed. These fig-
ures, too, suggest the conclusion that the retardation is not due to the
material itself and its weight alone, but that its form and volume have
an important influence upon the results. Thin silk and thick silk, fine
and coarse linen, are the same materials, and equal pieces of the dif-
ferent qualities do not differ in weight proportionately with the differ-
ence in retardation of the heat conduction. This fact may be proved
by making use of common wadding. If this is closely packed around
the cylinder, the amount of heat lost is increased sometimes to 40 per
cent. In this case, the material and its weight remain unchanged,
while its form and volume alone are altered. Hence it is, that a new
cloth is warmer than an old one.

Again, if the first layer be adjusted closely to the cylinder, while
the second layer is separated by about 1-2 to 1 centimetre, just as we
wear clothes which feel easy and comfortable, then the second layer
will occasion a still greater hindrance to the escape of heat. Illustra-
tions of this fact are numerous; e. g., tight fitting shoes and gloves
are very cold in winter.

The explanation of these facts is found in the air which is contained
within the clothing. It is a common notion that the clothes are in-
tended to shut out the air from our bodies. On the other hand, it is
the fact, that those materials which experience has proved to be the
warmest for clothing, are much more permeable to the air than those
which are commonly known as "cold materials." The author experi-
imented with different materials, (vide Zeitschrift für Biologie, Bd. 1., p.
170,) with the view of ascertaining the degree of their permeability to
the air. During equal intervals, under uniform pressure, and with
equal surfaces of the following materials, he found that they were permeated by the following relative quantities of air, the most porous, flannel, such as is used ordinarily for clothing, being taken at 100:—Flannel, 100; linen of medium fineness, 58; silk, 40; buck-skin, 58; tanned leather, 1; chamois leather, 51. Hence, if the warmth of clothing depends upon the degree in which it keeps out the air from our bodies, then glove kid must be 100 times warmer than flannel, which, every one knows, is not the fact.

The whole question, then, is resolved into that of ventilation. If several layers of the same material be placed together, and the air be allowed to permeate through them, the ventilation through the second layer is not much less than through the first, since the meshes of the two form a system of continuous tubes of uniform diameter, and the rapidity of the movement of the air through these is affected merely by the resulting friction. Through our clothing, then, there passes a stream of air, the amount of which, as in ventilation, depends upon the size of the meshes, upon the difference of temperature between the external and internal atmosphere, and upon the velocity of the surrounding air. Our clothing, then, is required, not to prevent the admission of the air, but to regulate the same so that our nervous system shall be sensible of no movement in the air. Further, our clothes, at the same time, regulate the temperature of the contained air; as it passes through them, so that the temperature of the air between the clothing and the surface of our body averages 24° to 30° C.

The hygroscopic property of different materials used for clothing essentially modifies their functions. This property varies with the different materials; wool, for instance, takes up more water than linen, while the latter takes up and gives off its watery contents more rapidly than the former. The more the air is displaced by water from the clothes, the less will be their power of retaining the heat; in other words, they conduct the heat more readily, and hence we are quickly chilled by wet garments.

In the second lecture, the author considers the subject of the relations of the atmosphere to buildings. In general terms, the hygienic functions of the house are the same as those of the clothing. Its office is not to shut us out entirely from the external atmosphere. The substances employed in the construction of its walls, as we know, are permeable to water, and must, likewise, be permeable to air, to a certain degree, in order to insure comfort and health for any length of time. The common notion of the impermeability of the walls to air finds its explanation in the fact, that our ordinary sensations are not sensible of atmospheric movement when the velocity is less than one-half metre in the second. Every one knows that moisture will make its way entirely through even a thick wall. It must then be still more pervious to air, which is 770 times lighter than water, and more movable. By reason and analogy, then, and again by experiment, he demonstrates this latter fact in respect of wood, common mortar, bricks and most sand-stones. Compact lime or so-called quarry-stones, however, are very slightly or not in the least pervious to air. But it is to be borne in mind, that the intervals between these stones are filled with pervious mortar; the more irregular the stones, of course, the greater is the amount of mortar employed. It has been estimated that, in a wall of lime stone, one-third, of calc-tuff, one-fourth, of
bricks, one-fifth to one-sixth, and of sandstone blocks, one-sixth to one-eighth of the mass is composed of mortar. It will be seen that the amount of mortar increases with the diminution of the porosity of the stone, and so serves, in a measure, to equalize the amount of air contained in the wall. It will be evident that the amount of air which passes through the material of a wall, of certain thickness, increases proportionately with the superficial area, a subject which is considered later, more in detail.

The behavior of porous constructive materials with water is quite peculiar. As a rule, when the pores are filled with water, they are impervious to the air. The adhesion of water to stone or mortar is as much greater than that of air, as water is heavier than air, a fact of great importance in a hygienic point of view. We all know that the dampness of new buildings is to be feared. In most countries of Europe, the occupancy of new buildings is not permitted until they have been pronounced sufficiently dry by the proper authorities.

By calculation, he shows, that the walls of a new house, containing 167,000 bricks, each weighing five kilogrammes, contain 83,500 litres of water, at a low estimate, which must be got rid of before the house can be occupied without danger to the health. This can be effected only by evaporation, which would require the passage over, and saturation of 1,360 million cubic feet of air, in round numbers, with a medium temperature of 10° C. in the climate of Dresden, during the middle period of the year.

In the investigation of the origin of the spots of moisture, which frequently appear on the walls of buildings after they have been pronounced dry, he shows that the common notion, which, too, is given in lectures and books, is erroneous. It has always been supposed that they were caused by the action of carbonic acid upon the hydrate of lime, which still remains in the mortar. He shows, conclusively, on the contrary, that they are occasioned by the deposit of water upon the wall from the atmosphere.

Upon an accurate interpretation of these spots, depends the correct understanding of the function of mortar in respect of its conducting to the outer air a large portion of the moisture which is developed in the interior of a house. We see, then, why we need to make use of porous materials in the construction of the walls of dwellings, in order to insure dryness.

The author then considers, somewhat in detail, the subject of the changing of the air within the house, which results partly from contamination and derangement of the enclosed atmosphere, and partly from ventilation properly so termed. The consideration of the former leads to the solution of two problems, viz.: what degree of contamination can exist without detriment to comfort and health, as determined by ordinary experience, and what estimate can be made of this degree of contamination, by the excretions of the skin and lungs, into the atmosphere of a close room? The former may be determined roughly by the senses of smell, taste and sight. More definitely, it has been determined by the amount of carbonic acid gas given off by the body. In this way, then, it has been found that 1 volume of the gas in 1,000 volumes of the air within a room, denotes, on the average, a very safe proportion. The determination of the second question was accomplished in the following way: The air of a room was mixed,
to a certain degree, with carbonic acid. The supply having then been stopped, the diminution in the amount of the contained gas, in definite intervals, was measured. Taking into calculation, now, the amount of carbonic acid gas contained in the external air, it was possible to estimate the amount of the outer air which was required to mix with the air of the room, in order to occasion the ascertained rate and amount of diminution in the carbonic acid contained in the air of the room, within a definite time. This method takes no account of the influence of diffusion and absorption. Experience, however, has shown that the error, resulting from the neglect of these factors, is of little moment. By this method of calculation, the author was able to show that, in a room with closed windows and doors, the ventilation undergoes great and decided variations. On the average, for a room in which the air was continually notably pure, the ventilation was found to amount to 60 cubic metres per man and hour, a large amount when we recall the fact that a man does not inhale and exhale one-half a cubic metre in an hour. This result, it will be seen, corresponds exactly with that obtained in the Hospitals at Paris, by the practical experiment of introducing gradually increased quantities of fresh air into the wards, until the limit was attained at which the air continued clear and pleasant.

Experiments, made to determine the degree of the natural ventilation of cattle stables, under various conditions, were also employed to ascertain the amount of ventilation which takes place through the walls of dwellings constructed of different materials. Max Márker calculated for a wall surface, one metre square, and a difference of temperature of 10° C., that with walls of

<table>
<thead>
<tr>
<th>Material</th>
<th>Area in M²</th>
<th>Volume of Air per Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandstone,</td>
<td>0.169</td>
<td></td>
</tr>
<tr>
<td>Lime or quarry stone</td>
<td>0.232</td>
<td></td>
</tr>
<tr>
<td>Bricks,</td>
<td>0.283</td>
<td></td>
</tr>
<tr>
<td>Calc-tuff,</td>
<td>0.364</td>
<td></td>
</tr>
<tr>
<td>(Dried) Clay brick,</td>
<td>0.512</td>
<td></td>
</tr>
</tbody>
</table>

expressed the amount of ventilation.

Márker also found that domestic animals require less ventilation than man; that the air of a stable may contain as much as three volumes in the 1,000, of carbonic acid gas, and that a cow, for example, requires a ventilation of only 30 cubic metres per hour, which is furnished, on the average, by

17.8 square metres of sandstone wall.
12.9 " " limestone wall.
10.6 " " brick wall.
8.2 " " calc-tuff wall.
5.9 " " (dried) clay brick wall.

"Since," he says, "the degree of the natural ventilation of a stable depends, not upon its cubical contents, but upon the superficial area of the ventilating surface of its walls, it follows that the ventilation in a small stable is relatively greater than in a larger one, since, for each animal in a small stable, there is a greater ventilating surface than is the case in a larger one." The application of this fact to dwelling houses is obvious.

In the third lecture, the author considers the subject of the air in
its relations to the ground. As is the case with the clothing and with the walls of a house, the ground contains air, likewise in motion, though it is not perceptible to our ordinary sensations. The pores of the ground are filled either with water or air alone, or with the two together. This contained air is kept in motion, by the force of the external air, by differences of temperature, diffusion,—indeed, by everything which gives motion to gases. The permeability of the ground to air is well illustrated by the occasional cases of poisoning by illuminating gas which have occurred, even in summer, in houses situated at considerable distances from the locality where the gas escapes from the pipe. On the other hand, a reversed action occurs; that is, the natural ventilation of houses is effected partly through the ground and not merely through the walls. Of late, we have learned that the neglect of proper means for cleanliness on the part of our neighbors may be the cause of poisoning our wells. The same causes may also defile the air within the ground, and more readily, too, as the air pervades the ground more extensively and wanders about more easily than the water. While the dangers to public health are lessened by all so-called sanitary improvements, the author advocates, as most essential of all, the increased purification of the ground and diminution of the organic processes in the ground of inhabited localities, which processes are now proved to occur.

The author gives the details of experiments made by himself in Munich, and by Dr. Reinhard in Dresden, to determine the amount of carbonic acid gas in the ground at the depth of one half and four metres. The experiments were made by the author, in a barren locality, and were continued during fourteen months. Considerable variations were found at the different depths. Except during June and July, the amount was always greater at the depth of four metres. It was greater, also, in midsummer than in winter. In Dresden, the amount found in winter, on the contrary, was twice as great as that found in Munich in summer. Further investigations of this kind are required to give a definite idea of this subject. The question at once arises as to the source of this gas. The author shows that it does not originate from sources usually assumed, and asserts that the most natural explanation is that the ground itself is the source of this gas, as it occurs both in the contained air and water, and that it is produced by the organic processes which occur in the ground.

On the Presence of Arsenic in the Air of Rooms hung with Arsenical Wall-papers. By Dr. H. Fleck, Dresden. (Abstract.) (The original paper is in the Zeitschrift für Biologie, viii. (1872), p. 444.)

Although the poisonous character of the arsenical greens and the danger arising from their use have long been recognized, they continue to be used to a considerable extent, and that, too, in spite of legislative enactments.

Unmistakable cases of poisoning have arisen from inhabiting rooms hung with arsenical wall-papers, when, on account of the character of the paper or for other reasons, it has been impossible to ascribe the poisonous effects to portions of the coloring matter mechanically detached. For this reason, and because in certain cases the odor of garlic had been noticed in rooms thus papered, it was long ago suspected that there was actually generated, under some circumstances, arseniuretted hydrogen, or some similar gaseous compound of arsenic.
The conclusions of previous observers have, however, possessed the character of assumptions rather than of convictions founded upon experiment. The author has undertaken to answer, by direct experiment, the question, whether and under what conditions arsenical colors on the walls of a room can generate a gaseous compound of arsenic. The coloring matter used in the experiments was Schweinfurt green, an aceto-arsenite of copper, composed of oxide of copper 31.29 per cent., arsenious acid 58.65 per cent., and acetic acid 10.06 per cent. The author finds, however, that a certain amount of free arsenious acid is always present.

A paper was prepared so that to every square centimetre of surface there should be fifteen milligrams of combined arsenious acid. Starch paste was used to fix the coloring matter upon the paper, and also to fasten the paper to the inside of a large tubulated bell-glass. The bell-glass, thus lined and while the paste was still moist, was placed upon a well-ground glass plate, the tubulure was hermetically closed, and the apparatus was left to itself for three weeks. A growth of mould appeared between the paper and the glass sides, and the air within the jar acquired a musty odor. At the expiration of the three weeks, a slow stream of air was passed through the bell-jar, and the presence of arsenic was shown conclusively in the air as it issued from the apparatus. The arsenical compound, thus present in the air, gave, with a solution of a salt of silver, the ordinary reaction of arseniuretted hydrogen. A similar experiment, in which was employed a flask coated on the inside with a mixture of gelatin and Schweinfurt green, gave a similar result. It was found that a mixture of arsenious acid and starch paste gave rise to the formation of arseniuretted hydrogen, but no arsenic could be detected in air which had been in contact with a mixture of arsenious acid and water without the presence of any organic material.

From these and confirmatory experiments, the author concludes that there can no longer be any doubt of the possible presence of arseniuretted hydrogen in the air of a room hung with paper which is colored with Schweinfurt green; that the evolution of this gas takes place on account of the joint action of moisture and of organic matters (especially such substances as are used in fixing the paper to the walls); and that wherever free arsenious acid is in contact with organic substances, the evolution of the gas is possible. The danger, then, is by no means confined to Schweinfurt green, but may arise from any color which contains arsenic.

**Bibliographical Notices.**


The above essay, in part, appeared in Putnam’s Magazine for September, 1870, under the title, “Society versus Insanity.” The first chapter, in its present form, gives the details of three homicides in which insanity was the defence. The cases are taken from French sources, previous to 1854, and furnish the author his “Text”; but as the “Commentary” in the second chapter, barely alludes to them, we
may dismiss them as intrinsically interesting, but in a measure super-
fluous, since parallel cases are of frequent occurrence.

We are more concerned with the writer’s ideas of medical jurispru-
dence, which he gives at some length, substantially as follows: Sin
and crime, he remarks, are not identical; the latter is to be measured
only by the injury done to society; law and justice are, also, two dif-
ferent things. Justice need not be enforced between society and the
individual unless consistent with the great law of protection. Salus
populi suprema lex. The greatest good of the greatest number must
be promoted, at the risk of property and life to the individual. Upon
this basis, insanity must be dealt with.

Delusion, which in law is evidence of insanity, is no excuse for
crime, in the author’s opinion, unless if true, it would justify the crim-
inal act. For instance, the melancholy mother, who believes her child
to be in danger of perishing with cold and starvation, and kills it out
of her insane pity, is to be held responsible, under this rule, because
this belief, if true, would not justify her! The instance actually given,
is that of a sailor who, during a storm at sea, killed a Russian Finn,
under the delusion that his death alone would save the lives of the rest
of the crew, and bring the ship to land in safety. The author thinks
this sailor’s delusion no excuse for his crime, and that, while death is
the penalty for murder, such lunatics should be made to suffer. He
thinks the tendency of such punishment would be to diminish the fre-
quency of similar delusions!

Dr. Hammond goes still further in the interests of society, and says
“some of the insane are such monsters of depravity, that they should
be slain, upon the same principle that we slay wild and ferocious
beasts.” He also thinks murderers from morbid imitation, should be
punished. He objects to the humane opinion of Mr. Francis Wharton,
an eminent legal authority, when he says, that the consciousness of
the legal relations of crime in an insane person, does not confer respon-
sibility, where it does not otherwise exist. He approves the opinion
of Dr. Mayo, that insanity is no excuse when the person is aware of
the murderous tendency of his actions, “and in being unable to resist
them is only in the same predicament with every recognized aspirant
for the gallows.”

In the case of David Montgomery, an epileptic, recently tried at
Rochester, N. Y., Dr. Hammond disagreed with Drs. Gray and Cook,
as to his responsibility. It was proved that he was insane from recent
convulsions, for several days before the homicide, but on Dr. Ham-
mond’s testimony, that he was conscious at the time, he was convicted
and sentenced to be hung. Drs. Gray and Cook testified to the famil-
iar fact, that epileptics often talk and act quite rationally for several
days, being meanwhile really insane, and are afterwards entirely un-
conscious of what has passed. This case was pending for a year and
a half, when the prisoner became so demented as to require his com-
mitment to the asylum for insane criminals at Auburn.

Dr. Hammond thinks a knowledge of right and wrong a sufficient
test of responsibility, though not of insanity, and thus, too, in the
legal sense; i. e., an individual, to be responsible, need not have any
moral sense as to the nature of his acts, nor even a knowledge that his
act is against the law, for that matter, since ignorance of the law is
no excuse for crime. Any person having sufficient capacity to know
his act is contrary to law, should be punished. He may have no moral
sense; he may be intellectually an idiot; if he "has sufficient intelli-
gence to know that pointing a loaded pistol at a human being, cocking
it, and pulling the trigger, are acts which will cause the death of the person
against whom they are directed, he should be subjected to the
same punishment for a homicide as would be awarded for a like offence
committed by a sane person."

"Emotional insanity and volitional insanity, or irresistible impulse,
should," he says, "be allowed, generally, as much extenuating force
as 'heat of passion.'" He doubts if irresistible impulse is ever, with
the insane, more than almost irresistible!

The views above expressed, sound strangely from an expert, whose
evidence so recently procured the acquittal of McFarland. Such opin-
ions would seem very antiquated and extra conservative, even from an
attorney general pleading for a conviction. They have certainly been
abandoned by several high judicial authorities, and have plenty of pre-
cedents opposed to them, in decisions here and abroad. They do not
reflect the opinions of any alienist of repute, nor the average opinion
of the profession at large. They can only be explained in the writer,
it seems to us, upon local and personal grounds.

In behalf of the insane individual, let us suggest, that society has
no right to more than protect itself, by taking the life of a person for a
homicide for which he is morally irresponsible, when confinement in a
suitable hospital would answer the same end. Neither has law the
right to punish an insane criminal in prison, as a convenient substitute
for hanging, nor to libel him and disgrace his family by the imputation
of crime.

T. W. F.

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**Boston Medical and Surgical Journal.**

**Boston: Thursday, August 14, 1873.**

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A correspondent finds much to complain of in our late editorial on
the suppression of quackery. We publish his letter, though neither
its matter nor its tone is much in its favor, because by exposing some
of its fallacies we can strengthen our case.

The writer tells us that "the maxim 'a little learning is a danger-
ous thing' is false in theory and practice, gotten up for tyrants and
aristocrats," &c., in the true "Elijah Pogram" vein, and hints that
our sentiments are not truly loyal. As the best medical schools are
undoubtedly in Europe, we do not see the force of this tirade. In the
matter of expert testimony, we might learn much from some of the
"effete despotisms of the old world," which would never tolerate such
evidence as here disgraces almost every important criminal trial. We
admit freely that we hope to see the profession a "ring," but one
which every man of education and character can enter, and if it be
aristocratic to decline the fellowship of others, we admit that charge
too.
Further on, we are told that it is possible for non-professional people "to judge what system they should use and what practice they should adopt." We regret very much that it should be necessary to inform our correspondent that there are no "systems" in regular medicine. The fact that very many decently educated people believe in homœopathy is proof conclusive that they are not able to judge. The indignant denial that the "motto of the most pestilent class of quacks is public instruction," does not strike us as materially altering the fact.

It appears to us that the offence of our article consists in maintaining that the opinion of a man of education is better than that of one without, and we imagine that our correspondent holds that if the former decline to treat the crude theories of the latter with respect, he is an aristocrat who ought to be suppressed. We, too, "have no sympathy with the sentiment you must be first, eminent and distinguished in any branch and every calling" in which "you engage," but we believe that every one of fair ability is able to master one profession or calling, and that in others he should ask the opinion of those fitted by education to give one. With regard to the gloomy forebodings of our correspondent, we refer him to the Journal of July 24th, which shows what progress the profession has already made in the suppression of quackery.

One would think that the experience of Boston, last winter, would be sufficient to serve as an example, at least to our own immediate neighborhood. But no. The town of Holyoke is submitting itself to the scourge of smallpox quite after the manner of good old times. The disease has been raging all summer, and no steps have been taken as yet to suppress it. The more we hear of the doings of 'local authorities,' the more we regret that our present system of government permits matters of such hygienic importance, involving the health, not of one but of many communities, to be left in the hands of the ignorant and inefficient.

Glycogen and Glycogeny.—The Medical Times and Gazette, June 21, 1873, in an article on this subject, concludes as follows:—

"Glycogen is formed in the liver; as it is converted into sugar, it is carried away into the circulation. Glycogen is no deposit in the liver, but really formed there; it may be formed from animal or vegetable food, but its formation is greatly stimulated by the use of sugar as an article of diet. Normally, sugar or glycogen is hardly to be found in the system, save sometimes after meals, when sugar may be detected. The process of destruction is not known, but when it is arrested, or the rate of glycogeny is excessive, we have, first, a saccharine condition of the blood, then of the urine, and so the disease called diabetes."
Hillsboro', Ill., July 26, 1873.

Messrs. Editors,—In your issue of the 17th ult., I find an editorial on the "Suppression of Quackery," from which I beg leave to dissent.

It admits it to be one of the most "urgent" and "difficult questions" of solution, and "rests with the medical profession." So far we agree. "If the law forbade, as it should, . . . . but this is too much to hope for, for a long time at least." Can we expect the law to come to our rescue until the people are enlightened enough to see the necessity of the law? No; public sentiment must be made, and can only be made healthy and efficient through us by giving them sufficient light to see the darkness. The maxim, "a little learning is a dangerous thing," is false in theory and practice, gotten up for tyrants and aristocrats, and has done more harm than good; a little learning on any subject is better than ignorance, and we have no business to quote it to fortify a ring, clique or sect, and barricade light and knowledge. The article opposes the position of the Canada Lancet "for instructing the people in medical matters," and gently slurs "popular science as a hobby"; the more such hobbies the better. Is it a fact of small moment, that, during the last three decades, the Astor Library Reports show that, in place of one in fifty works of science being drawn as at first, the last year the number on science exceeded the number on literature and fiction? I have no sympathy with the sentiment, you must be first, eminent and distinguished in any branch and every calling you engage. It neither comports with the means and facilities we enjoy, nor is it compatible with the genius of our republican institutions; the contrary and better opinion prevails, the general dissemination of knowledge. The old world has given us lessons enough on exclusive and infallible habiliments. I am opposed to the ring system in politics or medicine; these cliques, sects and class monopolies are the bane of the country, the great barrier of progress.

Will you allow me to say this animus is not altogether concealed in the article referred to? It crops out when speaking of the "exhibition certain New York professors made of themselves at Steinway Hall." Are New York professors a whit behind Boston professors? Not a bit of it; and no such insinuations will disturb or injure them. Again, it says:—"Non-professional people are not able to judge of medical subjects, and it is not possible they should become so"; but it is possible they should become so sufficiently to judge what system they should use or what practice they should adopt! Again:—"Nothing that is worth knowing can be mastered without severe study"—an element of truth, but largely false, for everyone knows many things worth knowing that never required much study to master. I deny that "the motto of the most pestilent quacks is public instruction." Neither the public nor intelligent physicians recognize any such assumption, and if true of Boston, it is not of the West; and when books are spoken of "for the young," "the married" and "the unmarried," you but recognize a public want; the barrenness of ignorance, which fails to satisfy the soul—the conviction that we know too little of the laws of health and being—speak out in the purchase of just such trash. Why have not men of science and ability given the people the right kind of medical pabulum, instead of starving them with these husks, which the swine feed on?

The profession alone are guilty if the people are being educated in the wrong direction. It is our duty to shape public sentiment, not stand aloof, and, with a vast sense of our "dignity," say to the multitude, you are not worthy of our teaching, follow your blind leaders and go into the ditch together.

And now a word or two in regard to "raising the standard of medical education," with which the article closes, and which is proposed as the only way out of trouble, the right way to suppress quackery, rather than "instructing the people in medical matters."
We are in favor of raising the standard; this ought we to do and not to leave the other undone. Make "the degree something one may be proud to have earned," but do not forget the law of supply and demand. Streams seldom rise higher than the fountain. If "like people like priest" is any-wise tenable, much more "like people like doctor." The highest culture, the noblest endowments and the most thorough scientific training, we all accept, admire and applaud, but often the degree of which we are proud only shows that at some time the stream once rose that high, but now we look in vain for water, or even moisture, within its banks. If we wait until the "dignity of the profession will be recognized" by its high attainments, "sharply" defining the line between us and the irregulars, we shall wait a long time past the millenium. We shall not only be "laughed at and sneered at as bigots," as the writer's just apprehensions intimate, but, as venerable fossils, may reach eminence in some antiquarian depository, or in some museum as a medical deformity of the nineteenth century. Honest and sincere doubtless the writer is, but to my mind he seems to take an impracticable view, altogether Utopian. When we put ourselves out of sympathy with those who need our services by such stilted and visionary motives as run through this article, we are just outside of any possibility of accomplishing the end proposed.

Respectfully yours,

THOS. D. WASHBURN.

MESSRS. EDITORS.—These life insurance companies, of whom some one wrote in the JOURNAL of the 17th of July, or rather their agents, are among the nuisances which afflict us country doctors. They are generally adventurers of about the same stamp as lottery ticket venders; second-hand clergy-men, whose congregations are to be congratulated upon their loss; and men of about the same stamp. I asked one of these fellows what would be the result if I declined furnishing the information, and received for answer, that my patient could not have his policy. In our town, we have found out a trick which rather disturbs them. We say:—"You can have the information you want for five dollars, provided you bring written permission from X. to give you the information." That did very well for a time; but then they adopted the plan of sending the applicant for insurance with the blank to be filled. This caused a change in tactics, and now we say, "tell the agent that we charge five dollars for filling up. If he does not choose to pay it, we know another and quite as good or better company, who will pay us for the certificate, and we can get you into that." The result has been to get rid of the agents.

But this life insurance business is, I fear, coming to an untimely end. Not that I care one fig for the companies, but feel very sorry for the insured. The companies pay out so much to agencies that many of them have got to fail, sooner or later. It has been the history on the other side of the water, and will be on this. A few men, officers, have made money, grown wealthy, but it has been by humbugging the insured. They have taken risks which they had no right to take. They have allowed agents to operate who do not fill out the answers of applicants fairly. They often employ men as examiners upon whom reputable physicians would look with absolute contempt. When in Boston, last spring, I saw a number of names of such in your directory, concerning whom I inquired. It is the same in country towns. I have known one who could not hear conversation five feet from him, make out a certificate of auscultatory signs. It was doubtless true that he heard no souffles and no rales.

There are two of your Massachusetts companies to whom the preceding statements will not apply, and I always send my patients to them, if they desire to be insured. One of these is the New England, the other the State Mutual at Worcester. I speak of these, because they both rejected me as an applicant for a policy, upon my own answers, although I had a clean bill, and a recommendation from their examining physician. This was more than twenty-five years ago, and I am still living.

Oldtown, Vt., July 20, 1873.
GLYCEROLE FOR CHAPPING OF THE SKIN.—B. Oxide of zinc, gr. xx.; tannic acid, gr. xv.; glycetine, 5iv.; tincture of benzoin, 3ss.; camphor, gr. xv. M.

We understand that Dr. Abraham Jacobi and Dr. Mary C. Putnam, of New York, are soon to be united in the bonds of matrimony. Such an alliance cannot be otherwise than extremely interesting in its bearing upon the female physician question. The experiment has been tried in London, as our readers may remember, and, we believe, with great success—professionally.

The new and elegant hall of the New Hampshire Medical College has lately been completed, at a cost of ten thousand dollars. The cases are of black walnut, and the ceiling has been handsomely frescoed. This has been done partly by the liberality of a New York gentleman, Mr. Stoughton, and partly by an appropriation by the legislature. This improvement must have been a welcome one, for since the erection of the building in 1809, at a cost of $4,500, nothing has been done except what the Faculty have been able to accomplish with their private labor and purses.

We are glad to hear that the young lady, upon whom Dr. Robert Battey, of Rome, Georgia, performed the extraordinary operation called normal ovariotomy, a year ago, has not only survived, but is in most excellent health. Her former pains have entirely ceased. Curiously enough, she had a flow from the womb, resembling the menstrual flux, every two to four weeks, up to a few weeks ago, since when she has seen nothing of it.

It is proposed to close the subscription in America for the monument to Von Grafe, on the 1st of September. Any sums received previous to that time will be sent to Berlin at once by the Committee. They may be forwarded to Dr. Henry W. Williams, 15 Arlington St., Boston.

The Medical Record blames the profession for the extensive use of drugs by the public on their own responsibility. This growing evil seems to us to be due rather to the abominable system which floods the country with patent medicines. The directions accompanying these concoctions indeed, saves the doctor's fee, but imparts much false information to the purchaser. We are at a loss to see why a paternal government should not only countenance but protect such abuses. The profession are, undoubtedly, responsible, however, for the great popularity of preparations now furnished so extensively by manufacturing chemists. Though many of these medicines are reliable and convenient, we venture to predict, as well as to express the hope, that their reputation will be short-lived. Why do we have officinal drugs?

Bogus Degrees.—Philadelphia no longer enjoys this monopoly. The following is from the advertising columns of the Kladderadatsch.

"Doctor in Absentia der Philosophie, Medicin, Chemie, und Zahn-heilkunde wurd mit Discretion vermittelt. Adresse Medicus, 46 Königstrasse, Jersey," which means that any one may be made a Doctor of Medicine, Chemistry or Dentistry, by applying to "Medicus." The Lancet rightly says, the more publicity we can give to such advertisements, the less likelihood of their entrapping the unwary.

The following is from Dr. Parvin's address before the Medical Editors' Association:

As Robert Southey well says in "The Doctor":—"Man is a dupable animal. Quacks in medicine, quacks in religion, quacks in politics know this, and act upon the knowledge. There is scarcely any one who may not, like a trout, be taken by tickling." A church dignitary once said, "Populus vult decipi; et decipietur."
NOTES AND QUERIES.

PRESCRIPTION PAPERS.—Among the absurdities, expensive absurdities of the day, is the furnishing of prescription papers to physicians by retail druggists. We are constantly receiving packages of these, sometimes in a bundle of a hundred or more, and occasionally with a very nice, fanciful pocket-book. One of these cases or pocket-books, which came under our notice a few days ago, was of Russia leather, very handsomely got up, and with a physician’s name in gilt-edged letters upon the cover. We took occasion to ask a druggist, some time ago, why he wasted his money in having physicians’ names, &c., printed on these papers, together with his own? The answer was, “because doctors come in and ask for them. If we don’t do it, they send their prescriptions to some one who will.” We overheard a so-called doctor asking for something of the kind, and objecting to the last lot he had received, on account of their getting up.

In this matter of prescribing there are, it seems to us, one or two things to look after. In the first place, be sure that the prescription is properly written. Secondly, be sure that it is put up by a reliable druggist. This latter proposition may well be divided up. The patient has selected you, my friend, to treat his case. He had a perfect right to select you, had he not? He has always been in the habit of employing a certain apothecary. He had the right to do that, had he not? How would growl if his apothecary should advise him to call in another medical adviser. Under certain circumstances, however, he might have the right to do so. Under certain circumstances you have the right, also, to ask him to change his apothecary. If you know that A is not competent to do his work, tell your patient to go to B. If you know that C is in the habit of buying an inferior class of drugs, send to D, whom you know to be more reliable. If you know that E has a particular article which your patient needs, and you are doubtful if any one else has it, why not send for it to E? But in the name of Galen, don’t sell your patronage for a couple of quires of prescription papers, with your name and residence printed upon them.

It is a good plan to ask the patient whom he is in the habit of dealing with. If the druggist is reliable, that is enough. If you know the contrary, or if you have a doubt, suggest another, but be sure the doubt is not based upon a fancy monogram, got up to bait you with. Be sure not to let your doubt be based upon your ignorance of the difference or similarity between Glabrue’s salt and sulphate of soda, Indian root and ipecac.

ERRATUM.—In the Journal for July 31, 1873, p. 113, 17th line, for “except that of Drs. Rockwell and Beard,” read especially that of, &c.

MARRIED.—At Frankfort-on-the-Main, 21st ult., Horatio R. Storer, M.D., to Caroline Gilmore, both of this city.

MORTALITY IN MASSACHUSETTS.—Deaths in eighteen Cities and Towns for the week ending August 2, 1873.


Prevalent Diseases.—Cholera infantum, 180—consumption, 35—dysentery and diarrhoea, 21—scarlet fever, 15—typhoid fever, 15—cholera morbus, 12.

Holyoke reports six deaths from smallpox.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, August 9th, 223. Males, 122; females, 101. Accident, 5—abscess, 1—apoplexy, 3—inflammation of the bowels, 6—disease of the bladder, 1—disease of the bowels, 1—bronchitis, 2—inflammation of the brain, 5—congestion of the brain, 1—disease of the brain, 5—cancer, 5—cerebro-spinal meningitis, 4—choleræ infantum, 4—choleræ ambigua, 6—consumption, 21—congenital syphilis, 1—apoplexy, 6—disease of the ankle, 2—dropsy of the brain, 1—dysentery, 5—delirium tremens, 1—scarlet fever, 8—typhoid fever, 3—gastritis, 3—disease of the heart, 4—hemorrhage, 1—disease of the kidneys, 2—disease of the liver, 1—congestion of the lungs, 2—disease of lungs, 2—marasmus, 9—measles, 1—old age, 5—paralysis, 2—pleurisy, 1—premature birth, 1—peritonitis, 1—spasms, 3—teeth, 1—tumor of the abdomen, 1—unlignant. Under 5 years of age, 132—between 5 and 20 years, 13—between 20 and 40 years, 32—between 40 and 60 years, 30—over 60 years, 16. Born in the United States, 176—Ireland, 34—other places, 19.
Original Communications.

CHILDREN’S DISEASES IN MASSACHUSETTS.

By J. O. Webster, M.D. Harv.

[Concluded from p. 155.]

Epidemic Influences and Infection.

Over 20 per cent. of our infant mortality is caused by epidemic and infectious diseases. This mortality is largely preventible. When people learn to guard as carefully against the spread of scarlatina, measles and whooping cough as they do against that of smallpox, perhaps ten per cent. of our infant mortality may be done away with. The epidemic diseases we are less able to guard against; but, with greater attention to hygiene, no doubt much of their fatality might be avoided.

The remainder of this essay will be devoted to a consideration of the most fatal diseases of children in Massachusetts.

Average Annual Mortality under five from certain Diseases, and Percentage of each, in Massachusetts, for six Years, 1865-70.

<table>
<thead>
<tr>
<th>Diseases</th>
<th>No.</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>All diseases</td>
<td>8,944</td>
<td>100</td>
</tr>
<tr>
<td>Atrophy and debility</td>
<td>152</td>
<td>1.71</td>
</tr>
<tr>
<td>Brach, disease of</td>
<td>119</td>
<td>1.33</td>
</tr>
<tr>
<td>Bronchitis</td>
<td>131</td>
<td>1.47</td>
</tr>
<tr>
<td>Cephalitis</td>
<td>321</td>
<td>3.58</td>
</tr>
<tr>
<td>Cholera infantum</td>
<td>1,349</td>
<td>15.09</td>
</tr>
<tr>
<td>Consumption</td>
<td>292</td>
<td>3.26</td>
</tr>
<tr>
<td>Convulsions</td>
<td>449</td>
<td>5.03</td>
</tr>
<tr>
<td>Croup</td>
<td>392</td>
<td>4.38</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>190</td>
<td>2.13</td>
</tr>
<tr>
<td>Diphtheria</td>
<td>183</td>
<td>2.15</td>
</tr>
<tr>
<td>Dysentery</td>
<td>413</td>
<td>4.66</td>
</tr>
<tr>
<td>Enteritis</td>
<td>63</td>
<td>.92</td>
</tr>
<tr>
<td>Fever, typhoid</td>
<td>114</td>
<td>1.28</td>
</tr>
<tr>
<td>Hydrocephalus</td>
<td>345</td>
<td>3.85</td>
</tr>
<tr>
<td>Infantile, premature, &amp;c.</td>
<td>1,033</td>
<td>11.56</td>
</tr>
<tr>
<td>Measles</td>
<td>164</td>
<td>1.83</td>
</tr>
<tr>
<td>Noma (canker)</td>
<td>112</td>
<td>1.25</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>616</td>
<td>6.88</td>
</tr>
<tr>
<td>Scarletina</td>
<td>596</td>
<td>6.66</td>
</tr>
<tr>
<td>Seroofula</td>
<td>57</td>
<td>.63</td>
</tr>
<tr>
<td>Smallpox</td>
<td>49</td>
<td>.56</td>
</tr>
<tr>
<td>Tabes mesenterica</td>
<td>210</td>
<td>2.35</td>
</tr>
<tr>
<td>Teething</td>
<td>267</td>
<td>2.98</td>
</tr>
<tr>
<td>Whooping cough</td>
<td>293</td>
<td>3.27</td>
</tr>
<tr>
<td>All other diseases</td>
<td>974</td>
<td>10.89</td>
</tr>
</tbody>
</table>

In taking a comprehensive view of the field before us, we find diseases affecting the digestive system preponderating, they being the...
occasion of nearly one-fourth (23 per cent.) of the mortality under five years. Diseases of the respiratory system, including whooping cough, cause about one-fifth; developmental diseases one-sixth; while to typhoid and the eruptive fevers, to tubercular diseases, and to affections of the nervous system, are each attributed one-tenth.

Although our infant mortality is no greater than that of other countries, it is differently divided among the diseases, bowel affections being much more common here than abroad, and nervous diseases holding there a much more important place than here. Pulmonary diseases, also, cause over double the infant mortality in England that they do in Massachusetts.

<table>
<thead>
<tr>
<th>Diseases or Classes.</th>
<th>Massachusetts, 1865-70</th>
<th>England.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zymotic diseases</td>
<td>11,118</td>
<td>9,112</td>
</tr>
<tr>
<td>Convolutions</td>
<td>1,282</td>
<td>4,631</td>
</tr>
<tr>
<td>Cephalitis and hydrocephalus</td>
<td>1,903</td>
<td>3,242</td>
</tr>
<tr>
<td>Bronchitis, pleurisy and pneumonia</td>
<td>2,140</td>
<td>3,348</td>
</tr>
<tr>
<td>Tubercular consumption</td>
<td>834</td>
<td>1,587</td>
</tr>
<tr>
<td>Mesenteric disease</td>
<td>600</td>
<td>439</td>
</tr>
<tr>
<td>Teething</td>
<td>763</td>
<td>1,554</td>
</tr>
<tr>
<td>Gastritis and enteritis</td>
<td>263</td>
<td>863</td>
</tr>
</tbody>
</table>

We shall first consider the chief diseases of the digestive system:—

**CHOLERA INFANTUM.**

To cholera infantum is attributed 15 per cent. of our infant mortality, more than twice the proportion that is assigned to any other disease. It has steadily increased in its death-rate, and in 1870 caused 7.1 per cent. of the general mortality, being exceeded only by consumption, while its average for the past twenty-nine years was only 3.7 per cent.† In Boston, in 1870, it caused 22.18 per cent. of the deaths under five, and 9.38 per cent. of the general mortality.‡ In Philadelphia, for seven years, 1862 to 1868, it occasioned 6.4 per cent. of all deaths.

It is very obvious to any one who has a clear appreciation of what cholera infantum is, that a large proportion of these were not cases of the true choloeraic disease. The common habit of calling cases of summer diarrhoea of children, especially fatal ones, cholera infantum, impairs the value of all our statistics in regard to this class of diseases. The name should be restricted to those cases that present the true choloeraic symptoms, almost identical with those of Asiatic cholera. We meet with such occasionally during every summer, either attacking a previously healthy child or supervening upon an already existing diarrhoea, and usually proving fatal within forty-eight hours.

Cholera infantum is considered an American disease, and is not recognized by English and Continental writers. It would appear

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† Registration Report, 1870, p. 63.
‡ Report of State Board of Health, 1871.
CHILDREN'S DISEASES.

from their descriptions, however, that certain of their cases of enteric disease present the characteristic symptoms of this affection.

It is well known to be a disease of hot weather, nearly all of its mortality occurring in the months of July, August and September, and a sudden rise of temperature invariably increasing its prevalence and fatality.

Its increasing mortality is sufficient evidence that we have not made much advance in its treatment. It is probable that our labors will be most profitably expended in the direction of prevention; but in this direction we can do little, so long as the class of people among whom the disease most prevails is the class least easy to reach by our teachings or influence. So long as, whether in city or country, the simplest hygienic laws in regard to feeding and clothing babies, to cleanliness, ventilation and drainage, are habitually violated, so long will cholera infantum continue to be the scourge that it now is.

Of the other intestinal diseases, the per centage of infant mortality is about as follows:—Diarrhoea 2, dysentery 5 and enteritis 1. If a more correct report could be had, there is no doubt that enteritis would stand far ahead of the other diseases of this group, and that to it would be charged a large proportion of the deaths now attributed to cholera infantum.

The mortality from dysentery has been steadily decreasing for some years. Its infant mortality in 1865 was 833; in 1870, only 273. The epidemic of 1865 appeared to leave an influence that has gradually subsided, and now all cases can be considered sporadic. Dr. Derby predicts, from the experience of previous years, an increased death-rate from dysentery before many summers shall have passed.*

Next in the order of fatality, in infants, come diseases of the respiratory organs.

Bronchitis is charged with but 1\(^\frac{1}{2}\) per cent. of the mortality under five, croup 4\(^\frac{1}{2}\), diphtheria 2, pneumonia nearly 7, whooping cough 3\(^\frac{1}{2}\).

BRONCHITIS AND PNEUMONIA.

Here, as in the last class, we have to lament the incorrectness of the returns. Since the discovery that what was formerly known as lobular pneumonia was really bronchitis, with collapse of lobules, careful observers have found that bronchitis is, in this way, the cause of death in a much larger proportion of infantile cases than was formerly supposed, while the mortality from pneumonia is correspondingly lessened. From the statistics before us, however, we are forced to the conclusion that this advance is practically ignored, to a great extent, in Massachusetts, else we should not expect to find pneumonia charged with nearly five times as much infant mortality as bronchitis.

* Registration Report, 1870, p. 62.
Bronchitis and pneumonia, together, cause 8.35 per cent. of infant and 7.40 of general mortality.

## Percentage of the Deaths from Croup and Diphtheria to the General Mortality, in Massachusetts.

<table>
<thead>
<tr>
<th>Period</th>
<th>Croup</th>
<th>Diphtheria</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 years 8 months, to Dec. 31, 1857</td>
<td>2.37</td>
<td>-</td>
</tr>
<tr>
<td>1858</td>
<td>-</td>
<td>2.36</td>
</tr>
<tr>
<td>1859</td>
<td>-</td>
<td>2.48</td>
</tr>
<tr>
<td>1860</td>
<td>-</td>
<td>2.46</td>
</tr>
<tr>
<td>Five years, 1861 to 1865</td>
<td>2.36</td>
<td>3.54</td>
</tr>
<tr>
<td>&quot; &quot; 1866 to 1870</td>
<td>1.74</td>
<td>1.19</td>
</tr>
</tbody>
</table>

### DIPHTHERIA.

Diphtheria has not prevailed epidemically of late years, and its total mortality decreased from 672 in 1865 to 242 in 1870. Over half of the deaths from diphtheria occur under five.

Diphtheria seems to have been unrecognized in Massachusetts until 1858, when we find .09 per cent. of the total mortality attributed to it. In the previous year, it had begun to prevail epidemically in England and in the extreme western part of our country. The mortality steadily increased until 1863, when it caused 5.08 per cent. of all deaths; it then diminished, and in 1870 caused only .88 per cent. In the past, the epidemics of diphtheria have been separated by wide intervals of time; hence we have reason to hope that another will not be experienced for some generations.

### CROUP.

Croup does not cause so large a proportion of our mortality as formerly; a fact attributable partly, no doubt, to more rational methods of treatment, but partly, also, to the fact that a portion of the cases formerly reported as croup would now be recognized as diphtheria. For the twenty-four years and eight months ending Dec. 31st, 1865, the per cent. of deaths from croup was 2.36; for the five years, 1866–70, only 1.74. For the year 1870, the proportion of mortality from croup and diphtheria was but a trifle above the former average of that from croup alone. These considerations show, I think, that diphtheria occurred sporadically before 1858, but was not recognized as a distinct form of croup until it began to prevail epidemically. No doubt, the distinction will be some time lost again, as it has been repeatedly in the past.

Whooping cough causes 3½ per cent. of our infant mortality, and is as much an opprobrium medicorum as ever. Despite the multitude of specifics that have been discovered for it, its proportionate mortality is the same that it has been for thirty years.

### DEVELOPMENTAL DISEASES.

Next in the order we have chosen, come the so-called "developmental diseases," causing over 16 per cent. of the deaths under five, of which there are attributed to infantile and premature 11¾, atrophy and debility 1¾, and to teething about 3 per cent.
Of the "infantile and premature," about two-thirds belong to the former and one-third to the latter, as nearly as we can judge from the three years in which they have been reported separately. Admitting the correctness of this estimate, we have 8 per cent. of the deaths under five occurring from the causes that are grouped together as "infantile." As it is probable that these deaths occur mostly in the first year of life, they would furnish about 15 per cent. of the mortality in that year.

The deaths reported by this name we apprehend to be occasioned largely by inherited weakness of constitution; the children, born without sufficient vital force to carry on the processes of life, succumb sooner or later, without presenting the evidence of any disease to which their demise can be attributed. The burden of life is too heavy for them, and they are forced to let it fall.

Others of these deaths are occasioned by sheer neglect, sometimes intentional, but oftenest from ignorance of how little exposure a young infant will bear, or from necessity, which compels many mothers, of the poorest class, to leave their babies alone, or with other children, while they go out to earn their livelihood.

Atrophy and debility apparently caused only $1\frac{1}{4}$ per cent. of the mortality under five for the years 1865–70. In 1870, there were reported 217 deaths from these causes, or a little over 2 per cent. In Boston, in 1870, there were 150 deaths under five from "marasmus," or 6.4 per cent. Dr. Eustace Smith says that simple atrophy, in England, is "the commonest form of disease and the most frequent cause of death in infants."* This does not seem to be the case in Massachusetts, for the reason, probably, that while two of the causes given by Dr. Smith, poor quality and deficient quantity of breast milk, are equally operative here, his other cause, improper artificial feeding, is more apt with us to give rise to enteric disease.

Of teething we have already spoken, while treating of the causes of infant mortality.

**TYPHOID AND THE ERUPTIVE FEVERS.**

The fevers constitute the next class of diseases in our division, causing, as we have have said, one-tenth of our infant mortality, divided as follows:—typhus, including typhoid and infantile fevers, $1\frac{1}{16}$, measles $1\frac{1}{8}$, scarlatina $6\frac{1}{8}$, and smallpox $0\frac{1}{12}$ per cent.

Scarlatina stands third in the order of mortality of children's diseases (not reckoning "infantile" as properly a disease), cholera infantum and pneumonia alone being more fatal. Two-thirds of the deaths from scarlatina occur under five, and one-fourth between five and ten. It is not so eminently a disease of infancy as measles, of which four-fifths of the mortality occurs under five.

The apparent is much less than the real mortality from measles, as this disease is more apt than any other to be followed by sequelae.

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the most important of which are tubercular and brain diseases. It often, too, leaves the system debilitated and badly able to withstand the attack of any acute disease that may ensue.

The diseases of this class are, to a great extent, preventible, and the ten per cent. of infant mortality that they cause is, in a certain sense, unnecessary. If the contagion of scarlatina were as much dreaded as that of smallpox, which only caused one-eighth as many deaths in the thirty years of registration, if as great pains were taken to avoid the disease and as thorough disinfection were practised after it, much of the mortality might be prevented. The same is true of measles.

Smallpox causes as large a proportion of the deaths in infancy as in later years. This would not be so if vaccination were not criminally neglected. If performed successfully at an early age, it would afford perfect protection for more than the five years that we are considering.

The death-rate from typhoid fever in infancy is only one-fourth as great as for all ages. Its causes are doubtless the same as in adults, and it is one of the diseases that we should confidently expect to diminish under a more devout worship of Hygeia.

TUBERCULAR DISEASES.

We next come to the consideration of tubercular diseases, the occasion of ten per cent. of our infant mortality, consumption being charged with $3\frac{1}{4}$, hydrocephalus $3\frac{2}{8}$, scrofula $0\frac{5}{8}$, and tabes mesenterica $2\frac{1}{4}$ per cent.

Although these diseases are grouped together for convenience, strictly speaking, there is probably nothing tubercular about the last two, scrofula and tabes mesenterica, the cheesy deposit found in those diseases being simply the product of a low form of inflammation. These, with hip-joint disease, have too long been considered to depend upon a certain scrofulous diathesis; but such opinions are rapidly fading before recent advances in pathology, and we are coming to see that there is no scrofulous diathesis, analogous to the tubercular, but that "scrofulous" children are simply those with feeble vitality, whence they become, from various exciting causes, obnoxious to these low forms of inflammation.

Consumption, it will be seen, is comparatively infrequent before the age of five years, causing only $3\frac{1}{4}$ per cent. of the deaths, while it occasions 20 per cent. of the general mortality. For the eight years, 1863–70, 6.22 per cent. of the deaths from consumption occurred under five, while only 3 per cent. occurred between five and fifteen; suggesting, we think, that most of those who inherit the disease succumb before the age of five years, while those with only a tendency to it, needing an exciting cause for its development, are comparatively safe until puberty.

Hydrocephalus, which means principally, as used in our Registration
Reports, tubercular meningitis, occasions 3.85 per cent. of the infant mortality. About 90 per cent. of all the deaths from hydrocephalus occur under five, and two-thirds of the remainder between five and ten years. Its proportionate mortality is less than formerly, being only three-fourths as great for the five years, 1866–70, as for the twenty-five years preceding.

Tubercular meningitis will be seen, from our statistics, to be a more important disease than is generally realized, causing one in twenty-six of the deaths under five, having a considerably greater infant mortality than consumption. This is to be expected in a community where tuberculosis is so prevalent as here, since it is almost invariably the case that children with this disease are the offspring of tuberculous parents.

*Tabes mesenterica* causes 2.35 per cent. of the deaths under five, over 80 per cent. of its mortality occurring under that age. Its proportionate mortality has been greater during the last ten years than formerly. As already said, there is probably nothing tubercular about the disease, the deposits in the mesenteric glands being the simple product of inflammation of a low grade, excited by a previous enteritis. Vogel holds strongly to this opinion, and Meigs and Pepper endorse it as highly probable.

NERVOUS DISEASES.

Diseases of the nervous system occasion one-tenth of our infant mortality, of which there is attributed to disease of the brain $1\frac{1}{4}$, cephalitis $3\frac{2}{4}$, and convulsions 5 per cent. This class of diseases has a much smaller proportionate mortality here than in England, where diseases of the nervous system, including hydrocephalus, occasion one-fourth of the deaths under five years. In Massachusetts, their percentage is less than 14.

Cephalitis causes $3\frac{2}{4}$ per cent. of our infant mortality. Of all deaths from this disease, 54 per cent. occur under five.

Judging from our Registration Reports, simple inflammation of the brain must be more prevalent in Massachusetts than in foreign countries, or, so far as I can ascertain, in other portions of our own. Dr. West speaks of its "extreme rarity," and seven cases constitute the whole of his experience in this formidable disease.* Tanner says, "simple encephalitis is a very rare disease during childhood, while acute hydrocephalus is very common."† Vogel states that it is much rarer than the tubercular form, and is no more common in children than in adults. The testimony of all the French writers is to the same effect. Meigs and Pepper state that "its frequency is much less than that of tubercular meningitis."‡

In Massachusetts, we find that the average annual mortality, under five, of cephalitis, is 321, against 345 for hydrocephalus, and their

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‡ Diseases of Infancy, p. 464.
respective percentages 3.58 and 3.85; showing but little difference in their prevalence, especially when we consider that the former is not so absolutely fatal as the latter disease.

We think the correctness of these statistics will be confirmed by the experience of all practitioners in Massachusetts.

In common with nearly all nervous diseases, the proportionate mortality of cephalitis has increased, being much greater for the last few years than previously.

Convulsions cause an annual average of 449 deaths under five, or 5 per cent. of our infant mortality; 90 per cent. of all the deaths from this cause occurring under five.

Our proportionate mortality from convulsions is small as compared with that of London, where, according to Dr. West, they cause thirteen per cent. of the deaths under five years.* Meigs and Pepper state that, in Philadelphia, for the five years 1844–8, the deaths under fifteen from convulsions were in excess of those from cholera infantum or pneumonia and several other diseases that they mention. In Massachusetts, three times as many deaths under fifteen occur from cholera infantum and one and one-half times as many from pneumonia as from convulsions.

The relative mortality of this affection has not increased of late.

**NOMA (OR CANKER).**

Noma is a disease that we have not found it convenient to class with any others. To it is assigned 1½ per cent. of our infant mortality, or 112 deaths a year.

It is impossible that more than an insignificant proportion of these deaths can be caused by true noma. I doubt not that the experience of every one will bear me out in this statement. Undoubtedly most of these were cases of enteric disease or of simple atrophy, in which aphthous stomatitis, so commonly called canker, was a prominent symptom. So long as statements of the cause of death are taken from the friends, and physicians are so rarely called upon for certificates, our mortality reports will never possess the value they might have.

The diseases thus far considered occasion 89 per cent. of our infant mortality, leaving 11 per cent. still to be accounted for. About one-tenth of this is attributed to violent deaths and injuries of various kinds, quite a large proportion is unknown, while the remainder is divided among a great many diseases, all of minor importance.

Having taken this rapid survey of our field, the points that strike us most forcibly are, briefly, these:—

1st. That our infant mortality is no greater than that of other countries.

2d. That its causes are the same as elsewhere; but

3d. That, from difference of population and climate, or some un-

known reason, some causes are less operative and others more so than in other communities.

4th. That zymotic diseases are more common, and constitutional and inflammatory less so, than abroad; hence

5th. That sanitary reform, as a means of reducing our infant, as well as general mortality, demands our earnest attention, and promises a more abundant reward for our labors than it would in some other localities.

In taking leave of this subject, it is with the feeling that it has been but inadequately treated, and that the chief value of our remarks will be to suggest how broad a field for study lies in the direction we have been pursuing.

_Lynn, Mass., June, 1873._

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These elastic straps are most promptly improvised by taking the common rubber bands (from one-quarter to one-half an inch in width, by two inches in length), such as are sold by stationers, doubling them, and passing strips of strong muslin or factory cloth through the doubled band, so as to make it a part of the strap; thus allowing it to be stretched to the extent deemed advisable to produce the requisite degree of constricting force when applied around the splints.

In fractures of the fore-arm treated with two lateral splints, four small straps usually suffice, while in fractures of the leg or thigh more are required. Where two parallel lateral splints are used, as in fractures of the fore-arm, the rubber portion of the encircling straps must be placed between the opposing splints alternately on the superior and inferior borders, so as to counterpoise or preserve the balance of the constricting forces; and in case of the arm, leg or thigh where more splints are necessary, the rubber part of the straps should be likewise adapted to the interspaces of the splints, in order to attain the same object as nearly as possible. By these means a sufficient amount of retentive force is _constantly_ in operation, and if much swelling takes place, there will be a conservative yielding of the encircling bands, and when the swelling subsides, no matter how rapidly, there is always a coincident as well as a commensurate adaptation to the diminished size of the limb. As an after-dressing, when osseous union has taken place, and nothing but a precautionary use of splints is required, the use of these elastic bands around either sole-leather, paste board or felt splints is particularly appropriate. In order to fix the splints quite immovably on the skin, a strap of adhesive plaster, two inches wide and as long as the splint, should be applied along the middle of the splint, with the non-adhering surface against its inner surface, applying a short strip, one inch wide, at the middle and at each end, so as to secure it in position. This affords an adhesive surface which will cause the splints to remain in situation most admirably after they have once been applied.
Progress in Medicine.

REPORT ON OBSTETRICS AND DISEASES OF WOMEN.*

By W. L. Richardson, M.D.

Obstetrics.


This extract from Prof. Braune's atlas of topographical anatomy contains the account of some very important investigations recently made as to the true position of the uterus and its contents at the end of pregnancy. The experiments were made on two fresh bodies, the first being that of a female who had died in the last months of pregnancy, and the second was that of a patient in whom labor had already begun. The plates represent vertical sections which were obtained by cutting through the bodies which had first been completely frozen. The result is that all the various organs are seen absolutely in situ. The drawings are made with great care, and the measurements obtained by Prof. Braune differ essentially from those previously reported by other observers.

The following is a brief summary of the results reported:—

The uterus of advanced pregnancy does not have any regular relation to the skeleton, but is soft and changeable in form, its outline yielding to the elevations and depressions of the bony parts of the skeleton and the neighboring viscera. When the patient is in the horizontal dorsal position, the uterus rests for support upon the vertebral column, its longitudinal diameter being consequently lengthened. Moreover, especially in multipara whose abdominal walls are more or less lax, the uterus often lies obliquely across the vertebral column, having apparently fallen over the convex angle of the lumbar vertebrae. When, on the other hand, the patient stands up, the uterus falls forward so as to rest on the anterior wall of the abdomen, as a result of which the circumference of the body is increased at that point. Almost invariably the spinous process of the last lumbar vertebra lies on a level with the greatest abdominal prominence.

The peritoneum invests the posterior aspect of the uterus lower than the anterior and covers the upper part of the posterior vaginal wall. The uterine fascia descend with their network of veins and lymphatics almost to the orifices of the urethra and rectum.

Quinia as an Oxytocic. S. H. Plumb. (Amer. Jour. Med. Sci., July, 1873.)—The writer claims that quinia is just as much an oxytocic as ergot is. Those writers who have denied this action to quinia have not clearly understood the meaning of the word. An oxytocic is a remedy which promotes delivery, not one which induces it. Dr. Plumb states that he has practised medicine for more than twenty-five years in a malarious district, and has had occasion, very frequently, to administer quinia to pregnant women, and yet has never seen any ill effects follow its use. For the last fifteen years he has used it as an oxytocic, and is fully convinced of its efficacy in promot-

* Second Semi-annual Report.
ing delivery. It possesses, moreover, one great advantage over ergot, that under its influence the labor pains preserve their natural inter-
mittent character, thus avoiding the constant uterine action which
follows the use of ergot, and which of itself would, in some cases, contra-indicate the use of that drug altogether.

Dr. Wm. L. Lincoln (Trans. Minn. State Med. Soc., 1873), in a
report on obstetrics recently made to the Minnesota State Medical
Society, confirms these views of Dr. Plumb, and gives an account of
several cases in which he gave quinia to pregnant women. His ex-
perience went to prove that, when given during labor, the pains
became at once more severe and regular. In those cases, however,
where it was prescribed for malarial fever, or diseases arising from
some malarial influence, no uterine action whatever followed its ad-
ministration.

Induction of premature Labour.—(Liverpool and Manchester Med.
and Surg. Reports, 1873, p. 170.) Dr. Walter Whitehead suggests an
improvement on the plan originally proposed by Dr. Barnes. The
method, as described in his “Lectures on Obstetric Operations,” con-
sisted of the introduction overnight of an elastic bougie several inches
within the uterine cavity. This was supposed to be held in position
by the remainder of the instrument which was to be coiled up in the
vagina. Within twenty-four hours some uterine action would have
set in. The cervix was then to be dilated by means of hydrostatic
bags, the membranes ruptured and the child delivered. The chief
obstacle which interfered with the success of this operation was the
great difficulty experienced in attempting to retain the bougie in situ.
Dr. Whitehead has suggested a most admirable improvement to this
plan. To the end of the bougie he attaches an air-pessary. The
bougie is first placed for a few moments in warm water and afterwards
anointed with olive oil. It is then introduced, either with or with-
out a speculum, within the uterine cavity. The pessary is inflated
and the small tap at the end of the tubing, which connects
with the pessary, is turned and made secure by a little piece of stick-
ing plaster. It is then to be passed through an aperture made in
the centre of a perineal bandage, which is held in position by a second
band passed around the waist. The pessary holds the bougie in posi-
tion, dilates the vagina in anticipation of the expulsion of the foetus,
thus facilitating the ulterior stages of the labor, and acts as an addi-
tional excitant of uterine action. In support of his views, Dr. White-
head gives the details of six cases, in all of which the instrument
worked admirably.

E. Lambert gives the details of eleven cases of labor, during the course
of which the hydrate of chloral was administered with a view to pro-
ducing anaesthesia. In some of the cases the results were rather
negative, but in several the patients appeared to be in a semi-
conscious state, and after delivery reported that they had experienced
but little pain. He advises its administration in the dose of fifteen
grains repeated every quarter of an hour until some effect is produced.
With some patients as large a dose as a drachm may be required, but
he considers that small doses frequently repeated always act better
than larger ones given at long intervals. It is chiefly adapted to the
first stage of labor; although, in some of the cases which he reports,
the anaesthesia lasted until after the birth of the child.
Schroeder confirms this statement of Lambert and adds that, although in some cases the intervals between the pains will be found to be lengthened, yet the efficiency of the pains will be found to be unquestionably increased. As early as 1870 (Amer. Jour. Med. Sci., Oct., 1870) Dr. Du Hamel called the attention of the profession to the great value which he had derived from the use of chloral in labor. He gave it in twelve grain doses every hour, for three hours, with very great benefit to the patient.

*Position in Labor.* (Medical Examiner, July 1, 1873.) In a paper recently read before the Iowa State Medical Society, Dr. J. W. Smith calls the attention of obstetricians to the great influence which the position occupied by the patient during delivery has on the course of the labor. He thinks that most cases of labor have a lateral obliquity or pressure, and that the patient should always therefore lie on the side corresponding to the pelvis which is most filled or pressed upon by the presenting part. The woman's head should be low, as in that position the fundus can move more freely. One arm should be placed back of her, or the elbow be sharply flexed, the hand only being allowed to rest in front of the chest. In this position she cannot easily turn on her back, thus defeating the full advantage to be derived from her position. In cases of obliquity, pendulous abdomen, uterine inertia &c., he also advises the use of a wide bandage as a supporter. By a careful attention to the position of the patient, Dr. Smith thinks that the duration of ordinary labor may be greatly shortened, thus lessening not only the sufferings of the mother and the risk to both mother and child, but, in this way also, the necessity for instrumental interference will often be avoided.

*Irregular uterine Action during Labor.* (New York Med. Jour., June, 1873.) Dr. Lusk, following the usual classification, distinguishes, as examples of irregular uterine actions, pains in excess, deficient pains, cramps of the uterus and the various forms of stricture. As regards the first of these varieties he questions whether the uterus ever acts with such an undue degree of energy as per se to constitute a pathological condition. Strong pains, such as occur in cases of obstruction to the passage of the child, may become a source of danger, though their action is oftentimes beneficial; and, in the strong pains, we have in our possession, as suggested by Michaelis, always the least dangerous means of ending the labor. It is true that, owing to the violent straining, such as is often noticed in women who possess such an undue degree of reflex irritability as impels them to an excessive use of the diaphragm and abdominal muscles, serious accidents, such as prolapsus and inversion uteri, lacerations of the uterus, vagina and perineum, haemorrhage &c., may occasionally follow a precipitate labor in consequence of excessive uterine action. The subcutaneous injection of morphia or the production of complete anaesthesia by chloroform will suspend the action of the voluntary muscles, and thus remove this source of danger.

Too weak pains may be oftentimes pathological. In many of these cases, however, it is better to wait and not resort to the use of oxytocics, provided that the uterus remains slack, and therefore does not compress the fœtus. In these cases, when interference is called for, a judiciously-selected operative procedure is best resorted to, or ergot
may be administered. In a limited number of cases a regulated pressure, made through the abdominal walls upon the fundus uteri, as advised by Kristeller, may be found useful.

Strictures of different parts of the uterus are classed by many writers among the causes of difficult labor, but Dr. Lusk questions this opinion, and, while admitting, of course, the existence of circular, oblique and longitudinal muscular fibres, claims that their importance has been greatly exaggerated. He doubts whether, during labor, the uterus ever contracts except in its totality, and he ascribes these so-called strictures to insufficient uterine action. In these cases there is no necessity for bloodletting, or the use of tartar-emetic or belladonna ointment; the chief indication for treatment is to relieve the acute suffering, which usually accompanies such a condition of the uterus, and then in time the tonic contraction will disappear of itself. This is best done by the administration of morphia either by the mouth or hypodermically. In some cases, where anodynes and anaesthetics fail, the rupture of the membranes will be followed by the happiest results. In those cases where our object is to overcome rigidity of the cervix quickly, other methods having failed, the use of Barnes's dilators will act most beneficially. Occasionally, the head having passed through the cervix, the tonic contraction of the uterus will prevent the advance of the shoulders. This state is due not to the spasm of any special bundle of circular fibres, but to the fact that the uterus has become conformed to the fetal irregularities. Whether this condition is met with in a head or breach delivery it is best overcome by kneading and compressing the uterus so as to excite expulsive pains. The condition before delivery, known as uterine rheumatism, may be due to hysterical hyperaesthesia, intestinal irritability, early stages of inflammation or to deficient elasticity (seyfert) of the peritoneal covering of the uterus. Such pains as these disappear, under the use of warm baths, blankets, hot drinks and Dover's powders.

Eclampsia. Dr. Isaac G. Porter (New London, Conn.) considers that convulsions are occasioned by the presence of a toxic agent in the blood, and that this agent must be eliminated by purgatives, diuretics or diaphoretics. As a very active and efficient method of treatment he advises the use of the "wet pack." He gives the particulars of a case (Amer. Jour. Med. Sci., July, 1873) in which it was tried with perfect success after therapeutic means of acknowledged power had failed. The patient had had some thirty convulsions when she was placed, her clothing having been previously removed, on a sheet wrung out of water as hot as could be borne. She was rolled up in this, blankets being rolled outside of it. Hot water was used rather than cold in this case, as there was a slight attempt on the part of nature to eliminate the poison by diaphoresis. In cases, however, where the skin is hot and dry, the "cold pack" is to be preferred. Within an hour she passed into a quiet sleep, and became universally wet with perspiration which, if not urinous, was at least very offensive. She had but one convolution after the "hot packing" was resorted to. She remained "packed" five hours, after which the diaphoresis was continued by milder means.

Dr. Alexander Milne reports a case of convulsions (Trans. Edin. Obstet. Soc., 1872) in which very marked relief followed the adminis-
tration of sixty grains of the hydrate of chloral. This remedy was highly recommended by Rabl-Rückhard (Berlin Klin. Wochenschr., 1869, No. 48), who used it with success in the treatment of puerperal convulsions. He preferred, however, to administer it subcutaneously.

Schroeder advises that narcosis be produced as rapidly as possible by the inhalation of chloroform, and the condition be subsequently kept up by subcutaneous injections of morphia. (Manual of Midwifery, Schroeder, London, 1873.)

Labor complicated with Malignant Disease of the Genital Passage. (Lancet, March 1, 1873.)—Dr. J. J. Phillips (London) reports two cases of labor complicated with malignant disease, in which is clearly shown the advantage to be derived from the efficient employment of hydrostatic pressure as a means of effecting a gradual dilatation of the genital passage. The first was a case of cancer of the cervix uteri. The anterior lip of the cervix was occupied by a hard mass about the size of a pullet's egg, while a similar swelling, about half of that size, occupied the posterior lip, a firm rim of os uteri connecting the two swellings. The patient had been in labor over twenty-four hours, the os dilating but slightly. Barnes's bags were introduced and subsequently filled with water. As soon as the cervix admitted of the introduction of the largest bag, version was performed and the patient delivered of a stillborn child. The patient died of cancer some eighteen months after delivery. The second was a case in which the whole anterior wall of the vagina was occupied by an indurated mass, having a foul, irregular, ulcerating surface. It was deemed advisable to induce labor at the eighth month. The membranes were accordingly ruptured; a spherical bag, about two inches in diameter, was introduced into the vagina and distended by hydrostatic pressure. The pain which followed, was relieved by a subcutaneous injection of morphia. Later, a Barnes's bag was introduced, as the lower part of the vagina had yielded but little to the spherical bag. The child was subsequently delivered with the forceps. The patient soon after left the hospital, and, though the disease had steadily progressed, was alive some six months later. There is no question but that, occasionally, an incision may be absolutely necessary, but these cases show that, where the malignant disease is not far advanced, dilatation by means of water-bags may be sufficient.

Craniotomy.—The chief difficulty which the operator has to encounter in performing the operation of craniotomy is to be found in the extraction of the fetus. The perforation of the fetal head is comparatively an easy task, although we cannot but allude, in passing, to the great advantage which, even in this part of the operation, Braun's curved trephine has over any of the various cutting perforators used so generally in this country. The German instrument avoids any possibility of spicule of bone being left to injure the vaginal canal in the subsequent extraction of the fetus. The head having been perforated, the question then arises how is the extraction to be performed. Various instruments have been invented for this purpose, which, while they differ in some trivial details from each other, may yet be divided into two classes, the cephalotribes and the cranioclasts.

In a most excellent article recently read before the New York Obstetrical Society, Dr. Paul Munde calls the attention of obstetricians to the cranioclast as improved and used by the Vienna School.
In this paper (Amer. Jour. of Obstet., May, 1873) the writer alludes to the great size and bulk of the cephalotribe, which would alone prevent its free use in cases of extreme pelvic deformity, unless indeed it be applied in the transverse diameter; in which case the very compression which follows would cause the antero-posterior diameter of the head to lengthen and thus render the contraction all the more difficult, since this diameter corresponds in most cases to that pelvic diameter which is in such case abnormally shortened. He also calls attention to the fact that it is with great difficulty that the mutilated head can be firmly grasped with the cephalotribe, and that frequently serious injury is inflicted to the maternal parts by the instrument slipping. All of these objections are avoided by the use of the cranioclast, an instrument first described, in 1860, by Simpson, and since then greatly modified and improved by Braun and his colleagues in Vienna.

Dr. Karl Rokitansky, Jr. (Beobachtungen über Kraniotomie.—Wiener Med. Presse, 1871) gives the following figures as showing the comparative results of craniotomy cases terminated with the cephalotribe and with the cranioclast:—Out of 52,394 cases of confinement in Professor Karl Braun's clinique, during ten years and three months, one hundred and three were terminated by craniotomy. In eight cases, after trepanation was performed, the pains expelled the child. The cephalotribe was applied in forty-three cases with the following results:—The instrument slipped off in eight cases; in two cases, the child could not be delivered with the cephalotribe, and version had to be performed; in six cases, the head had to be crushed in different directions; in eight cases, ruptures of the cervix occurred, and in three cases a vesico-vaginal fistula followed the delivery. Of the mothers, twenty-one died, sixteen of the deaths being the result of puerperal disease.

On the other hand, in fifty-two cases the extraction of the child was performed by means of the cranioclast. In no case did the instrument slip, or was it found necessary to re-apply it. Of the mothers, nineteen died, fifteen of puerperal disease. Comparing these results with the results following the use of the cephalotribe, Rokitansky says "all of the unpleasant occurrences accompanying the use of the cephalotribe were found wanting during the operation with the cranioclast."

Dr. Munde closes his article by giving Rokitansky's résumé of the advantages of the cranioclast.

1. Its application is possible in every diameter of the pelvis and is never attended by the difficulties peculiar to the employment of the cephalotribe in some cases.

2. Owing to its smaller size, and the fact that the solid blade is introduced into the cavum cranii, it needs a much smaller field of action.

3. The action of locking is very easy, as the lock remains external to the vulva, and the blade lying in the cavity of the skull can be moved freely in all directions without fear of injuring the maternal passages.

4. It never slips.

5. It is equally reliable with the preceding as with the succeeding head.
6. Injuries to the genital organs do not follow its use.
7. It can be intrusted much sooner than the cephalotribe to the hands of a but moderately skilful operator.

Forceps.—Fortunately, as regards the sufferings of the mother and the safety of both mother and child, the forceps are daily being used more and more frequently by the profession. In a report of 1400 cases occurring in his obstetric practice, Dr. Thos. Savage states (Lancet, Feb. 22, 1873) that in 1,437 births he used the forceps 220 times, or about once in every 6½ deliveries. Of the children thus delivered, 129 were males and 91 females. As showing the great change which has come about in the use of the forceps, he alludes to the fact that according to the statistics of the Royal Maternity Charity of London (1828-1850 inclusive), forceps were used seventy-three times in 48,996 deliveries, or about once in 670 cases. Craniotomy was resorted to sixty times in the same number of cases.

Besides the usual indications for the use of forceps, Dr. Savage advises that they should be used when the uterius is in a state of constant contraction, the patient being in a state of pain all the time, the head being pushed steadily forward and never receding.

According to the annual report of the Rotunda Lying-in Hospital in Dublin (Dublin Jour. Med. Sci., Feb. 1873), forceps were used 131 times out of 1,193 deliveries, or once in 9½ cases. In thirty-five instances forceps were used before the os was fully dilated. Of these last cases, two terminated fatally; both of the patients, however, had gastritis at the time they entered the hospital.

Zymotic Diseases.—From the Annual Report of the Rotunda Hospital above alluded to, the following interesting facts are taken. Scarlatina appeared three times. In the first case, the rash appeared on the fifth day. The patient was at once removed to another hospital. Four other patients in the same ward went out well. In the second case the rash appeared on the third day. The patient was at once removed, and four other patients in the same ward were discharged well. The third case broke out on the fifteenth day after delivery. There being only two other patients in the ward at the time, and as a space of one bed intervened between them and her, she was allowed to remain, and was discharged in due time well. The other two patients suffered in no way from the presence in the ward of the patient with scarlatina.

Ten cases of variola occurred in the hospital, nine being among the patients and one in one of the inmates. The latter was moved at once to another hospital and died. In one case, the woman entered the hospital with the disease. She was delivered and then sent to another hospital. In seven cases the disease appeared at varying intervals after entering the hospital, viz., one in 12 hours, one in 24 hours, one in 26 hours, two in 3 days, two in 4 days. Six of these were sent to another hospital, and one was removed to a small ward. In one case the disease appeared on the ninth day, in the child, which died forty-six hours later. The mother continued perfectly healthy. She had never been re-vaccinated, but had two well-marked cicatrices on her arm.

All of these cases of variola were more or less in contact with the other labor patients, in whose wards they were for a period varying from six hours to four days; and yet in no instance did the disease
extend from the one individual. Six cases of mania occurred, five being unmarried. Two died; one from extreme mental distress, the other from extreme renal disease.

Twenty deaths occurred during the year, being an average of 1 in 5913. Of these 20 patients, 14 died from accidental causes, thus leaving only six which died of zymotic disease. This lessens the average to one in 1985. Of these six cases of death, occurring from some zymotic cause, one took place in November (Ward No. 5), one in April (Ward No. 5), one in May (Ward No. 6), one in July (Ward No. 2), two in August (Wards No. 1 & 2). In these wards all the other patients confined at the same time went out well.

Dr. Johnston closes his report by calling attention to the fact that, although epidemics prevail with a fatal issue and to a fearful extent outside the hospital, and notwithstanding that patients are admitted from the infected localities, they do not exist in the hospital, and if, perchance, a patient is admitted with disease upon her, it is not disseminated through the institution, never having once extended beyond the individual case.

(To be concluded.)

Digestive Power of Saliva and Pancreatic Juice during Infancy.—The Medical Times and Gazette, May 31, 1873, states that the recent experiments of Korowin, of St. Petersburg, upon the saliva of new-born infants and sucklings, in regard to the time of its very earliest appearance and its fermentative power at different ages, deserve careful attention. Korowin, by giving to infants pieces of compressed sponge to suck, and then squeezing from these whatever saliva, if any, might be collected, was able to determine that saliva might be obtained from the mouth of a child only a few moments born. The secretion is, however, very scanty. From the end of the first month of life, and especially after the sixth week, the amount of saliva which may be removed increases much. In the third month, as much may be obtained as in the first month in one tenth the time. In the fourth month, the saliva begins to flow visibly from the mouth of the child.

The saliva of the child possesses its diastatic or fermentative property from the time of its first appearance—that is, immediately after birth. The action of the saliva, however, is not always equally powerful; on the contrary, it increases steadily and rapidly with age up to a certain point. It seems certain that while its diastatic power increases up to the eleventh month of age, it then reaches its maximum—that is, a given amount of saliva of a child of eleven months and of an adult respectively, decomposes equal quantities of starch-paste.

Korowin removed the pancreas from the bodies of children who had died of various diseases, at various intervals post mortem. An artificial pancreatic juice was then prepared in the usual manner, and the amount of glucose formed estimated quantitatively. The results obtained are very important. In a child of one month the action of pancreatic juice upon starch is absolutely nil; it is first demonstrable in the second month, but very feeble; at the end of the third month of life it has become sufficiently powerful to make a quantitative estimation possible of the sugar formed. The diastatic action of the pancreatic juice, once acquired, increases in intensity with age, and reaches its maximum at the end of the first year of life.

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Within five years this manual has passed through five editions, the last American one (the third) having been issued in 1871. Much new material ("altogether about seventy pages") has been added to this last edition, and many corrections have been made, so as to bring the standard of the work up to the present stand-point of chemical science. The chapter on the "General Principles of Chemical Philosophy" has been entirely re-written, and contains very clear statements and explanations of the more recent theories. The chemical laws are clearly worded, and the definitions given are accurate and concise. In some of the theoretical points the author differs from most chemists, such as, in his idea of the acid "radicals," and of the quantivalence of iron. He speaks, for instance, of NO₃ as the radical of nitric acid, and of SO₄ as the radical of sulphuric acid, instead of NO₂ and SO₂ respectively; and he states that the iron in ferric compounds is trivalent instead of quadrivalent, most authors considering that one combining unit of each atom of iron in the ferric compounds is saturated by the other, while the remaining three combining units of each atom are saturated by three of some other element or radical, as chlorine in ferric chloride (Fe₃Cl₉).

The arrangement of the elements is somewhat novel, both the non-metallic and metallic being subdivided according as they are used with greater or less frequency in pharmacy, so that some elements, which are very closely allied to each other chemically, are widely separated in the book. Thus bromine is classed with those but little used, and separated from chlorine and iodine, between which it is intermediate in its chemical properties; and, moreover, the propriety of arranging bromine among those elements of the least practical importance is questionable. The treatment of lithium, manganese, nickel, chromium and bismuth among the metals is separated from that of those metals to which they are closely allied chemically, and the acids are also arranged on the same principle.

The best tests for the different substances are given, and the action of the reagents used is fully and clearly explained. The chemical reactions which take place in the performance of the most important tests are also given, and the importance of being able to describe the effect of reagents by the writing of reactions is fully impressed upon the mind of the student. It is in this way that the action of ferric hydrate (hydrated sesquioxide of iron) upon arsenious acid, and of the mixed ferrous and ferric sulphates upon hydrocyanic acid or alkaline cyanide is explained, thus giving the student by a mere glance the rationale of the antidotal effect of these agents.

Several analytical tables are given in order to show the action of group reagents in qualitative analysis, but the methods for separating
the metals from each other and the precautions necessary to be observed are not as fully described as in the special text books on qualitative analysis, nor are the tables quite as complete. With the assistance of an instructor, however, to supply these deficiencies, the manual will prove very valuable to the student as a laboratory text book on qualitative analysis.

To the student of pharmacy the work is invaluable, the methods for preparing all of the official compounds in the Br. and U. S. Pharmacopoeia being given and fully explained. The most recent preparations, too, have found a place in this edition. The means for detecting the most common adulterations in medicinal preparations are also given, and in the appendix a table giving the official tests for such impurities.

In that portion of the book which treats of organic chemistry, the molecular constitution of chemical substances is well explained, and those organic compounds, which are of the greatest practical importance to the physician and druggist, are treated of. Of the albumo-loids, only the principal ones are spoken of, their chemical properties and more important tests being given. Also, the principal members of the saccharine and other groups of organic substances are well described.

Physiological chemistry is scarcely alluded to, and those portions of the manual which treat of urinary chemistry and toxicology are very incomplete, and not entirely free from error. Thus, it is stated that the presence of bile in the urine is best detected by Pettenkofer's test, whereas this test is only applicable to the biliary acids, substances which are rarely tested for in the urine, and the pathological importance of which is not as yet accurately determined. The statement is also made that, in testing the urine for albumen by the heat test, it is best to previously acidulate the urine with "a few drops" of nitric acid, which would be pretty sure to retain the albumen in solution, were only a very small amount present, as is frequently the case in chronic degeneration of the kidneys. The whole of urinary chemistry including the analysis of calculi is disposed of in twelve and one-half pages, and toxicological analysis in ten pages.

The outlines of quantitative analysis, volumetric and gravimetric, are given, those processes being most fully described which are the most frequently used by the pharmacist. The quantitative determination of quinia and morphia, and the processes for estimating the value of cinchona bark and of opium are included.

The work contains many extremely valuable tables, among which may be mentioned very complete tables for the conversion of the Troy and metric systems of weights and measures, and formule for the conversion of the degrees of the Fahrenheit, Centigrade and Reamur thermometric scales into each other.

For the pharmaceutical and medical student, Prof. Attfield's work forms an excellent text book on general chemistry, containing much valuable information which is not included in most text books on general chemistry. For the study of medical chemistry, however, the student must have recourse to special treatises, and we have yet to see a good text book upon medical chemistry for the use of the medical student.
The petition from the slaughtering establishments, bordering upon the Miller's River basins, to the Board of Aldermen of this city, seems to have ignored the testimony of the Board of Health in regard to the cause of the terrible odors to which the public have of late been subjected. It seeks to lay the blame entirely upon the very imperfect system of drainage which has been adopted by all the cities bordering on the waters of Charles River. We have lately alluded to the report of the joint commission of the Board of Harbor Commissioners and the State Board of Health, to the cities of Cambridge and Somerville, appointed by an act of legislature last year to investigate this nuisance, the smells and complaints of last summer having rendered some action absolutely necessary. The commission engaged the services of an eminent engineer to make such investigations as were deemed necessary. A careful survey of the whole district was made, the actions and influence of the tides were closely studied, and the mud and water were subjected to chemical examination. The report of the engineer to the commission seems to have covered the ground thoroughly. The conclusions arrived at were based partly upon these investigations and partly upon the testimony of the parties interested. The commission was satisfied that the nuisance was produced, firstly, by the use that is made of the basins as a receptacle of the sewage draining from the cities of Cambridge and Somerville; secondly, by their having become precipitating basins for all the fifth brought by the incoming tide, but mainly from the use made of them by the neighboring slaughtering establishments. The remedy is embodied in the following plan reported by the commission:

"First—that the city of Cambridge complete its system of sewerage, so that such portion of its territory as is now drained into Miller's River be drained into sewers already made or projected, having their outlets into Charles River.

"Second—that the City of Somerville construct a main sewer, from Milk street through Prospect, Washington and Cambridge streets, into Tufts' Dock in Charlestown, on Mystic River, and connect with this main sewer, lateral sewers, in such a manner that whatever now drains into the Miller's River basins, will drain by this main sewer into the Mystic River, and that the city of Somerville obtain the requisite legislation to carry this main sewer through the territory of the city of Charlestown.

"Third—that the cities of Cambridge and Somerville fill up with clean gravel, to the grade authorized by law, all the channel, flats,
and basins of Miller's River, lying east of Prospect street in Somervillle, and southwest of the Boston and Lowell Railroad; reserving at first from such filling, through the middle of said channel and basins to the outlet under the Boston and Lowell Railroad, a space not less than fifty feet in width, where such a width is possible, until the drainage of the territory of Cambridge and Somerville, now leading into these basins, has been diverted from them into Charles and Mystic Rivers, as hereinbefore provided, and then, in the months from November to April inclusive, finally removing from this reserved space the mud which has there accumulated in the process of filling the adjoining areas.

"Fourth—It will then remain to enforce those sanitary principles which the Commonwealth has already adopted with reference to industries of the class peculiar to this neighborhood."

This advice has to a certain extent been finally adopted, for the filling-in has begun. The work, however, will not be completed until long after the nuisance for this year at least has ceased. In the mean time we doubt if much can be done to mitigate the evil during the warm weather that is to come. We do not think that the petitioners are justified in the statement that "it is certainly a fact that no Board of Health, Committee on Health, grand jury or other official body has ever been able to fix upon those places [slaughter-houses] the stigma of having originated or produced the offensive smells or deleterious vapors."

We do, however, sympathize strongly with Mr. Squire's views on the subject of the drainage of Boston and its vicinity. With perhaps as great natural advantages as any city ever had, both in the formation of its land and the flow of its waters, on which to elaborate a perfect system of drainage, we are much worse off, in this respect, than even the great city of Berlin with a small and sluggish stream to discharge its filth into, and in many streets with a variation of level of scarcely two feet in as many miles. Our population is rapidly increasing, and many large and important areas are being filled in to meet the increased demand for land, and yet we have not thought it worth while to profit by the experience of other large cities. That of London, for example, which is mentioned in the petition, is too well known to need repetition here. The danger and expense there incurred will sooner or later be inevitably visited upon us. We think this subject of general drainage quite as important a matter to the city as the remedies to be applied to Miller's River; and we trust the source and motive of the petition will not stand in the way of a careful consideration of this subject by the Board of Aldermen.

The annual meeting of the British Medical Association was held on the 5th, 6th, 7th and 8th of August. According to the last accounts,
the prospects of a successful meeting were unusually good. The Association has of late years been growing greatly in popularity, if we may judge from the large yearly accession to its numbers which it has enjoyed for some time, and, what is perhaps of still greater importance to its success, from the very general participation of eminent men in the annual exercises. The number of foreign visitors is also numerous, and we find among the names on the list some of the most distinguished men on the Continent. America and many other countries are also well represented. The names of officers of the various sections and the list of papers and contributions offer a very attractive programme. We also find several additional interesting features, such as preparations for an exhibition of patients to illustrate different methods of treatment, and an "annual museum," or exhibition of objects of interest in connection with medicine and surgery, including all kinds of specimens, preparations, instruments and new medical works, all of which are set forth in a carefully prepared and illustrated catalogue. The President of the Association is Alfred Baker, Esq., of Birmingham; the President elect is Sir William Ferguson. In reading the accounts of the extensive preparations for the entertainment of over a thousand medical men, one is struck with the active and increasing interest manifested by Englishmen in their national association, and the strong contrast here afforded to the meetings of the American Medical Association and the class of men who attend them. The differences existing in the organization of the two bodies would afford an interesting and, perhaps, to ourselves, a profitable study. One great advantage possessed by the British Association is its place of meeting, which in itself affords facilities and inducements to tempt even the most eminent and the busiest men. The value of a representative journal is doubtless very great, and, indeed, has done much to increase its popularity. We shall look for the reports of the meeting with much interest.

"Catching Cold."—The British Medical Journal, June 28, 1873, contains an article with this heading. It states that, although our opportunities for studying the pathology of colds are very numerous, yet we know very little about it. Almost all that can be stated is that the diseases which are popularly ascribed to cold, are liable to come on after the whole body, or parts of it, such as the feet, have been quickly cooled below the normal, or, in other words, have been chilled. There are two factors concerned in the cooling of the body or its parts. One is the nature of the external medium, such as air or water, which is in contact with the body; the other is the condition of the blood vessels. Dry air has very little power to abstract heat, provided it be still. The presence of a slight wind, however, from the constant contact of fresh particles of cold air on the surface of the body, soon carries off its heat. If moisture is present in the air it greatly in-
erases its power of abstracting heat, and when wind and moisture
are combined, the chilling effect reaches its maximum. Experience
has shown us that it is not so much the absolute lowness of tempera-
ture which gives rise to colds, as sudden changes from a higher to a
lower. The reason of this remained unknown till the recent researches
of Professor Rosenthal cleared up the mystery. When cold is applied
to the surface of a healthy animal the cutaneous vessels contract, and
by thus confining the blood to the interior of the body, prevent its
cooling, and preserve the temperature of the vital organs, unless the
application of cold be continued for a considerable time. This is not
the case, however, when the animal has been previously exposed to
warmth sometime before. The cutaneous vessels become paralyzed by
heat, and remain dilated even after the cold has been applied. The
blood is thus exposed over a large surface, and becomes rapidly cooled,
even though the temperature of the surrounding medium is not very
low. Confinement in a choky office, hot theatre, or crowded ball-room
will have this effect on man. From such places people pass out into
the cool open air, or will sometimes purposely place themselves in a
draught. The blood which is coursing through the dilated vessels of
every part, is rapidly cooled below the normal, and, on its return to
the internal organs, cools them much more quickly than it could have
done had the person simply been exposed to cold without dilatation of
the vessels by previous warmth. Rosenthal lays much stress on the
great effect of sudden cooling in bringing on a cold, the sudden change
in the temperature of the blood producing an irritating effect, and
inducing inflammation in any weak organ in a way that a gradual al-
teration would not do. It would seem, however, that the alteration
must be from a temperature above to one below the normal tempera-
ture of the blood, and not a mere reduction from one considerably
above the normal to one at or near it. When much heated, we may
stand for a short time in a cool atmosphere with impunity; but if we
stand long enough to carry the cooling process too far and produce a
shiver, we run a great risk of catching cold. The effect of a chill in
causing inflammations, may be partly due to the effect of cold on the
tissues themselves, and partly to the hyperemia, which will occur in
some parts when the blood is driven out of others by the contraction
of their vessels. Rosenthal is inclined to ascribe the chief power to
the former of these causes. Everybody knows the beneficial effect of
cold baths, cold sponging, etc., in "hardening" persons, as it is
termed, so that one who employs them is able to face almost any
weather, and to endure sudden changes of temperature without injury.
Rosenthal believes that by these means the tone of the cutaneous ves-
sels is increased, so that they do not become so much relaxed by heat
as to be unable to contract with sufficient force, when necessary. The
power of regulating the temperature is thus preserved, and the person
is protected from catching cold.

BLACKLEY ON THE CAUSES AND NATURE OF CATARRHUS ESTIVUS (HAY-
FEVER OR HAY-ASTHMA).—The London Medical Record, June 18, 1873,
contains an account of the investigations of Mr. Blackley, as recorded
in a recent publication, regarding the causes and nature of hay-fever.
For more than twenty years, the author has been a sufferer from the
distressing malady of which he writes.
Mr. Blackley's experiments appear to show that the inhalation of the pollen of various plants, suffices to excite the disease; and that whenever the disease occurs, there is a direct relation between the severity of the symptoms and the amount of pollen floating in the air. Experiments were made with the pollen of the grasses, and also with that of plants belonging to thirty-five other natural orders. Almost every experiment was attended with such definite results as to show that pollen is the most powerful, if not the sole cause of the malady. Pollen was tested in five different ways: (1) by applying it to the mucous membrane of the nose; (2) by inhaling it, and thus bringing it into contact with the mucous membrane of the larynx, trachea and bronchial tubes; (3) by applying a decoction of the pollen to the conjunctiva; (4) by applying the fresh pollen to the tongue, lips and fauces; (5) by inoculating the upper and lower limbs with the fresh moistened pollen.

When a small portion of pollen, just sufficient to tinge the tip of the finger yellow, was applied to the mucous membrane of the nares, some of the symptoms of hay-fever were invariably produced, the severity and continuance of which were dependent on the quantity applied, and the frequency with which the application was repeated.

In all the observations on pollen, the author was the subject of his own experiments. Obviously it would have been futile to experiment on any subjects not possessing the idiosyncrasy which renders them liable to hay-fever. When pollen is moistened, it may be seen under the microscope, to change its form, swell up, and forcibly discharge its granular contents; and it is probable that this process occurs when the pollen is brought in contact with the nose and air-passages; and thus the fluid, which is poured out abundantly during a severe attack of summer catarrh, tends to increase and perpetuate the disease, by acting rapidly upon the pollen, which continues to be brought into contact with the irritated mucous membrane.

The author has found that pollen may, by dialysis, be made to pass through membranes thicker than those which line the bronchial tubes and air-cells; and he suggests the probability that the finer particles of this matter may, in some cases, pass through the mucous membrane of the air-passages, and thus entering the circulation, give rise to the constitutional symptoms which are sometimes developed. He has also shown a direct and constant relation between the amount of atmospheric pollen and the intensity of the symptoms in his own case.

He exposed slips of glass, so prepared that the atmospheric pollen should adhere to them, in the open air, for twenty-four hours at a time. These slips were then placed under the microscope, and the number of pollen-grains contained in equal areas counted. The result showed a continual increase in the amount of atmospheric pollen in the open country, from the beginning to towards the end of June, while the grass is in flower, and after this a gradual decrease. More atmospheric pollen is found in the open country than in the suburbs of Manchester, England—near which city most of the observations were made—and more in the suburbs than in the centre of the city. The gradations in the severity of the author's symptoms, corresponded very closely with his microscopic observations of the amount of atmospheric pollen. In other respects, too, there is a close correspondence between the varying severity of the disease and the amount of pollen in
the air; thus, the symptoms are usually more severe on a hot and dry day, and often much mitigated by a comparatively cold and damp atmosphere; they are much milder within doors than when the patient is exposed to the open air. Hence some observers have concluded that a high temperature alone may be sufficient to explain the increased severity of the symptoms, but Mr. Blackley’s explanation seems more satisfactory. He shows that, on a hot day, the pollen is more abundantly developed and thrown off into the air; and it is obvious that active exercise, by increasing the number and force of the inspirations, will bring into the air-passages a greater quantity of the irritating organic matter, which is the exciting cause of the malady.

The author believes that the dyspnoea of hay-asthma is the result of submucous œdema excited by the irritant action of pollen; and he doubts whether bronchial spasm has any influence in causing the phenomena of the disease. From this, the reviewer, Dr. Johnson, dissents. He believes that the theory of bronchial spasm alone suffices to explain the paroxysmal dyspnoea of hay-asthma, as well as of ordinary so-called spasmodic asthma.

After trying a great variety of remedies, Dr. Blackley has found none productive of permanent benefit. The only advantage derived from drugs has been the palliative influence of belladonna or opium ointment applied to the nostrils. The best means of escaping the disease is to take a cruise well out to sea during the hay-asthma season, or to go to a projecting part of the sea-coast where the prevailing winds are from the sea. For those who cannot go to the sea-side, the next best residence is the centre of a large town.

SECONDARY SYPHILIS COMMUNICATED BY AN INFANT TO ITS NURSE.—Dr. Angus Macdonald reports a case in which secondary syphilis was communicated by an infant, suffering from hereditary disease, to its grandmother, a woman 59 years old. The affection appears to have been communicated by means of the tube of the child’s nursing bottle, which the grandmother was in the habit of putting to her own mouth before applying it to the mouth of the child. The symptoms consisted of a severe sore throat and a general eruption on the skin, distinctly syphilitic in character.—_Edinburgh Med. Jour._, July, 1873.

Correspondence.

SEA-SHORE DOCTORS.

DOWN EAST, July 20th, 1873.

MESSRS. EDITORS,—Do you know what a sea-shore doctor is? I came very near saying country doctor, but, like some other titles, it might confuse. So I say sea-shore doctors, though they live in the country at times. The habitat of the true country doctor is in the country. He is there at all times. The other is a bird of passage, living in the city for nine or ten months in the year, and going off for a summer vacation—sometimes here, again there; to the Farms this year, to the Spyglass House another year, spending a few weeks in Sweet Potato Valley, or perhaps at Chicopee Harbor. His real residence is Boston, New York, or some of our larger towns. He doesn’t do much at home, though he talks about his business pretty largely; and we poor country doctors wonder how he could leave for so long a time with so large a practice, till we find him out.
You will find him on the piazza of the Mambrino House, this evening; between a couple of your city ladies, to whom he is as attentive as if he hadn’t a wife and children at home. He will be telling of the consultations which professors of surgery, &c., have asked for with him—the consequence of certain peculiar cases published by him. Us, poor devils, he thinks very little of. Mrs. Parnassus wanted me to call him in to see her child a day or two since. The child was taken sick before his arrival here, or I probably should not have had the case. He spent the time delivering a lecture to the lady and myself, clinical lecture, in which he detailed the diagnosis of cholera Asiatica and cholera infantum. He doesn’t believe in homoeopathy, but thinks it very unfair not to try it, if patients desire. He was terribly startled, last year, by a case of variola, and was the means of clearing out the Gammon Hotel, he being obliged to leave on business of importance—called away, &c. I saw the patient shortly after. The eruption was very abundant, but he had made a perfectly excusable mistake. Thus toxicodendron, I think Dr. White would call it. How much better it was to make this mistake than it would have been to call smallpox “ivy pizen.”

After all, the sea-shore doctor does not annoy the country doctor very much. His stay is very short in any one place, not over six or eight weeks, and generally less than that. How much he may bother you city gentlemen, is another question. If he manages to get hold of an anxious mother, whom he can frighten or cajole—impose upon in any way—I can imagine that he may make mischief for a time. From what I have heard of him, I know that if the patient returns home sick, our sea-shore friend follows him, continues to prescribe; never remembers that there is a family physician in the case, and sometimes has to be discharged. Even then, I am told, that he speaks of “Dr. —’s irregular behavior in prescribing for my patient.”

One of these doctors left here, the other day, and one of his patients fell into my hands. It was one of those who always employ a follower of Hahnemann at home. The little pellets which had been left made the patient a little stupid. The bottle was marked Bry. Now I am no chemist, but taking them myself, as by the Dr.’s direction to the patient, I proved them to be something very like an opiate:—dry tongue, loss of appetite, hoarse voice for an hour or two, itching skin, constipation for two days, strange propensity to sleep, and in that sleep to dream. I believe it was the 30,000th potenz, if it was anything, it affected me so potentially. Did you ever take any Bry?

Very truly yours,

COUNTRY DOCTOR.

Obituary.

At a meeting of the members of the Massachusetts Medical Society resident in Lawrence, the following resolutions on the death of their late brother, Dr. Seneca Sargent, were adopted:

Whereas, Dr. Seneca Sargent, an esteemed member of our Society, who, by his untiring labors for the advancement of professional interests, and the development of medical science, won the respect of all who knew him, has been removed by death; therefore.

Resolved, That the members of the Massachusetts Medical Society, resident in Lawrence, most deeply mourn his death, and kindly sympathize with the family of our late brother, believing, as we heartily do, that our Society and the community at large have lost an eminent physician and worthy citizen, one ripe in years, who has rendered his name worthy of respect and of grateful remembrance.

Resolved, That a copy of these resolutions be transmitted to the family; also, to the Boston Medical and Surgical Journal, and to the local papers.

WM. D. LAMB,
D. DANA,
C. N. CHAMBERLAIN.

Lawrence, Mass., Aug. 11, 1873.

C. C. TALBOT, Sec.
Quick.—They have rather a rapid way of living and dying in Memphis. Dr. Miller, of Atlanta, who was in Memphis while the cholera prevailed there, narrates a sprightly incident. At 7 o'clock a man went to market and bought his breakfast, went home, cooked it, and was eating it, when he was taken with cholera. He sent for Dr. Miller, who visited him at 9 o'clock, prescribed, and told him he would be back in an hour. At a quarter past 10 he returned. The man was not only dead, but had been buried, and the room swept and garnished for another occupant. What could Dr. Miller have given him?—New York Tribune.

“Quosque tandem!”—Records of chloroform deaths are as frequent as ever in the Journals. We quote one from the Clinic:—

A most lamentable accident occurred in the office of Dr. Wm. H. Mussey, of this city, on last Wednesday afternoon. A young and apparently healthy German presented himself to have three or four fingers dressed after an accident by machinery. Chloroform was administered and before full narcosis was established the patient was seized with convulsive tremor and immediately succumbed.

The Chair of Physiology at Edinburgh.—It is stated the chair of Physiology in the University of Edinburgh is likely to become vacant by the resignation of Dr. Hughes Bennett, whose health is, unfortunately, far from robust. The names of four distinguished graduates of the University—two resident in Edinburgh, and two in London—are mentioned as those from among whom his successor may be selected. But we believe that, although it is probable that Dr. Bennett will think it proper to resign his chair at no distant date, it is by no means certain that he may not make another effort to perform some of its duties next session.—British Med. Journal.

Death from Heat-stroke in a Vapor-Bath.—An inquest was held at Stratford, Essex, a few days ago, on the body of a man who died while taking a vapor-bath in the public bath-rooms of the locality. The temperature of the bath at the time of the occurrence was not, according to the evidence of the proprietor of the rooms, above 110°; but Drs. Whitehouse and Kennedy, who had examined the body soon after death, expressed their belief that it could not have been less than 200°. The jury returned a verdict of “Death from coma, accelerated by the use of an over-heated bath.”—London Lancet.

Energy of the Board of Health of Boston.—The board of health has begun to take active measures in regard to unhealthy tenement houses, and has determined to enforce the law rigorously. Yesterday a number of places were visited, causing considerable consternation among both owners and occupants. On Hammond park the board visited a block of four houses, with a carpenter, who bored holes in the floors, beneath which were found accumulations of the most stagnant and offensive water. These houses were numbered 57, 59, 61 and 63, and were rented in flats. One family has been sick ever since they entered the block, and one tenement was found in the worst possible condition of filth. Orders will be issued to-day to have the houses purifed. The board visited a block in Westminster street, numbered from 20 to 36, under the cellar floors of which they found, after having them taken up, more or less stagnant water, which exhaled the most offensive and fever-breeding odors. These houses average two families, but so offensive has the atmosphere become that many of the tenants have packed their furniture and are moving out. The houses numbered from 9 to 21 Windsor street were also visited by the board. Their condition was such as to justify the most prompt and effective action, and steps will be taken to put them in a condition fit for occupancy.—Advertiser, Aug. 14.
MEDICAL AND SURGICAL JOURNAL.

EXERCISES ON ANÆSTHESIA.—We find in the Buffalo Medical Journal the following curious programme of a public lecture on Anæsthesia, lately delivered in New York.

"Order of Exercises.—Organ Voluntary. History of Anæsthesia, Dr. J. Marion Sims; Chemistry of Anæsthetics, Prof. R. Ogden Doremus, M.D., with Experiments. Practical Application of Anæsthetics in Surgery, Professor Frank H. Hamilton, M.D. Address by Rev. Henry Ward Beecher. Organist, Mr. Walter. Mayor Havemeyer will preside. For this occasion Mr. William Steinway has kindly tendered the use of Steinway Hall, Wednesday evening, May 21st, 1873, at 8 o'clock."

It is a curious illustration of the difference of "the point of view," that this display was promoted by a number of the most eminent physicians and citizens of New York, and evidently suggests to their mind nothing which savors of the ludicrous or unseemly. No one would be bold enough on this side of the water to attempt what appears to us as incongruous a series of "exercises" as were ever presented on the boards of a theatre.—Brit. Med. Journal, July 19, 1873.

WOMEN STUDENTS AT ZURICH.—The Russian decree relative to women students at Zurich, has produced great excitement in that town. All the newspapers are unanimous in condemning the arbitrary conduct of the Russian Government in the matter, though several of them admit that the Russian women students often behave in a manner discreditable to their sex. One of the professors of the university of the town observes, in a letter to the New Zurich Gazette, that the expulsion of the Russian women from the university will probably be followed by a large increase in the number of the women students from other countries, as German, French, and English women have hitherto been deterred from going to Zurich for their education by the improper behavior of the Russian women who attend the lectures there. A correspondent of the Cologne Gazette asserts that upwards of one-half of the Russian women students at Zurich live disreputably, and that many of the Swiss families in the town have consequently refused to receive them in their houses. That some belong to secret political societies is also a matter of notoriety; one of them even acted as vice-president at a "red" meeting of working men. The Russian women students have now decided, after some stormy meetings, that all but two shall leave Zurich next term, and proceed for the completion of their studies to Paris, Leipzig, Munich, and Heidelberg.—Medical Press and Circular.

MORTALITY IN MASSACHUSETTS.—Deaths in sixteen Cities and Towns for the week ending August 9, 1873.


Prevalent Diseases.—Cholera infantum, 146—consumption, 50—diabetes and diarrhoea, 25—scarlet fever, 13—cholera morbosa, 10.

Four deaths from smallpox occurred in Holyoke.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, August 16th, 1873. Males, 88; females, 109.

Accident, 1—apoplexy, 1—asthma, 1—infarction of the bowels, 4—disease of the bowels, 1—bronchitis, 3—infarction of the brain, 2—cancer, 4—cerebro-spinal meningitis, 1—cholera infantum, 2—cholera morbus, 3—consumption, 25—convulsions, 4—cyanosis, 2—debility, 4—diabetes, 1—dropy of the brain, 3—diabetes, 4—diaphtheria, 2—cerebrospinal meningitis, 1—scarlet fever, 7—typhoid fever, 5—gangrene of the lungs, 1—disease of the heart, 6—insanity, 1—infarction of the liver, 3—congestion of the lungs, 1—infarction of the lungs, 1—meningitis, 4—nervousness, 8—old age, 5—paralysis, 4—premature birth, 4—pyemia, 1—peritonitis, 4—aemorrhagia, 1—neurasthenia, 1—rheumatism, 1—anhathia, 1—febricula, 1—whooping cough, 1—whooping cough, 1—unknown, 8.

Under 5 years of age, 111; between 5 and 10 years, 8; between 20 and 40 years, 35; between 10 and 60 years, 19; over 60 years, 21. Born in the United States, 140—Ireland, 37—other places, 2,0.
ON THE SMALLPOX EPIDEMIC IN BOSTON, IN 1872-73.
Read before the Massachusetts Medical Society, June 3, 1873.
By M. E. Webb, M.D. Bowd., of Boston.

It is not the intention in this paper to enter upon a scientific discussion of smallpox, but simply to give a short report of the origin, progress, abatement and general management of the disease as it existed in Boston for sixteen months, commencing January 1st, 1872, and ending May 1st, 1873. This will be presented in the form of facts, with a few statistics; leaving the conclusions to be drawn from them, in the main, to others.

It should be stated, however, at the outset, that prior to January, 1872, during at least six months, sporadic cases were continually occurring among newly arrived emigrants, or those receiving the contagion from them, and in persons who had visited Lowell during the prevalence of an epidemic there. This relates only to patients treated in hospitals, but I am informed that there was a larger number of cases existing in the city during the year 1871 than was generally supposed, but there were few removals to hospitals, and no records of cases kept. Judging from the fact that there were but few deaths, we infer that the type of the disease was exceedingly mild. It increased somewhat during the autumn, but it was not until the time at which this report commences that the disease assumed an alarming aspect or that a general removal to hospital commenced.

The only hospital accommodations existing at that time within the city limits were eight beds at a house on Albany street, in the rear of the City Hospital, and under the charge of the directors of that institution. These, however, were only for patients who could pay fifteen dollars per week, the only free beds being at Galloupe's Island; this island was used, also for quarantine purposes, and, it is needless to add, was inadequate to meet the wants of an epidemic, wholly unfit for the proper treatment of the disease, the transportation of patients endangering the lives of those very sick and no doubt causing many deaths. Moreover, the place was strongly objected to by all classes, associating it, as they did, with the neighboring penal institutions; the removal by force to such a place, was look-
ed upon as a system of cruelty exercised upon the helpless. This was early and fully realized by Dr. Green, City Physician, who represented it in its true light to the City Council; and in due time, an order was passed authorizing the trustees of the City Hospital to receive at the house on Albany street, without pay, such patients as were too sick to be removed to the Island, and such as would go willingly when they would not be taken from their homes to the island without the exercise of force. An old building, formerly used as a hospital for cholera, upon the same grounds and adjoining the Smallpox Hospital, was partially fitted up; and these two buildings, which could be crowded to a capacity of fifty beds, were sufficient to accommodate all patients prior to July, 1872, except those exempted by law, or others from tenement houses who could not be removed without endangering life. Poor as this was, and disgraceful as it was that a city like Boston should have no better accommodations for the care of unfortunates suffering from this dread malady, it was infinitely better than nothing—better than the Island, which was the next thing to it; and it undoubtedly prevented a general epidemic at that time with a large loss of life.

In the midst of the good work which this place, bad as it was, was undoubtedly doing, the citizens in the vicinity, bringing into service newspaper sensationalism which portrayed the horrors of having a pest house in this locality (although there never was a case of the disease traceable to it), so excited the public that a petition was extensively signed to have this nuisance abated. The City Council, after a whitewashing investigation (the principal thing being to justify their own neglect, and to throw the responsibility upon somebody else), gracefully yielded to public clamor and closed the only place they at that time possessed, without a prospect of having another; at the same time frowning upon a petition signed by hundreds of the citizens who fully appreciated the situation, and asked for the establishment of an independent Board of Health.

From the time the Albany Street Hospital was closed, there was a steady increase of the disease; the poorer classes, living in crowded localities, secreted their friends, sometimes not even employing a physician for fear that the sick one would be sent to the Island, and often a reported death would be the first intimation the authorities had that the disease existed in a certain locality. Then, of course, the information came too late to avail anything. Fumigation was performed by the Health Office, the so called Board of Health establishing the price for its performance at three dollars for one room or five dollars for a whole tenement; and the Superintendent of Health was not expected to perform this duty without the payment of this fee, or on special order from the Board. This duty was efficiently performed, however, and if this officer had had entire charge of the Department, and had not been crippled by the red tape of higher
powers, the health affairs of the city would have been much more successfully and satisfactorily managed. As it was, the tenants were, in many instances, too poor, and the owners were too puerile to pay the sum demanded, and thus a large number of infected dwellings were left with no precautions whatever taken to disinfect bedding, clothing, &c., or the disinfection was partially performed by the ignorant tenants themselves.

Is it surprising that, under these circumstances, the poison was rapidly disseminated? In spite of the untiring devotion of Dr. S. A. Green, the City Physician, who sacrificed personal as well as professional interests to battle alone the advances of this enemy, and who was often openly and bitterly opposed by those in authority in whose interest he so arduously labored, pestilence walked in our streets, rode upon our horse-cars, visited our hotels and public buildings, and our tenement houses, dirty and filthy as many of them were before, now became hot beds for contagion. Against 91 cases and 32 deaths reported for the month of July when the Albany Street Hospital was closed, we had 872 cases and 246 deaths reported for the month of December, the same year.

Thus, this obstinate do-nothing policy continued, and on that policy lies the responsibility, in a great measure, of a large loss of life, a material injury to the business interests of a city crippled by a great conflagration, a harvest field from which the poison was scattered throughout the towns all over the Commonwealth, as shown by the last report of the State Board of Health. Approaching elections, however, and the general cry from all classes of citizens for reform, warned the authorities that some efforts must be exerted to stay the spread of the disease; and a large force of vaccinators were engaged to perform house-to-house vaccination. This force, unorganized and without systematized responsibility, entered upon its duty, but the result was far from satisfactory, so far as checking the ravages of the disease was concerned, and, with one or two exceptions, no records of importance were kept.

Meanwhile a piece of swamp land had been purchased on Swett street and a hospital erected which, unfortunately, was burned the night before it was ready for occupancy. Of this building, I know nothing; but the one that rapidly succeeded it, while it was undoubtedly better than none, was unfit, both by its location and appointments, for the satisfactory treatment of the disease.

In time, a new City Government was formed which, fortunately for Boston, consisted mostly of new members, fully alive to the emergency. Encouraged by the heroic action of the mayor, who knew his duty and dared to act, the City Council did what the old City Government for six months had repeatedly refused to do, namely, established a Board of Health independent of party or power. One of the first official acts of this Board was to take possession of the Roxbury almshouse as a hospital; this building
proved capacious enough, with the one upon Swett street, already opened, to meet every demand. A corps of vaccinators was immediately organized and made responsible for the vaccination and re-vaccination of all classes. The result was highly satisfactory. The disease rapidly subsided under the combined effects of isolation and vaccination, and in three months the epidemic was conquered and public confidence was fully restored.

Having thus alluded to the rise and fall of the epidemic, I will add a few statistics bearing upon the disease, as well as to substantiate the assertions made. They are taken from the records of hospitals in this city, from those of Galloupe's Island and of the Health Office. The only record of those not removed is the bare fact that they had smallpox, and the City Registrar's office shows that nearly one-third of them died.

The number of cases of smallpox reported during the time embraced in this review was 3,722.

The whole number of deaths resulting from it was 1,026.

The percentage of mortality was 27.56.

These figures are sufficiently large to show the severity of the epidemic, exceeding the percentage of either New York or Philadelphia death-rates.

The unusual virulence of the disease is also shown by the large number of hæmorrhagic cases which occurred. Of the 1232 cases in hospitals, we find 97 of the hæmorrhagic form, or 7.58 per cent., all of which proved fatal. There was a still larger proportion among those not removed; but allowing the same percentage for the whole number of cases, we have 282 deaths from this, the most fatal form of the disease. There were a few cases that had a hæmorrhagic tendency in the earlier stages of the disease, but the eruption abated early, and the patients recovered. True cases of this kind have always died, in all the instances witnessed. It occurred most frequently in vitiated constitutions, syphilics, drunkards, prostitutes, &c. Males and females suffered equally. The middle-aged seemed more liable to this form than the old, while it has been very rare in children; in fleshy people, it occurred rather oftener than in the emaciated. The prodromata were generally more marked than in the milder or even severe forms. Extreme prostration came on rapidly, followed by an erythema over the entire body, assuming a lobster red color. The conjunctiva was injected with blood, with here and there papules or later vesicles filled with the bloody serum characterizing the disease.

On the second day of the eruption, sometimes earlier but seldom later, hæmorrhages from the mucous surfaces would take place,—in males, from the mouth, fauces, bladder and rectum; in females, invariably from the uterus. If a woman was pregnant, she miscarried early and died from excessive hæmorrhage. It has not proved so contagious as milder forms; and there was always a
peculiar odor, not experienced in either the discrete or confluent varieties. The diagnosis was, in some cases, difficult, from the resemblance to other exanthemata, and because the characteristic appearances would not become evident till the patient was moribund or even dead; and sometimes they were discovered, even then, only by diligent search over the entire body.

(To be continued.)

TEMPERATURE IN YELLOW FEVER.

By Joseph Jones, M.D.,
Professor of Chemistry and Clinical Medicine in the Medical Department of the University of Louisiana, Visiting Physician of Charity Hospital, New Orleans, La.

The following table contains the results of my own observations upon the pulse and temperature in yellow fever, consolidated with those of several other observers; viz., W. Arnold M.D.,* Charles Faget, M.D., D.M.P. &c., 159 Burgundy street, New Orleans; Just Touatre M.D., D.M.P., 142 Damaine street, New Orleans; and Thomas Layton, M.D., D.M.P., Magazine street, New Orleans.

My thanks are especially due to my learned and distinguished confrère, Dr. Chas. Faget, for the opportunity of examining the careful thermometric records preserved by himself, and Drs. Touatre and Layton, during the epidemic of 1870.

The general results of my investigations upon the changes of temperature and conditions of the pulse in yellow fever may be formulated thus:

The maximum elevation of temperature, in yellow fever, is rapidly attained upon the first, second and third days of the disease, ranging from 102° F., to 110° F., in the axilla; and, as a general rule, from the third to the fifth day, steadily falls, and sinks down to the normal standard and even below; in some fatal cases, it rises again towards the end, rarely, however, reaching or exceeding, during the stage characterized by passive hemorrhages, black vomit, jaundice and urinary suppression, 104° F.; and, as a general rule, never attains the high degree of temperature characteristic of the first stage of active febrile excitement.

The supervention of an inflammatory disease, or the occurrence of an abscess, or the access of malarial fever, after the first stage of active febrile excitement, may, in like manner, cause a progressive elevation of temperature, with slight evening exacerbations.

The pulse, at the commencement of the febrile attack, is rapid and full; the increase in the frequency of the pulse does not, however, as a general rule, continue to correspond with the elevation and oscillations of temperature, as in many febrile diseases; and, in many cases of yellow fever, the remarkable phenomenon is

### Tabular Statement of the Variations of the Pulse and Temperature in Yellow Fever.

<table>
<thead>
<tr>
<th>No. of Case</th>
<th>Temp. and Pulse</th>
<th>Day of Disease</th>
<th>Results and Remarks</th>
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<td>Pulse: 108.5°</td>
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**Female.** Age 28. Intern. fever. Scarlet color of surface. Death on third day of disease.

**Male.** Death on ninth day.

**Male.** Death on seventeenth day.

**Male.** Death on eleventh day.

**Male.** Death on seventh day.

**Male.** Death on third day.

**Male.** Death on sixth day.

**Male.** Recovered.

**Male.** Death on sixth day.

**Male.** Death on fourth day.

**Male.** Death on eighth day.

**Male.** Recovered.

**Male.** Recovered.

**Male.** Convalescent on fifth day.

**Male.** Convalescent on seventh day.

**Male.** Case protracted, on account of formation of parotid abscess. Recovered. During fever, verat. virid. rapidly reduced pulse.

**Male.** Convalescent on fourth day.

**Male.** Convalescent on fifth day.
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**TEMPERATURE IN YELLOW FEVER.**

- Adult male. Case protracted by abscess in elbow, which appeared on third day. Convalescent on seventh day.
- Veratum viride, in twenty-drop doses, rapidly reduced the pulse.
- Male. Convalescent on seventh day.
- Adult male. Age 63. Died fifth day of disease.
- Male child. On fourth day, attack of indigestion caused rise of temperature. Convalescent on sixth day.
- Death on fifteenth day of disease.
- Eruption of urticaria appeared on fifth day, and caused oscillation of temperature. Convalescent on seventh day.
- Male. Age 32. Convalescent on seventh day.
- Adult male. Black vomit on fourth day. Death on fifth day.
- Adult male. Died on tenth day of disease. On ninth day, temperature fell rapidly from 102.2° to 98.5°, whilst pulse increased to 114. Adult male. Died in yellow fever.
- Male. Age 23. Convalescent on seventh day.
- Female child. Convalescent on seventh day.
- Female. Convalescent on seventh day.
- Adult male. Jaundice on 4th day. Black vomit on 6th day. Death on 11th day. After supervision of black vomit, pulse increased in freq.
- Adult male. Convalescent on tenth day.
- Male. Age 27. Convalescent on eighth day.
- Male. Age 22. Temperature fell from 106.5°, third day, to 101.5° fifth day. Death on fifth day.
- Male. Aged 33. Jaundice and black vomit preceded death. Temperature from 106.5°, 3d day, to 99.2° on day of death, 4th day.
TABULAR STATEMENT OF THE VARIATIONS OF THE PULSE AND TEMPERATURE IN YELLOW FEVER. (Continued.)

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<tr>
<th>No. of Case</th>
<th>Temp. and Pulse</th>
<th>Day of Disease</th>
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<td>104 104°</td>
<td>104° 104°</td>
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<td>Pulse, Temp. Fever.</td>
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<td>110 104°</td>
<td>108 101.2°</td>
<td>96 102°</td>
<td>86 102°</td>
<td>69 101°</td>
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<td>Pulse, Temp. Fever. Fever.</td>
<td>82 100°</td>
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<td>85 100°</td>
<td>80 98°</td>
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<td>46</td>
<td>Pulse, Temp. Fever. Fever.</td>
<td>100 105°</td>
<td>104° 104°</td>
<td>102° 102°</td>
<td>102 102°</td>
<td>101° 101°</td>
<td>101° 99°</td>
<td>130 140°</td>
<td>140 140°</td>
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<td>47</td>
<td>Pulse, Temp. Fever. Fever.</td>
<td>80 105°</td>
<td>72 104°</td>
<td>80 103.5°</td>
<td>80 103.5°</td>
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<td>48</td>
<td>Pulse, Temp. Fever. Fever.</td>
<td>84 100.5°</td>
<td>92 101°</td>
<td>80 100°</td>
<td></td>
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Results and Remarks.


Male child. Under veratum viride, rapid fall in pulse. Convalescent tenth day.

Female. Age 15. Temperature most elevated on fourth and fifth days. Convalescent on eighth day.

Male. Age 40. Jaundice on third day. Pulse depressed during jaundice. Temperature fell from 105°, third day, to 100.2°, day of death, seventh day.


Black vomit. Jaundice and urinary suppression. Death on sixth day.
witnessed, of the pulse progressively decreasing in frequency and
even descending below the normal standard, whilst the temperature
is maintained at an elevated degree; and, on the other hand, the
pulse frequently increases in frequency, but diminishes in force, near
the fatal issue; the occurrence of copious hemorrhages from the
bowels or stomach, may be attended with sudden depression of
temperature, and increase in frequency, but diminution in the force
and fulness of the pulse.

The remarkable progressive decrease in the number of beats of
the pulse, after the first stage of active febrile excitement, in many
cases of yellow fever, appears to be due to several causes, as the
anatomical changes in the heart (acute fatty degeneration), and the
retention in the blood of the bile and urinary constituents.

If the temperature of the trunk rises, in the first stage of yellow
fever, above 105° F., the patient is in imminent danger, and if it
reaches 107° to 110° F., death is almost inevitable whatever be the
mode of treatment adopted.

In cases attended with the rapid rise of the temperature to 106°
and beyond, in the first stage, death sometimes occurs suddenly, and
apparently solely from the effects upon the blood and nervous sys-
tem of the great elevation of the temperature, as in sun-stroke.

In the fact established by the preceding table, that an elevation
of temperature, above 106° in yellow fever, was invariably followed
by death, we have a powerful argument for the constant employment
of the thermometre, in the investigation of the phenomena of this
disease, as affording some grounds not only for prognosis, but also
for treatment.

In those cases which are attended with great elevation of tem-
perature, the physician should seek to diminish the excessive heat
by those measures which reduce the action of the heart, promote
free perspiration and directly reduce the heat of the surface; to
accomplish these ends, the most efficient remedies appear to be
veratrum viride, and the sponging of the surface with water, or with
a mixture of water, acetic acid and alcohol.

It appears, also, that the administration of an active purgative,
either calomel or castor oil, followed immediately by one or two full
doses of quinine, in the first twenty-four hours of the fever, produces
beneficial effects in unloading the portal circulation, and in control-
ling, to a certain extent, the production of animal heat.

In yellow fever, the profession needs, in future, accurate records
of the thermometric changes, as influenced in the early stages of the
disease, by the measures just indicated.

The preceding table also illustrates the fact, that jaundice, urinary
suppression and black vomit are often accompanied by a slow pulse
and but moderate elevation of temperature.

If the thermometric changes of yellow fever be projected upon a
chart, and if a comparison be instituted with the thermometric
changes of the other diseases, it will be observed that those of the former disease more nearly resemble the rapid rise and sudden fall of temperature observed in varioloid, without secondary fever, mild scarlatina, and simple uncomplicated pneumonia, which runs its course without fresh accessions of inflammatory action; whilst, on the other hand, they differ materially from the rapid and oft-recurring elevations and depressions of temperature characteristic of the various forms of malarial fever.

The cause of the rapid rise and sudden declension of the temperature in yellow fever must be sought chiefly in the changes induced in the blood, and in those organs upon which the circulation and integrity of the blood depend.

New Orleans, La., July 31, 1873.

A Physical Sign of Intestinal Perforation.—Dr. Spaggia relates, in the Gazetta Clinica dello Speciale Chirico di Palermo for February (quoted in The London Med. Record, May 14th), the case of a woman, aged twenty-five, who died in the hospital after having suffered for some days with symptoms of peritonitis and intestinal perforation. At the autopsy, the intestines were found agglutinated by exudation of not very firm consistence, and some pus lay between the convolutions. There were found in the small intestine, three perforations at considerable distances from each other, each about the eighth of an inch in diameter, having well defined edges next the interior of the tube, and irregular on the serous surface. Attention is specially drawn to the the existence of a sound which was heard on auscultation a little more than an inch below the umbilicus. It was synchronous with inspiration and expiration, being more distinct with the former than with the latter. It resembled the respiratory sound as heard at the sides of the vertebral column in the upper dorsal region. After commenting upon the mode of production of this sound, which he attributes to the passage of gas, into and out of the peritoneal cavity, through the perforations in the intestine, Dr. Spaggia arrives at the following conclusions:

1. A murmur synchronous with the respiratory acts, heard by auscultation on the abdominal wall, and resembling the respiratory sound in intensity and character, is a diagnostic sign of intestinal perforation. 2. The absence of this murmur is, however, no indication, when other symptoms of perforation are present, that this lesion has not taken place. The sound may be absent under various conditions, such as: (a) Extreme smallness of the cavity into which the perforation leads, especially if it be seated deeply in the abdomen, or removed from the ear of the observer by tumors lying anteriorly; (b) Closure of the perforation by a loop of intestine, or by a peritoneal tumor; (c) Intestinal adhesions; (d) The filling up, by previously formed exudation, of the cavity into which the exudation leads. This physical sign, noticed for the first time by Dr. Spaggia, is the more important in that its existence may clear up certain doubtful affections of the abdominal organs, in which it is a question whether gastrotomy shall be resorted to.
REPORT ON OBSTETRICS AND DISEASES OF WOMEN.

By W. L. Richardson, M.D.

[Concluded from p. 189.]

DISEASES OF WOMEN.

Intra-uterine Medication.—Dr. W. S. Playfair (Lancet, Jan. 4, 11, Feb. 15, 1873) opposes very strongly the use of intra-uterine injections. He believes that remedies can be applied to the interior of the uterus in a fluid state by a much safer method. After criticizing the various ways recommended by writers on this subject, he proposes to use swabs made in this manner:—a series of uterine probes must be made with metallic extremities measuring in length 2½ inches. They must be so fine that, when wrapped around with cotton wool, they will pass readily into the cavity of the uterus. These probes are attached to box-wood handles nine inches in length. The ends are made very flexible, so as to be easily made to conform to any flexion of the uterus. These probes must be wrapped smoothly and evenly with cotton wool. The os uteri is next exposed with whatever speculum is most convenient. The cavity of the uterus is then carefully wiped dry with one or more of these probes. This being done, a probe is next introduced, having been previously dipped in the agent to be applied. Care must be taken to wipe off any superfluous moisture, lest it run down into the vagina. The application of remedies in this way, if carefully made, is practically painless. As regards the particular agent to be used, there is great difference of opinion among writers on this subject. The best is a strong solution of carbolic acid prepared as follows:—add to the pure crystalline acid just enough water to keep it fluid (experience has shown this to be eighty parts acid and twenty parts water); an equal quantity of glycerine is then added; to the exterior of the cervix the pure fluid carbolic acid may be applied, but for the uterine cavity it is better to dilute it with glycerine. The great advantage which carbolic acid possesses over other caustics is that it never produces an eschar, nor does it cause the tissues to swell. In using it, therefore, we run no risk of causing any contraction of the cervical canal. The acid should be applied never oftener than once a week, and an interval of three or four days should always be left before and after the appearance of the catamenia. At first the application will often cause an increase in the amount of discharge from the uterus; but this soon subsides. The time required for the cure of a case of chronic uterine leucorrhœa varies greatly; and while one or two applications may be sufficient to effect a cure in one case, they may have to be continued for months in another.

Dr. Robert Barnes (Brit. Med. Jour., Jan. 11, 1873) strongly advises that the use of injections into the uterine cavity be given up in all cases of marked flexion. Even if the cervix has been first dilated with tents, he does not consider their use free from danger, for it is impossible to prevent the flexion recurring, in which case the fluid is prevented from escaping. It is especially in these cases that
the uterine cavity is usually enlarged and the Fallopian tubes dilated. Except in severe and urgent cases of menorrhagia, intrauterine injections should never be used. The same agents can be applied in other ways, the most preferable of which is in the form of an ointment or plasma.

Dr. John Clay (Lancet, Nov. 30, 1872, Feb. 1, 1873) recommends the use of an insufflator made very similar to that used for insufflating the larynx. The open end, however, must be provided with a movable bulbous head, as otherwise it would be plugged up with mucus while being introduced within the uterine cavity. The pressure on the rubber ball not only opens the end, but ejects the powder at the same time.

Dr. J. Whitehead (Brit. Med. Jour., Feb. 1, 1873) favors the application of remedies by means of Lallemand's porte-caustique. The ointment to be used is placed in the groove of the stilette, which is protruded after its introduction within the uterine cavity, and, by rotation, every portion of the mucous membrane can be reached.

**Prognosis in Cases of uterine inflammatory Diseases.** (Obstet. Jour. of Gr. Brit. and Ireland, July, Aug., 1873.)—Dr. E. J. Tilt considers that the danger to life from uterine inflammation is very slight, unless it gives rise to some complication such as ovaritis or peritonitis. The prognosis is bad if the patient comes of sickly parents, or has had herself an unhealthy girlhood, or other mucous membranes show a marked tendency to catarrhal inflammation. When the inflammation occurs in young women, as the result of a sudden checking of the menstrual flow, the prognosis is favorable, unless the passion of the patient be very strong, in which case relapses will be apt to occur. Occasionally, however, the inflammation comes on during the period known as the change of life or even subsequent to that; in these cases the prognosis is bad. Under the most favorable circumstances, the length of time required to effect a cure will be, to a certain extent, proportional to the duration of the disease before a proper treatment was begun. So long as the disease is limited to the cervix uteri, the prognosis is good, but the case is very different when the inflammation has passed from the cervix to the mucous membrane of the body of the uterus. If the body of the womb is found to be larger and harder than normal, the prognosis is very bad. Acute endometritis is a rare disease, and Dr. Tilt states that he has never seen a case of it where there were not evident signs of a pre-existing chronic inflammation of the body or neck of the uterus.

**Uterine Tumors.—** Dr. Keating recently reported (Amer. Jour. Med. Sci., July, 1873) to the College of Physicians (Philadelphia) the account of a case of uterine submucous fibroid treated successfully by means of hypodermic injections of ergotin. After the sixteenth injection, the tumor was reduced, by measurement, to one-third of its size, and had been crowded down upon the cervix uteri in its efforts to force itself through the os uteri. At this point, owing to the impaired health of the patient, arising from a serious anaemia consequent on frequent and prolonged haemorrhage and an acute attack of a prevailing influenza, the further use of the drug was for a time suspended. The injections were used almost daily, and were applied over the abdomen below the umbilicus. The formula used was as follows:—Ergotin, gr. xlv.; glycerine, aq. destil., 22 med. Syringeful (gtt. xx.) administered each
time. The injection was always attended with excessive pain lasting nearly an hour. Very little local irritation followed, care being taken to make the injections as deep-seated as possible.

Dr. John Ashhurst, Jr., gives also (loc. cit.) the details of a case of a submucous fibroid of the uterus treated in this same way. The formula used was: R. Ext. ergote ½ f., ½ jss.; glycerina, ½ j.; aquæ, ½ j. Of this preparation twenty minims were injected almost daily in the sub-umbilical region on one or other side of the linea alba. After sixteen injections, the tumor was found to have diminished one-half. The injections are to be resumed after a short interval of rest. Pain followed the injections in this case as in the case of Dr. Keating, but not severe enough, however, to cause the patient to make any spontaneous complaint.

In a very valuable article on Interstitial Uterine Fibroma (Gaz. Méd., Paris, 11, 1872), Dr. Abeille alludes to the mistakes in diagnosis which are constantly being made, as regards interstitial tumors of the uterus, from the neglect on the part of the attending physicians to make their examinations during menstruation. It is during this period only that these tumors can be readily detected, since then nature, in her effort to expel the tumor, pushes it downwards towards the cervix uteri, causing an unusual dilatation of that region. These tumors are by far the most dangerous of all uterine tumors, since they give rise to severe metrorrhagia and, owing to their peculiar position, are very easily overlooked in examinations of the uterus.

M. Gueniot, in a recent paper (Gazette Méd., Paris, 11, 1872) contributed to the Académie de Médecine (Paris), considers that so many cases have now been reported as to establish, beyond question, the fact that certain fibroid tumors of the uterus are absorbed and thus disappear. While the absorption of tumors is, as a rule, a slow process, yet, occasionally, they take on a rapid dissolution, some cases having been reported where very large myomata have disappeared within a few months. In cases where absorption does not take place, uterine myomata may disappear either by spontaneous expulsion or by gangrenous suppuration. The method of absorption is the only one which is free from danger, and the efforts of the attending physician should therefore be directed towards bringing about this termination of the disease. Reasoning from analogy, these tumors, before they can be absorbed, must undergo a fatty degeneration. The remedies to be advised therefore are such as are known to favor a fatty metamorphosis of tissue. Such agents are arsenic, phosphorus, lead, &c. The puerperal state of the patient exercises only rarely any influence on the absorption of these tumors.

Dr. R. C. M. Page reports (Med. Record, Feb. 1, 1873) a case of a fibroid tumor of the uterus which was absorbed during pregnancy, and entirely disappeared during the retrograde development of the uterus after delivery.

Dr. Wm. R. Jordan reports (Lancet, March 29, 1873) two cases, in which large fibroid tumors of the uterus were successfully treated by a method known as enucleation. In the first case, a large tumor occupied the anterior wall of the uterus, presenting no marked projection into the cavity. An incision was made at the lowest point of the tumor about half an inch in depth. The cervix uteri was also divided on a line with the incision. The tumor was gradually protruded by

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the expulsive efforts of the uterus, until, on the 19th day, it was found filling the cavity of the vagina, from which it was easily removed. In the second case, the tumor occupied the posterior and left wall of the uterus. A similar mode of treatment was adopted. Nature at once set up expulsive efforts, and the tumor (27 ounces) was found filling the vagina on the third day after the operation. Owing to the great size of the tumor in this second case, ergot was given for several days after the tumor was removed, to aid the contraction of the uterus and as a prophylactic measure against the occurrence of hemorrhage.

Ovarian Tumors.—Ovariotomy. Dr. J. Marion Sims has recently published (New York Med. Jour., Dec., 1872—April, 1873) two excellent papers on this subject. In them he very briefly alludes to the past history of the operation and to the various methods which have been proposed for the management of the pedicle. For twenty years, he has advocated the plan of tying the pedicle with silver wire, and still thinks that it is the best treatment thus far proposed, though he questions whether it will not be found better in the future to apply torsion to the arteries, or else obliterate them by the enucleation of the pedicle from the coats of the cyst. As regards the results of the operation, Dr. Sims thinks that the mortality is altogether too great. He claims that the death of most of the patients is to be attributed to septicemia. After carefully examining Mr. Spencer Wells's thirty-nine fatal cases, he considers that thirty-seven were the result of blood-poisoning, three being from pyæmia, and thirty-four from septicemia. In all of these fatal cases, in which a post-mortem examination was made, a quantity of reddish serum, or grayish turbid serum or acrimonious serum was found in the peritoneal cavity. It is to these pent-up fluids that the blood-poisoning owes its origin. It seems, therefore, logical that the indication for treatment in these cases is to invent some method of draining off these poisonous fluids. As early as 1855, Dr. Peaslee ("On Ovarian Tumors," page 509) used intra-peritoneal injections with a view to remove any accumulation of fluid within the peritoneal cavity. Instead, however, of occasionally washing out the cavity at the top, as Peaslee proposed, Sims advises that the peritoneal cavity should always be opened at the bottom, so that the fluids may constantly drain off. This opening should be made at the lowest point, namely through the Douglas cul-de-sac. Here a puncture should be made, in every case, and a tube passed into the peritoneal cavity so that all effusions into this cavity may spontaneously drain off.

As showing the advantage of this plan of treatment, he gives the details of four cases in his own practice where he used this plan for establishing a drainage. In the first case, a sero-sanguinolent fluid began to pass off by the tube very soon after the operation. Occasionally, a little warm water was thrown into the peritoneal cavity, by the vaginal portion of the tube. The case made a good recovery. The second case also recovered. In the third case, the proper tube was not used, and the patient died. The fourth case did nicely, the drainage-tube being worn for about a month.

Great care must be taken, in these cases, that the puncture shall be made at the lowest part of the Douglas cul de sac. In washing out the peritoneal cavity the utero-vesical pouch must be carefully washed out, so that its contents (if any) shall overflow into the
Douglas cul de sac. If care be taken in reference to these collections of fluid in the peritoneal cavity, one great source of septicæmic poisoning will be removed and the mortality which follows the operation of ovariotomy will be very greatly reduced.

Dr. A. Wernich (Berlin) gives (Beiträge zur Geburtshülfe und Gynäkologie, vol. 11, 2, pp. 143-149) an excellent résumé of the various opinions held by leading obstetricians as to the prognosis in cases of ovarian tumors when complicating pregnancy. In a case under his own care, an abdominal tumor, which had existed for some time without causing the patient any trouble, became the seat of the most violent pain a short time before delivery. Three weeks after delivery, the patient died and the tumor was found to be an ovarian medullary carcinoma. The writer thinks that very probably this tumor, originally benign, became under the influence of pregnancy transformed into one of a malignant character. Many writers, amongst whom may be mentioned Spiegelson, Waldeyer, Rokitansky, Virchow, Wells and Hicks, have reported cases in which ovarian tumors took on a rapid growth during pregnancy, and after death were found to be malignant in character. These cases induce the author to approve of the conclusions reached by Dr. Wiltshire (London), who advises the extirpation of a multilocular ovarian tumor as early during pregnancy as the diagnosis of its existence can be established. All other methods of treatment he considers useless.

Dr. Ollier (Orleans) gives the details of a very remarkable case of pregnancy following ovariotomy (Revue Méd. Française et Etrangère, Dec. 28, 1872). The patient had been four times pregnant. For some time she had suffered from ovarian disease and three times had been tapped for the ascites occasioned by it. Subsequently, ovariotomy was performed and the tumor, which was found to be unadherent, was removed. The woman made a good recovery, and, three months after the operation, became pregnant. At the end of nine months she was delivered of twins.

Dr. Tillaux reports a case (Gazette Hebdomadaire, 12, 1873) of a unilocular ovarian cyst successfully treated by puncture through the wall of the vagina. The operation was followed, the first time, by the evacuation of about six pints of a fluid resembling in color café au lait. Tincture of iodine and water (2-1) was injected into the sac. A month later, as there were some symptoms that the sac was refilling, a second puncture was made and a pint of fetid pus evacuated. A tube was left in the sac, which was frequently washed out with solutions of carbolic acid. A month later, the sound was withdrawn. She has since been frequently seen, but there is no return of the trouble.

Les Ovaıres et leur anomalies, par Le Dr. Albert Puch; Paris, 1873, pp. 155.—In this most exhaustive monograph, the writer gives a complete history of the various anomalies which have been observed in reference to the ovaries. A full report is given of twenty-eight autopsies, in which some anomaly was found. The conclusions reached are thus briefly summed up:—The absence of one ovary is not very uncommon; usually, however, other anomalies are also noticed. The accompanying complications are usually the absence of the Fallopian tube, the broad ligament, the round ligament, the uterine cornua, and the kidney of the side corresponding to the missing ovary. In ten cases out of twenty-one, the Fallopian tube was found
either as a solid cord or in its normal condition. In half of the cases, the uterus was normal. As a rule, the vagina, vulva and pelvis were normal. The breasts were normal, except in two cases. The rest of the body was normal in some of the cases, while, in some, other anomalies were noted. The absence of the ovary is in no way incompatible with the perfect health of the woman.

Change of Life. (Deutsche Klinik, 5, 1873.)—Dr. Cohnstein, having made numerous inquiries as to the circumstances attending that period in a woman's life known as the "climacteric," has arrived at the following conclusions:—Menstruation is a physiological function, occurring between the ages of ten and forty-four. With the majority of women, the catamenia occur during a period varying from twenty-eight to thirty-four years; the average duration being thirty-one years. In 76 per cent. the menopause is gradually reached, the symptoms be-tokening its approach lasting from a month to two years. In 24 per cent. it is suddenly reached, such a termination being especially noticed when the sanitary conditions of the patient are unfavorable. The catamenia last longest in those women who menstruate early, who have more than three children which they nurse themselves, and are confined between the ages of thirty-eight and forty-two.

Amenorrhoea resulting from undeveloped Uteri. (New York Med. Jour., June, 1873.)—Dr. W. II. Baker alludes to the insufficient attention which has been paid to the want of development of the uterus as a cause of amenorrhoea. In cases where there was a general undeveloped condition of all the reproductive organs, a corresponding want of development of the uterus has been noticed. In some cases, however, where the mammae and the external organs of generation are normal, a careful examination will show that the uterus is undeveloped, and hence the amenorrhoea.

He cites three cases which came under his notice at the New York State Woman's Hospital, where galvanism or electro-magnetism were successfully used in the treatment of this condition.

Convulsive Diseases of Women. (Obstet. Jour. Gr. Brit. & Ireland, July, 1873.)—Dr. Barnes, in his Lumleian Lectures on this subject, stated the following propositions, as containing the main facts known in regard to the convulsive diseases of women.

1. Pregnancy and labor require for their due fulfilment an extraordinary supply of nerve-force.
2. This extraordinary supply of nerve-force implies a corresponding organic development of the spinal cord.
3. The provision of an extraordinary supply of nerve-force implies a greatly augmented irritability of the nervous centres, rendering them more susceptible to emotional and peripheral impressions.
4. The disturbances in nutrition, occasioned by pregnancy, almost always entail some alteration of the blood, which increases the irritability of the nervous centres, and favors the evocation of any latent convulsive or other nervous diathesis, as chorea, epilepsy, or vomiting.
5. When the blood-change wrought by pregnancy is marked by albuminuria, a poisonous action of peculiar intensity is exerted upon the nervous centres tending to produce eclampsia.
6. Obstinate vomiting in pregnancy probably sometimes proves fatal, by the development of an unknown organic or systemic morbid process.
7. Menstruation resembles pregnancy, in giving rise to an exalted central nervous erethism, and ovulation is a primary exciting cause of epileptic, vomitive and hysterical convulsions.
8. At the climacteric age, again, there is a renewed susceptibility to convulsive diseases.
9. Pregnancy, by evoking or producing convulsive diseases, under certain known and passing conditions, puts to the test the various theories of the pathogeny of these diseases.
10. The rational treatment of these diseases in women, must take into account the two great factors in the production of these diseases, viz.:- an exalted nervous irritability under the stimulus of the reproductive function, and lowered or empoisoned conditions of the blood.

**Bibliographical Notices.**

**Observations on the Surgical Treatment of In-growing Toe-nail.**


The proper surgical treatment of in-growing toe-nail, as it is commonly called, has of late attracted more than usual attention; and medical journals, at home and abroad, have recently published many suggestions for the cure of this troublesome complaint. An affection which compels the sufferer to be laid up for days, at irregular and inconveniently frequent intervals; which entirely prevents walking, or permits it with great distress; which deprives the patient of sleep; surely such an affection is worthy of persistent efforts for an effective remedy. Operative treatment in such a case may not possess the brilliant importance of capital surgery, but the gratitude which rewards the successful interference of the surgeon, if less demonstrative than that which follows a lithotomy, is scarcely less real, for to the patient's sense of feeling, the relief is almost beyond description.

The pamphlet of Mr. Stilwell details an operation, for which is claimed an invariable success during a period of forty years. To the author, "the evulsion, or, in plain English, the tearing out of the toenail appears both logically and practically bad," and, in its stead, "a comparatively painless operation to remove the offending cause" is proposed. This operation consists in the removal, with the knife, of the whole of the granulations and hypertrophied cellular tissue, after first finding the edge of the nail with a probe, as a guide, it is presumed, for the limit of the incision. This procedure is based rather on the pathology of the disease, than on a definite end in view with regard to the process of healing; for, the author observes, "we must bear in mind that it is not the nail growing into the flesh, but the soft and sensitive surrounding structure growing over the nail;" this latter being taken away, the nail is left to fulfil its natural use as a support and protection.

The paper of Dr. Cotting, originally published in this Journal,* is

* January 2, 1873. The operation was also described in the same Journal for May 24, 1866.
re-printed by Mr. Stilwell (the cuts, as well as the text, being re-
produced), as a confirmation of the theoretical and practical merits of
the method above described. On superficial view, the operations, as
performed by both these surgeons, would appear to be identical; but
a careful comparative reading of the observations here recorded leads
us to believe that there are points of difference which are important.
Both the authorities operate with the knife—Mr. Stilwell because he
wishes to get rid of the offending tissue, Dr. Cotting, because he
wishes to do this and something more, namely, to make a clean wound
which, in the process of healing, shall, by cicatricial contraction, sub-
stitute a new and better base of tissue under the edge of the nail, and
so prevent the possibility of the subsequent overlapping by any mor-
bid growth. To accomplish this purpose, Dr. Cotting does not limit
his incision with the edge of the nail, but he takes away all the granu-
lations, and with them a considerable portion of healthy flesh from
either side and below the diseased parts, including, possibly, a seg-
ment of the nail itself.

The results which are figured in the pamphlet, and others which
have been observed in cases long ago operated on, show very
plainly a real loss of tissue at the side of the toe, thereby, we repeat,
effectually preventing any overgrowth or overlapping by the soft
tissues, or any painful pressure by the edge of the nail.

We observe a single expression in Mr. Stilwell's pamphlet, which
appears to indicate that he has latterly taken a hint from Dr. Cotting,
either intentionally or otherwise. In the description of the operation
published a year ago by Mr. Stilwell, there is nothing to show that he
did more with the knife than others tried to do with caustics, namely,
to get rid of the fungous growth. He now remarks, "the operation
should be sufficiently bold to ensure the full benefit." There is no
particularly urgent call for "boldness" when the probe is used to
cautiously limit the cut; there is, on the other hand, some demand
for that surgical virtue in the free use of the knife, suggested by Dr.
Cotting; and perhaps Mr. Stilwell now recognizes, but forgets to
explain that the probing is superfluous.

If we mistake not, others, besides Mr. Stilwell, have failed to ap-
preciate the distinctive feature which characterizes the modus operandi
of the cure claimed by Dr. Cotting, and have mistaken kinship for identity in the various cutting operations.

BOOKS AND PAMPHLETS RECEIVED.

Transactions of the Medical Society of the State of California dur-
ing the Years 1872 and 1873. Sacramento. 1873. Pp. 252.

Body and Mind, to which are added Psychological Essays. By
(From A. Williams & Co.)

By Edward Ellis, M.D. Second Edition. Philadelphia: Lindsay &

Skin Diseases; their Description, Pathology, Diagnosis and Treat-
ment. By Tilbury Fox, M.D. Lond. Second American from Third
Boston Medical and Surgical Journal.

Boston: Thursday, August 28, 1873.

The new Training School for Nurses, attached to the Massachusetts General Hospital in Boston, whose circular has lately been distributed among some of the physicians of this State, will open about the first of next November, and begin its work by taking charge of certain wards in one of the wings of the hospital. Mrs. Billings, who is known in Boston as an accomplished and faithful nurse, has been appointed superintendant of the school, and has now gone to the Training School attached to Bellevue Hospital in New York, to become familiar with the system of teaching in use there.

There will be attached to each ward, one or two nurses and two or three pupils, according to circumstances. One of the nurses will pass the night in the hospital, ready to be called by the watcher, in case of emergency. Both nurses and pupils will be in the hospital only when actually on duty, a home being provided for them by the school, in a house close to the hospital gate. The whole corps will be under the authority of the Resident Physician and subject to the rules of the hospital.

The school starts under excellent auspices. Generous donations placed in the hands of the committee enable it to undertake the expenses of the first year without anxiety, while several candidates have applied to become pupils. Systematic training is not a new thing in Europe, but it is mainly to the great school connected with St. Thomas's Hospital, in London, that the origin of this school is to be traced. A fund raised as a memorial for the services of Florence Nightingale was, at her request, applied to the foundation of that school, which has now been in operation over twelve years, and has supplied many superintendents and trained nurses to other institutions in various parts of England and the British Provinces. The school in New York, which was the first regularly organized school in the United States, also received its superintendent from England, if not directly from St. Thomas's Hospital. In view of the fact that these institutions have been successful in England, that the value of them is nowhere questioned, it is rather surprising that similar schools have not been introduced here before.

The main points in which the school system of nursing differs from the ordinary system of hospital nursing are these. While there is a head nurse to each ward, all the head nurses are under the direction and supervision of the superintendent of the school, who is responsible
to the Resident and Attending physicians for the prompt and careful performance of their orders. The pupils serve as assistant nurses and relieve each other in turn through the day and night, returning to the home when not on duty. In this way, they have an entire change of scene and occupation, and a chance to become more thoroughly refreshed than they could if they lived all the time in the hospital. Careful instruction is given on all subjects connected with nursing, including the practical management of splints, trusses and other mechanical apparatus, and also in all kinds of manual manipulation, the practical application of electricity, &c.

A diploma is given after two years' attendance at the school. At the end of the first year the pupils will become nurses, and receive a regular salary. They will still continue to live in the home, and will be employed in the hospital, in private families, or among the poor. It is intended that after graduation the interest of the nurses in the welfare of the school shall be kept up as much as possible, and arrangements will be made by which the home will also serve as a registry and employment office for nurses. We wish the enterprise every possible success.

We notice, in the papers, that the State Constabulary have shown unusual activity of late, and that liquor seizures are becoming more and more frequent. A few days ago an extensive raid was made on several small proprietors, and liquor was removed amid great excitement, a mob of two thousand at times following the officers. We presume that this activity is in some way connected with the fall political campaign, and yet we cannot read these accounts without a strong feeling of indignation, that a free and civilized community should be subjected to a species of tyranny, for it can be called nothing else, such as the State is now inflicting upon her citizens. It is a well known fact that the best medical authority is in favor of the introduction of cheap light wines and the use of beer as the best means we have at our command to diminish drunkenness. Testimony has not been wanting, either in quantity or quality, and, in the face of it all, we are actually subjected to these daily outrages by a miserable set of pic and bean-fed politicians, who do not appear to be acquainted with even the most common and simple laws of health. The wretched physique of the poorer classes of Americans in the country is evidence enough of this deplorable state of ignorance. We think our country practitioners are much to blame for this state of affairs, and we call upon them to do, as they easily can, a good missionary work on the subject of proper food and drink. As matters stand now, we are making ourselves the laughing stock of the world, and every good
physician ought to feel, in part at least, responsible for and ashamed of the liquor law.

In reply to the inquiries of our correspondent in another column, we would say that there are a number of Boston physicians, especially among the younger men, who have made electro-therapeutics a special study, both in this country and under the best teachers in Europe. They are men whose position and abilities inspire the confidence of their brother practitioners, and who are doing their utmost to rescue this specialty from the hands of unscientific men, and to place it in its proper position. We number many of them among our most valued contributors to the Journal. A great deal of good and careful work is now going on in this specialty in all parts of the world, and the value of electricity, as a therapeutic agent, may be said to be slowly but steadily increasing. It will be a long time, however (as we were assured by one of them the other day), before the categorical answer desired by "Rusticus" can be given to patients seeking the specialist's advice. There is, nevertheless, something that is certain and valuable, and if practitioners in general would make themselves more familiar with this therapeutic agent, and find out what it can and what it cannot do, electricity would, we think, become much more popular with the profession than it has been. This can easily be done, for Harvard College now has its "course for graduates," and we recommend "Rusticus" to come to town next term, and take the course on electro-therapeutics.

Health of the Khiva Expedition.—The forethought of the Russian Government in its treatment of its soldiers—"children of the Czar"—is favorably displayed in the admirable medical and hygienic arrangements of the army which marched upon Khiva. In the Turkestan division, comprising two columns (the one of 4,687 and the other of 2,352 men), although it had suffered severely from snow, rain and cold, there were, up to the 15th April, but twenty-five cases of sickness. When we consider the nature of the country through which the troops marched, and the scarcity of water, this immunity from disease appears remarkable. It is due, however, to the sanitary precautions taken, and the rigid supervision exercised in everything pertaining to the health and well-being of the soldiers. Attached to the Turkestan division are fourteen doctors, one veterinary surgeon, one apothecary, and twenty-nine medical assistants (including dressers and dispensers). A certain number of camels are reserved exclusively for the use of the sick and wounded. One noteworthy feature in the dietetic régime of the expedition is the substitution of tea for spirituous liquors, the latter being only given when the medical officer considers alcoholic stimulants absolutely necessary. We shall be anxious to know how far this arrangement meets the consent of the men. Whatever its advantages may be, we fear it would prove unpalatable to our own soldiers.—Lancet.
Correspondence.

MESSRS. EDITORS,—The name of electricity carries with it an immense deal of power. Being something of which the public knows very little, they use the word very freely, and justly as well as ignorantly attribute great power to it. So they do to magnetism. The latter has great effect upon nervous, lazy, ignorant hypochondriacs, and on no one else.

There are three classes of patients upon whom the electricity has an effect. To one it does good; a second class it injures; the third is the class upon whom the magnetism operates so powerfully, and—so does the last advertised drug, quack or otherwise.

My reason for writing to you is to know who there are in the practice of medicine that you would point out as thoroughly competent electricians? We in the country, as well as our more fortunately situated city brothers, like to try new methods, but we wish to do it in the best way. Here is a woman, who calls herself doctor, and has a box with a battery, which she carries about, administering to all whom she can get to employ her, the most infernal crampings and twistings imaginable. The rule seems to be—the more pain the better you feel afterwards. She came in the way of one of my patients, talked about primary and secondary currents, set the machine going, and within fifteen minutes after was succeeded by an attack of hemiplegia.

Another patient of mine, a gentleman, who, for several months, had been troubled with slight rheumatic pains, after being in Boston a week or two, was induced by some hotel acquaintance to call on one of these electricians. The machine was set going, with very considerable pain to my friend, and, on the following day, acute rheumatism in force had him down, and for over seven weeks he was unable to be out of the house.

There are many of the profession who can tell similar stories. Many of us believe that electricity as a medicinal agent may do much to relieve sickness and pain. But we do not know which cases to recommend it in. We have told patients going to the cities to inquire. The result has been that they have fallen into the hands of these ignoramuses, who humbugged them; or into the hands of another, who, if they were female patients, hinted uterine disease, passed the speculum, applied caustic or pretended to, and set up a leucorrhoea to come home with. This has twice been done with virgins, who had never had even a pain in the back, nor a day’s irregularity, nor a particle of vaginal discharge. One was a case of sciatica, the result of hip disease when a child; the other was a case of vertigo in a young lady, whose time to menstruate had not yet arrived.

Now, what shall we do? We are very much afraid to trust advertisements, even in medical journals. Can you help us along? Can you point out those who understand the specialty, and who, without prescribing something else and asking them to call again next week, will give the patients information as to whether electricity is likely to be of service; will send us word what, in their opinion, is the true course to pursue; will repress their superior knowledge, which makes them say, “Well,—Doctor ** * has done all I should expect him to do—but I see very many of these cases,” &c. &e.? It is needless to add that Miss . . . . came home worse than she left it, and the electrician has made fifty dollars, and reports the case as a cure. Over three years have passed, and the patient is as bad as ever. I call her case hysteria, consequent upon dyspepsia, consequent upon cake and pie in loco beef and mutton. But change of diet does not cure, and I should like to know if properly applied electricity—quantity or intensity not to be talked of to Miss . . . . —will do any service? If she needs the use of the battery, let her have it. I send her to the electrician. He should consider himself in consultation with me. I am the one to whom he should give the opinion.

A few words from the Editorial department would help many of us, and none more than

RUSTICUS, M.D.
The British Medical Journal states that two cases of Asiatic cholera were reported in London during the first week of August, one of which proved fatal. They were imported from Hamburg.

"It costs London a million of dollars, annually, to water her streets."—Newspapers. This is about thirty-three cents for each inhabitant. If it were to cost a dollar an a piece, it would be more than that gain to every inhabitant in our cities, to have them thoroughly watered.

The meeting of the British Medical Association proved to be much larger than was expected. Although but six hundred members had entered their names up to the day previous to the meeting, by the evening of the first day two thousand two hundred names had been registered. The opening address was delivered by the President, Sir William Fergusson, on the water supply of London. Dr. E. A. Parkes delivered the address in medicine, Mr., John Wood the address in surgery, Dr. John Burdon Sanderson that in physiology. Numerous other elaborate addresses were delivered, at the opening of the various sections. The financial condition of the Association seems to be eminently satisfactory.

To be Left till Called for.—A parcel upon which this was written, was found to contain when opened last week at the Euston Square parcel office, the decomposed body of a child, which had been sent from Manchester. Some time back a box similarly addressed to the same office, also from Manchester, contained the mutilated bodies of two infants. There is need for a searching inquiry here; if such atrocities cannot be stopped by any other means, parcels "to be left till called for" will have to be declined unless properly authenticated by the sender. Of course, the public convenience would suffer by such a restriction, but child murder must be prevented, if possible, at any risk.—Medical Press and Circular.

Schretter on Movements of the Trachea.—M. Schrötter has demonstrated to the Academy of Sciences of Vienna that the movement of the trachea and the bronchi observed by the laryngoscope differs in various individuals; sometimes it consists in a brusque displacement from right to left or from left to right at the moment of the cardiac systole; sometimes in an oblique displacement forward or backward; sometimes it is nil or almost nil. These movements he considers to be due to the pulse-tides of the aorta, and the differences to anatomical differences in the relations of the aorta with the neighboring organs. With the aid of the laryngoscope, these differences may therefore be diagnosed.

Miss Jex Blake and others, having been defeated at Edinburgh by the decision of the Court of Session, have applied to the Senatus Academicus, of the University of St. Andrew's, to see what can be done for them. In appeals addressed to that body for the admission of women as students of medicine in the university, they submit their application on the following grounds among others. The most general objection to the admission of women to the university, lies in the supposed difficulty of educating them jointly with male students of medicine. This argument does not hold good in the case of St. Andrew's, as there are here no male students of medicine. A supplementary charter can be obtained if needed, without delay, and they are willing to be responsible for all contingent expenses. They are prepared to hire or build suitable premises for a school, and to arrange for a complete course of lectures, and some fifteen ladies are ready to avail themselves of the permission should the university grant it. It is rumored that the application is viewed favorably. Moreover, we see that Sir D. Weddebrown gave notice in the House of Commons lately, to ask leave to bring in a bill next session to admit women in Scotland to medical degrees, and with power to confer such degrees.
A Caution in Regard to the Unguentum Zinci Oxidi of the New U. S. Pharmacopoeia.—Formerly, the unguentum benzoini which forms the base of this ointment was prepared by boiling benzoin in lard. A small quantity only of the benzoin was in this way dissolved, sufficient, however, to obviate the rancidity of the lard. In consequence of the objections made to the mode of preparing it, that the resulting ointment was of a dirty-white color, and deposited a portion of the benzoin when heated, it is directed in the new Pharmacopoeia that the ointment shall be made by melting the lard with the tincture of benzoin. By this process, a larger portion of the benzoin is incorporated in the lard, and hence the zinc ointment made with it becomes irritating. In a case in which we had occasion recently to prescribe anew some benzoated zinc ointment, we were surprised to find that it proved highly irritating instead of soothing, as formerly. We were hence led to examine the ointment, and its appearance was so different from that previously used that we inferred the apothecary had made some mistake in its preparation, but we were informed by him that it had been prepared according to the new formula of the U. S. Pharmacopoeia. We call attention to this, because the use of the official ointment in the instance referred to caused great suffering, and if the experience of other practitioners should be in conformity with ours, it will be prudent to abandon the new formula.—Medical News and Library.

I am glad to see that one publishing firm has had the good sense to advertise in your Journal, as suggested a few numbers since. It is to be hoped that they will meet their reward in so doing. The book they advertise contains scenes which are "among the most exquisitely pieces of art." The translation, "very well done," is said to be by the wife of one of our well-known physicians. Lex.

Messrs. Editors,—Among your large circle of readers there must be doctors in the country who have had much surgical experience, and could give their younger brethren valuable information on the subject of apparatus they have been called on to use for fracture, when the classical splints, as laid down in the books for such cases, were not at hand. Any man, of course, can exercise his ingenuity, but all men are not equally ingenious, and a clear description of the most practicable forms of improvised apparatus in common fractures would be very serviceable.

Erratum.—Page 163, 8th and 17th lines, and in the foot-note, for "Rothrock" read Rothrock.

Mortality in Massachusetts.—Deaths in fifteen Cities and Towns for the week ending August 16, 1873.

Boston, 197—Charlestown, 28—Worcester, 29—Lowell, 34—Chelsea, 19—
Salem, 17—Springfield, 14—Lynn, 21—Fitchburg, 6—Newburyport, 6—Somerville, 12—Fall River, 32—Haverhill, 8—Holyoke, 15. Total, 445.

Prevalent Diseases.—Cholera infantum, 131—consumption, 54—dysentery and diarrhoea, 25—scarlet fever, 16.

Four deaths from smallpox occurred in Holyoke and one in Springfield.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

Deaths in Boston for the week ending Saturday, August 23d, 153. Males, 93; females, 60. Accident, 9—ulceration of the bowels, 3—disease of the bladder, 1—bronchitis, 3—congestion of the brain, 3—disease of the brain, 5—chlorosis, 1—encephalitis, 3—cancer, 1—cholera infantum, 10—cholera morbus, 4—consumption, 18—convolutions, 3—diptheria, 2—diarrhoea, 10—dropsy of the brain, 2—dysentery, 1—exhaustion, 1—scarlet fever, 3—typhoid fever, 5—angina, 1—gastritis, 1—disease of the heart, 2—disease of the kidneys, 1—disease of the liver, 1—congestion of the lungs, 2—inflammation of the lungs, 2—mumps, 4—measles, 1—old age, 4—paralysis, 4—parotitis, 1—pneumonia, 1—scarlatina, 1—tumor, 1—necrosis of the stomach, 1—unknown, 2.

Under 5 years of age, 57—between 5 and 20 years, 6—between 20 and 40 years, 19—between 40 and 60 years, 19—over 60 years, 22. Born in the United States, 108—Ireland, 32—other places, 13.
ON THE SMALLPOX EPIDEMIC IN BOSTON, IN 1872-73.
Read before the Massachusetts Medical Society, June 3, 1873.
By M. E. Webb, M.D., Bowd., of Boston.
[Concluded from p. 205.]

The remarkable intensity of the variolous poison was still farther attested by the unprecedented number of recurrent cases; the writer personally witnessed thirty-eight cases, which presented scars of former recoveries; three of these had the disease twice within three months. The following notes are introduced to illustrate this interesting feature of the epidemic.

Mrs. M. F., aged 39, married, had smallpox twelve weeks ago, and was treated by Dr. White. Diagnosis verified by Dr. Green. Case not removed, and several cases resulted in the same house, receiving the contagion from her; two of these came to the hospital for treatment.

On Sunday, Sept. 22, she was delivered of a dead foetus, at the eighth month of pregnancy; haemorrhage not excessive, but there was great exhaustion.

On the Tuesday following, an eruption appeared. Dr. Street, her physician at this time, reported it as a case of smallpox. On the afternoon of the same day, I saw the case with Dr. Green. There was an eruption over the entire body, with, here and there, thickly accumulated patches, especially upon the abdomen, besides several large blebs filled with bloody serum, the whole surface presenting a lobster red appearance. Uterine haemorrhage small, but exhaustion extreme; frequent collapse on movement; great dyspnœa; pulse rapid and feeble; tongue dry. The symptoms indicated immediate dissolution.

The cicatrices of the first attack were faint, on account of the erythema; but they were perceptible.

She was attended, both times, by the same woman, an old, experienced smallpox nurse, who was greatly surprised on being called upon, the second time, to attend the same patient for the same disease.

Since the publication, last year, in this Journal,* of a case of re-
current smallpox, another one has come to my knowledge, having
some connection with the case published.

E. M., aged 4, was taken sick, March 22d, 1872. The mother of
this child was very intimate with the mother of the child above
referred to as previously reported; she had visited and had even
held E. M. in her lap, when her own child was sick at home with the
first attack of variola. On the 25th, an eruption appeared, just
three days after the primary symptoms. Dr. Granger, the family
physician, was called, and pronounced it smallpox and reported it as
such.

Dr. Green, City Physician, saw the case and examined it care-
fully, and had no doubt that the diagnosis was correct. The child
recovered, and enjoyed good health during the summer.

October 24th, the child was again taken sick, and in two days an
eruption appeared. Dr. Granger was again called, and again
diagnosticated smallpox and reported it.

Dr. Green saw the child on October 31st, and informed me of the
case, saying that he recalled the circumstances of the first attack,
the preceding March. I saw the case November 4th, and certainly
there was no doubt this time, as the child was in articulo mortis,
with confluent smallpox.

This child had been vaccinated when very young, and the mother
said had a very sore arm, but, of course, no cicatrices were visible.

In addition to these cases, I have also seen three instances with
the third attack, and have full records of two cases with evidence
sufficient to prove the fact, one having two good marks of vaccina-
ion performed before either attack; the other, one fair mark. The
history of the one having two marks is as follows:

Mrs. N. D., aged 24, married, native of Dover, N. H.; when not
quite a year old, her sister had smallpox, and she, with her mother,
took the disease, in a light form, and was removed to the pest-house
in Dover. She had been previously vaccinated, and to this day
shows two fair cicatrices.

At the age of 14, while attending school in Manchester, N. H., she
had the second attack. The prodromata were quite severe, but she
kept up as long as possible in order not to lose her place in her
class. She was finally obliged to keep her room, and a Dr. French
was called in. He pronounced it smallpox. There were, at that
time, a few sporadic cases there. She had varicella in the interval,
and shows some few marks, beside two sets of scars undoubtedly
variolous.

I saw the patient December 24, 1872, and she was then suffering
from the discrete form of the disease; the eruption was in the pustu-
lar stage and was commencing to desquamate upon the face, it
being then the seventh day of the eruption. The primary fever was
high, with severe head-ache, back-ache, &c.

This case was one of uncomplicated variola discreta, but it was
much more severe than the previous attacks. I have seen this patient since her recovery, and she is considerably marked from the last attack.

For further details, I am obliged to rely on the figures of the three hospitals within the city limits.

Of those treated, about sixty per cent. were American born, fifteen per cent. were from the British Provinces, fifteen per cent. were from Ireland, and ten per cent. were from other parts of the world, the death-rate being in about the same proportion.

Again, the highest death-rate was in the male sex.

Number of males treated, 538.
Number of deaths, 127.
Percent. of mortality, 23-60.

Number of females treated, 180.
Number of deaths, 58.
Percent. of mortality, 18-83.

As might be expected, the death-rate was exceedingly large among the unvaccinated.

Number of unvaccinated, 113.
Number of deaths, 55.
Percent. of mortality, 48-76,
or nearly one half.

Number of vaccinated, 690.
Number of deaths, 130.
Percent. of mortality, 19-55,
or 29-21 per cent. less than death-rate among the unvaccinated.

Number of re-vaccinated, 84.
Number of deaths, 15.
Percent. of mortality, 17-85,
or 1-70 per cent. less than under head of vaccinated.

For the purpose of showing the value of the vaccine scar, we sub-join the following statistics:

Number having one (1) scar, 413.
Number of deaths, 52.
Percent. of mortality, 12-06.

Number having two (2) scars, 103.
Number of deaths, 8.
Percent. of mortality, 7-76,
or 4-30 per cent. less than those having only one cicatrix.

Number having three (3) scars, 36.
Number of deaths, 0.

Number having four (4) scars, 3.
Number of deaths, 0.

Number having five (5) scars, 3.
Number of deaths, 2.
One of these had five marks from primary vaccination, and had a discrete form of the disease, and recovered. The other two had three marks from primary vaccination, and two from re-vaccination within three years—both had the hemorrhagic form, and both died.

One patient had six marks, three primary and three secondary, the result of re-vaccination last November. One had eight good marks, which he had borne from infancy. These last two had the disease in a mild form, and made good recoveries.

So many theories have been advanced in relation to the subject of vaccination, that absolute truth is reached with difficulty. That it is the only preventive known, and that it is one of the grandest advances ever made in medical science, in saving life and preventing human suffering, all acknowledge; that it has done so in the late epidemic is satisfactorily proved by the records. Allowing this and even more, that it is far better to protect than previous attacks of smallpox, it has not proved an entire safeguard. The many cases of recurrent smallpox, including some instances of young children previously vaccinated and re-vaccinated, certainly point to the conclusion that there are persons so susceptible to the influence of variolous poison that no amount of vaccination or previous attacks would prevent the disease, if these persons were exposed to the contagion.

Regarding the scar, we have hesitated to make a favorable prognosis upon that alone, in the earlier stages, whether the patient had or had not one or two or even five good, fair or poor marks upon the arm; and the fact that physicians and nurses who have constantly been exposed to the contagion, and in two instances under my own observation have been inoculated with the virus upon abrasions of the hand, while they showed no trace of a vaccine cicatrix, yet have not suffered from the disease, is certainly strong evidence that vaccination may protect without any external mark whatever.

A valuable paper, read by Dr. B. E. Cotting before the Boston Society for Medical Improvement, and published in this Journal, April 25th, 1872, seems to prove this fact conclusively. In the experiments, under his instruction, by Dr. J. H. Davenport, of this city, a new method was devised and performed for the sole purpose of proving that a person could be successfully vaccinated without the vaccination in the least showing itself, or leaving a trace upon the external surface. The lymph was inserted into the arm by means of a hypodermic syringe with a long needle, and was carried underneath the skin as far as possible from the point of puncture, in order that external pock might be prevented, and, consequently, protection gained without a scar. His procedure is wholly different from that of Clemens and others in Germany, whose object was merely to deposit the lymph in the cellular tissues directly under the wound, with the expectation that pock would form externally around the puncture, as actually occurred whenever their operation was successful.
Re-vaccination has been extensively performed, and has, no doubt, saved many who otherwise might have had the disease. While, in epidemics, this may be imperative, the view that it should be done every three or five years, should be received with hesitation. If properly done in infancy, and at least faithfully attempted again after puberty, it ought to be sufficient, except, perhaps, in epidemics, or among people living in tenement houses where the disease exists; in these conditions, re-vaccination should be performed whether one, three, or five years had intervened since the last introduction of vaccinia.

Both animal and humanized virus have been used, but there are no data to lead to correct conclusions as to the relative protective value of the two. For my own part, I am fully committed to the use of animal virus, for the reason, in the first place, that there is no danger of introducing syphilis or other diseases, a danger which does undoubtedly occur, though not so frequently as many suppose; and, secondly, because I consider its protective power greater. I have yet to see the first case of variola, in any form, among the thousands that have been vaccinated with what was known to be animal virus, including over eight hundred cases in my own practice where this has been used. The nearest approach to it is the fact that several cases have been noted where the disease existed, and was attributed to the bad pock used, or in other words, to inoculation with variola, the eruption making its appearance on the eleventh or twelfth day after vaccination. These are not true instances, for the reason that these cases were seen generally upon the fourth day of the disease and were probably vaccinated two or four days after receiving variolous contagion, and, under those circumstances, we should not expect to do more than modify the progress of the variola.

For complications, beside those commonly seen, we have observed two conditions not referred to by authors in treatises upon smallpox.

In females, if the disease has been in any way severe, they have menstruated invariably during the primary fever; in girls, the first menstrual period came on, and in people near the climacteric, the catamenia appeared, when perhaps menstruation had been delayed for one year. So common has this been, that a diagnosis has been made upon this fact alone, that there was a flow of blood from the uterus occurring out of the regular time for the menstrual epoch. In some way, the poison seems to affect the uterus, and to exert a special action upon its functions.

In several cases, and always where the disease has been mild, and had passed regularly into the desquamative stage, suddenly, without a warning, or a perceptible cause, patients would have convulsions—inflammation of the brain or spinal cord—followed by paralysis, either complete or partial, and death in twenty-four or
forty-eight hours. In three instances, paralysis commenced in one leg, then the arm of the same side was affected; then the other leg and arm; then complete paralysis; the mind of the patient remaining clear to the last.

There were two cases that had paralysis without the first symptom of inflammation and both these died. An examination of the urine in these cases disclosed the fact that it was heavily loaded with albumen. No microscopical examination was made. This might have thrown some light upon this peculiar manifestation, as Bright's disease was suspected.

All the cases, some eight in number, that we have seen, proved fatal.∗

Treatment.—We will premise the discussion of treatment by giving a table of mortality-rates in the different places where the disease has been treated.

In the Albany Street hospital, which was open six months, the
Number of cases treated was 322.
Number of deaths was 76.
Per cent. of mortality, 23-60,
or nearly four per cent. less than the general average.
The highest mortality rate was at Galloupe's Island; here the
Number treated was 487.
Number of deaths, 182.
Per cent. of mortality, 39-59,
or nearly forty per cent., 15-99 per cent. larger than at the old
Albany Street hospital.

The next largest death-rate was among those not removed.
Number treated at their own homes, 2,342.
Number of deaths, 659.
Per cent. of mortality, 27-09.

This is 12-5 per cent. less than that at the Island; yet the Albany
Street hospital had an advantage of 3.5 per cent. over this.
At Hospital No. 1, (Swett Street),
Number treated, 233.
Number of deaths, 49.
Per cent. of mortality, 21-02,
or 18-57 per cent. less than at the Island,
7-07 " " " " among those not removed.
2.58 " " " " at the Albany Street hospital.
The lowest rate was at the Marcella Street hospital, or the old
Roxbury Almshouse.
Number treated, 300.
Number of deaths, 60.
Per cent. of mortality, 20-00,
or 1-02 per cent. less than at the Swett Street hospital.
3-55 " " " " " Albany Street hospital.

∗ See reports of similar cases in this Journal, May 8th, May 22d and Aug. 7th, 1873.
7.04 per cent. less than among those not removed. 19.54 " " at the Island.

Allowing that the city had possessed a hospital like this latter at the commencement of the epidemic, and that all the cases had been treated there, we find that one hundred and ninety human lives might have been saved in this way alone. In comparison with the death-rate at the Island, we find that eighty-five lives might have been saved, that died after transportation there. By these figures, it is evident that removal to a good hospital, on main land, is far better, for mortality rates, than allowing patients to remain at home; and the better the hospital, the less the percentage of deaths.

First, then, in the matter of treatment, is a hospital located where the land is high, dry and healthful, with high rooms, properly warmed, and ventilated, and sufficiently numerous to enable proper classification of the cases; they should be supplied with every convenience which modern science has invented that will add to the comfort and happiness of its inmates. The surroundings should be pleasant, so that patients can feel that, instead of a "pest-house," they have a home, where the most delicate and sensitive can be so separated from the wards, that they will not be continually shocked by scenes of suffering and of death. Having such an institution, well supplied with watchful and attentive nurses, both night and day, full preparation is made for a hand-to-hand conflict with the disease.

Most of the patients are in the second stage, or that of the eruption, on admission, and require before the eighth day little or no treatment, except perhaps an opiate at night (as sleep is of great importance), and some mild laxative to keep the bowels in soluble condition. In the discrete form, this has been all the treatment required, guarding patients against the ravenous appetite they always have while convalescing. In the severer forms, we have, in addition, given quinine early, and through every stage of the disease, thus keeping the temperature low, and harboring strength for the suppurative stage. During the secondary fever, quinine in large doses, governed by the temperature, milk-punch, brandy, beef tea, and opiates (generally sulphate of morphia) were given freely. It has been sometimes surprising to see the rapid change of a patient, for the better, under the administration of five or even ten grains of quinine every four hours, and ½ grain of morphia, as often; and instead of the high temperature, 105° to 107°, the rapid breathing, and the delirium, we would have a temperature of 100° or 101°, dyspnoea lessened, sleep produced; and our patient, having a new lease of life, would go on to convalescence and recovery. Patients have never been without milk, and have taken it ad libitum. Grapes, oranges, apples, and other fruit have been rationed out daily in all stages of the disease.

In the hæmorrhagic form, the same course has been followed, with
the addition of ergot, muriated tincture of iron, tannic acid and other astringents; but none of these have been of benefit.

Complications of the disease were treated upon general principles, never forgetting that the vital powers must be sustained.

Ulcerations of the cornea were treated by frequent cleansing of the eyes, application of weak astringent lotions, and keeping the pupils well dilated with atropine. Delirium, in the third stage, we considered as a cry of debilitated nature for support, and milk punch and beef-tea were urged more heroically.

To prevent pitting, an all important matter, various methods have been advised, many experiments made, and all with doubtful success. If the ulcerations extend deeply into the skin, nothing will prevent cicatrices remaining. Puncturing the vesicles, applying iodine, nitrate of silver, poultices, collodion, excluding the light by darkening the room, excluding the air by covering the face, have only succeeded in making our patient more uncomfortable, if possible, without preventing disfiguration; and latterly, were sorted only to emollient applications, and to frequent sponging with tepid water.

Our hospital solution to prevent itching was composed of carbo acid, 5 ij.; olive oil, glycerine, in equal parts, 3 ij. This was applied with a soft brush.

In the three hospitals under our charge, we have used all kinds of disinfectants that are in the market, but as carbo acid has proved the best in destroying all odors, we came, at last, to use no other. We sprinkled our wards with the solution, and our beds and bedding with the powder, made by rubbing up the acid with carbonate of magnesia; our earth and water closets were kept free of all odor by the lavish use of carbo acid.

Bromo-chloralum has the advantage of being nearly odorless, and in private rooms where there was only one patient answered every purpose, but in wards is far inferior to carbo acid.

The fumigation of houses, bedding, clothing, &c., has been performed by burning sulphur, and thoroughly saturating them with the fumes of sulphurous acid. This has been the only method used at the hospitals to disinfect clothing, and from the many patients that we have been obliged to send out with a portion of their garments worn in the hospital, not a case has resulted to my knowledge. Baking, or subjecting the cloth to a high temperature, has not been used here, but is no doubt an easy and efficient method.

In closing this report, I would remark that the great importance of every city and town of any size having a permanent and well organized hospital always at hand for any emergency cannot be too strongly urged upon the profession; for, much as I value vaccination, I consider isolation in times of an epidemic far better.*

* Dr. Robert H. Blakewell, in his monograph on "Smallpox in Trinidad," remarks: —

"I fear that in some instances wholesale vaccination and re-vaccination at the commencement of an epidemic, has spread smallpox among those who remained unvaccinated. At least it happened, curiously enough, that in the best vaccinated districts in Trinidad, there
A good hospital maintained for five years at an expense of five or even ten thousand dollars a year, without a patient, would be economy as a safeguard for times of need.

If the past epidemic teaches anything, it is not only the importance of having a board of health with special qualifications for that position, unbiased by political trickery or party influence, but the absolute necessity of having an established hospital for contagious diseases, within city limits and easy of access, where the sick poor can have the comforts of home. If Boston had had such a hospital, or had even availed herself one year ago, as later she was obliged to do, of the Roxbury almshouse, she never would have been scourged by the late epidemic, which has cost over one thousand lives, incurred directly an expense to be counted by hundreds of thousands of dollars, to say nothing of consequential damages to business, or of the anxiety of every household which dollars and cents cannot express; she might have saved herself the standing reproach of hundreds of municipalities not only in this state, but all over New England, which have suffered from this disease, and which trace the source of the contagion directly to the careless ness and neglect of Boston alone.

1282 Washington St., June, 1873.

TREATMENT OF NEVI.—In a recent discussion before the Clinical Society of London, the President, Mr. Prescott Hewett, observed that it was often a matter of difficulty to know when and when not to remove nevus. A large number might be safely left alone until they began to grow. They not infrequently die out. He referred to the case of his own son, who was, as a child, the subject of a nevus of the size of a walnut on the forehead. It did not increase up to the age of four years, when he had an attack of hooping-cough, during which the nevus disappeared.

Mr. John Croft referred to a case in which a nevus gradually disappeared. Whenever a white spot indicating atrophy was observed upon the nevus he advised it to be left alone. In others, enucleation was, he thought, often the quickest mode of treatment.

Mr. Barwell was of opinion that cutaneous nevi before puberty generally disappeared, and often, also, subcutaneous ones. Deeper ones, as a rule, however, did not spontaneously cease to exist.—Med. Times and Gazette, June 14, 1873.
Progress in Medicine.

REPORT ON ANATOMY.

By Thomas Dwight, Jr., M.D.

Methods.

There is but little to record under this head. Exner's admirable little manual for microscopical preparation, has been noticed in this Journal (May 15th), and the review of Sanderson's Hand-book for the Physiological Laboratory will appear shortly. Mr. Needham writes in the Monthly Microscopical Journal for June, on methods of cutting sections, and Mr. Atkinson, in the same Journal for July, on the preparation of the brain and spinal cord for microscopical examination; neither, however, gives much that is new or original.

The Quarterly Journal of Microscopical Science, for July, contains a paper by David J. Hamilton, describing an apparatus which he has invented, for injecting by air-pressure, and which he considers an improvement on Ludwig's. The latter is very simple, consisting of a large receiver with a small neck which is connected by tubes with a water pipe on one side, and a small bottle holding the injecting fluid on the other. The latter is, in turn, connected by a pipe and fine nozzle to the object to be injected. By permitting the water to flow into the first receiver, the air is forced into the second, compresses the fluid and expels it through the escape pipe. Mr. Hamilton's apparatus is on the same principle; the power is obtained by tightening bands around an air bag, and it permits two fluids to be injected at once. There is also an arrangement for keeping the fluids and the specimen warm, if desired. This must be more expensive, but, except in convenience, not superior to Ludwig's apparatus, which can be easily modified, so as to accomplish as much as the other.

Anomalies.

The great attention given of late to anomalies, has brought them to light in such numbers, that it is impossible to mention any but the most important. Gruber describes (Bulletins of the Academy of St. Petersburg, vol. 18, No. 2) the fourth case he has observed of an additional carpal bone resulting from the subdivision of the scaphoid. Prof. Humphry's lecture on The Varieties in the Muscles of Man (Brit. Med. Journal, June & July), delivered before the Royal College of Surgeons on June 2d, 4th and 6th are, in some sort, a continuation of those on myology, given the year before. He then discussed the general laws regulating the arrangement of muscles, and now he considers the causes of exceptions. He finds little to support the view that variations are advantageous to their possessor; but, on the contrary, that those muscles are most frequently absent or modified, which can be most easily spared. The cause of these anomalies, appears to be an excess or a defect of segmentation. The lectures reviewed the chief variations in each part of the body, discussing their signification, and, finally, alluded briefly to several interesting questions which the subject suggested. He holds that the distribution of nerves to abnormal muscles, is too uncertain to be a safe guide to their homologies.
Some very interesting cases of deficiency of important muscles have been published by other observers. Dr. Yeo exhibited at the Clinical Society of London, Feb. 28th, an individual with complete absence of the pectoralis minor and of much of the sternal portion of the pectoralis major. The clavicular portion of the latter, and the latissimus dorsi were much hypertrophied. Prof. Drachmann (Journal of Anat. & Phys., June, 1873) describes a case of congenital absence of the quadriceps extensor cruris in both legs, observed during life, on a woman of twenty-eight. The patellæ were present; they were small and movable, and apparently quite unattached to the tibiae. Gruber (loc. cit.) reports a case of absence of the inguinal portion of the external oblique. The lower border of the muscle passed from just above the anterior superior spine of the ilium to a point in the linea alba, about five inches above the pubes. He describes many other muscular anomalies, of which one of the most curious is a tensor fascie suralis coming as usual from the semi-tendinosus, which it left in the upper part of the thigh. It soon became tendinous, and ran in a separate sheath to near the head of the tibia, where it became superficial to the deep fascia. Keeping in the middle of the back of the leg, it ended by expanding into the posterior part of the sheath of the tendo-Achillis. Dr. Curnon reports, in the last number of the Journal of Anatomy and Physiology, a remarkable variation in the external rectus of the eye, which had two extra bellies arising in common with its lower head. "The inner and shorter slip was inserted into the outer half of the cartilage of the lower eyelid, where it joined the larger and external slip, which was inserted into the periosteum of the outer wall of the orbit, as well as into the cartilage." We would suggest that the abnormal heads may be hypertrophies of the fibres sent to the septum orbitale.

The most noteworthy of the anomalies observed in the arterial system, are those described by Hillary in the Canada Lancet, for May. The axillary artery of both sides, divided at its second part into two trunks. The anterior divided near the elbow into the radial and ulnar; the posterior, on one side the larger of the two, supplied the upper arm and finally became the interosseous.

The reader will find accounts of various anomalies in the Archives Néénderlaisés, vol. 7, part 5, and in the Lyon Medical, of March 30, 1873. The muscular anomalies observed in the dissecting rooms at King’s College, London, during the sessions of ’68-9, ’69-’70 and ’70-’71 have been collected by Mr. Perrin, and appear at intervals in the Medical Times and Gazette. The first of the series appeared Dec. 7, 1872. The last report of Guy’s Hospital, that for 1872-3, contains a list of the anomalies observed in the dissecting room, from October 1870 to June 1872, by Davies Colley, F. Taylor and B. N. Dalton. Dr. J. J. Charles gives some notes of abnormal arrangement of the arteries of the arm, in the June number of the Journal of Anatomy and Physiology.

Osteology.

Two temporal ridges of the human skull have been described by Hyrtl in the thirty-second volume of the Memoirs of the Academy of Vienna. Till now, but one has been known, and is usually considered as showing the line of origin of the temporal muscle; though, as our author points out, its course would necessitate astonishing
variations of the latter. He finds that there are usually two more or less perfect lines, the lower indicating the origin of the temporal muscle, the upper marking the boundary between the superior, or parietal, and the lateral, or temporal regions. The superior varies in position (being nearer the sagittal suture in narrow skulls, and further from it in round ones) far more than the lower, but is usually better marked and more rarely absent. Occasionally, but one is found, and very rarely both are wanting. The inferior ridge starts from the outer side of the external angular process of the frontal, runs backward across the lower part of the parietal, describing a curve with the convexity upward, but before reaching the back of the bone it turns forward and ends in the posterior root of the zygoma. It does not touch the lambdoidal suture. The superior line begins at the same point but runs higher on the side of the head, and finally strikes the lambdoidal suture.

Prof. Wenzel Gruber writes in Du Bois Reynolds' Archiv, 1872, Heft 6, on the position of the mental foramen. Finding it variously stated by different authorities, and thinking it possible that it might vary in different races, he examined 162 Russian heads. He found it most frequently below the second bicuspid, but, almost as often, below the septum, between the first and second bicuspids. In a series of over 1200 lower jaws he found it wanting but once, and then only on one side. It very rarely was double or triple.

Prof. Struthers (London Lancet, Feb. 15, 1873) reports a case tending to show that the supra-condyloid process of the humerus is an hereditary anomaly. The father of seven children had it on the left arm: three of the children had it on one side, and one on both. It is stated that unless very small, the process can be easily felt during life.

Dr. P. v. Jhering, in Du Bois Reymond's Archiv, 1872, heft 6, describes six centres of ossification for the frontal bone besides the two familiar ones. Of the new ones, two are in the nasal spine, one near the trochlear depression in the frontal plate of each side, and a more important one is in the external angle of each side.

The origin of the normal curves of the human spine is the subject of an excellent paper in Virchow's Archives, vol. 57, parts third and fourth, by Dr. Balandin of St. Petersburg. He gives a very interesting historical account of the state of the question, but does not appear to be acquainted with Bouland's paper, of which there is an abstract in our first report on anatomy (Sept. 1872). Not only are the causes of the curves matters of doubt, but also the time of their appearance. Our author made ligamentous preparations of the spinal column and thorax of foetuses, children and adults on which he studied the curves and then tested their stability by stretching the specimen as much as possible without injury. He found that the column of embryos of from two to three months presented a general curve which could be obliterated by extension. At from four to five months the curve had a longer radius, and on traction a concavity remained from about the seventh cervical to about the ninth dorsal vertebra. In older foetuses the results were similar, the cervical and lumbar regions becoming straight under traction, but the dorsal curve being more marked. When the child is about three months old the normal curve in the neck is first observed. It quickly consolidates so as not to admit of
straightening. At this age the lumbar region is normally straight; the curve does not appear till the beginning of the second year. The two superior curves become rapidly more and more stable, but the lumbar one may be straightened even to the twentieth year, and is not firm till growth is complete.

In considering the cause of the curves, the author devotes himself almost exclusively to the cervical and lumbar regions, expressing the opinion that the dorsal curve is the result of the confining influence of the walls of the thorax and of the pressure from the growth of the viscera which they enclose. The other curves may be said to be caused by an extension or straightening of the body. In the foetus in utero, the head and the legs are bent forwards, and it is necessary that they should both be brought back before the upright position can be maintained. The child begins to raise its chin from its breast during the third month, and it is in consequence of this that the cervical curve is formed by the spine bending forward to support the head. The cause of the lumbar curves requires a longer discussion, as the writer presents some quite original views. He first calls attention to the position which the body of a foetus, or of a very young child, assumes when laid on its back. The lumbar spinous processes rest on the table in a line with the dorsal ones, and the legs are rotated strongly outward, with the knees usually not touching the table. If the knees be brought together, they at once spring up further from the table, so that the thighs form a well-marked angle with the body. Now, if the knees, still kept together, be pressed down till they rest upon the table, the abdomen will become prominent and the spinal column will bend forward in the lumbar region. The same thing occurs after the removal of the muscles and viscera, and can be shown to depend on the shortness of the ilio-femoral ligaments. As the child learns to stand and to walk, and, finally, to be habitually on its feet, this force comes more and more into play, increasing the obliquity of the pelvis and the lumbar curve. Balandin regards as untrustworthy the measurements showing that any of the vertebral curves are due to difference in thickness of the anterior and posterior bodies of the vertebrae.

Myology.

The Structure of Striated Muscular Fibre.—Papers on this subject will be found in Schulze's Archiv, vol. 8, heft. 2, and vol. 9, heft. 2, by Merkel; in Pflüger's Archiv, vol. 7, heft 1 and vol. 7, heft 2 and 3, by Engelmann; in Reichert and Du Bois-Reymond's Journal, 1872, parts 5 and 6, by Sachs; and in the Proceedings of the Royal Society of London, April 30, 1873, by Schäfer.

It seems desirable to attempt a general statement of the progress making towards the solution of this vexed question. Obsolete as many points in it are, and diverse as are the chief views, there is reason to hope that, ere long; at least the outlines of a theory will be generally accepted. It should be remembered that the above-mentioned observers have all studied the muscles of invertebrates, and that it is by no means settled how much the muscular fibre may differ in the various groups of the animal kingdom.

According to Merkel, the fibre consists of two kinds of muscular substance proper, enclosed in a sheath of most delicate membrane, from which come transverse partitions, dividing the fibre into elements,
each of which consists of two chambers placed end to end. By way of illustration, let each element be represented by a fig-box or "drum," divided into an upper and lower part by a central partition. Now a pile of such boxes would (if transparent) present transverse divisions of two kinds: one a middle-plate, the partition in the middle of each box, and one an end-plate at the point of contact of two boxes. Such is the framework which we will suppose to be filled by two substances, one dark and one light, both being in each chamber in about equal quantities. When the muscle is at rest, the dark substance in each chamber is placed against the middle-plate and the light against the end-plate; thus a fibre presents alternate dark and light bands; in the middle of each of the latter is a dark stripe, the end-plate or surface of junction of two muscular elements, while in the middle of the dark band is a lighter stripe, the middle-plate, the central partition of an element. The polariscope shows that the light bands are singly and the dark doubly refractive. Engelmann has the same general idea of the framework, but is able, with high powers, to resolve into three the dark line in the white band. Sachs agrees in this with Engelman, but does not admit the existence of a middle-plate.

So far, there are no glaring discrepancies between the views, but they appear when we come to the phenomena of contraction. These writers agree, further, that the dark substance is the contractile element, and is of greater density than the light; that, at a certain moderate degree of contraction, the stripes usually disappear, and the fibre appears homogeneous; and that, at full contraction, the white stripes are proportionally broader and the dark proportionally narrower than when at rest. According to Merkel, there is, during contraction, an intimate mixing of the substances in each element, causing the homogeneous appearance just mentioned, but towards the end of the act they disengage themselves and change places, the dark or doubly refracting substance accumulating on each side of the end-plates, the light going to the middle-plate. This occurs by the absorption of fluid from the light to the dark at the beginning of the act, and its return towards the end of it. Sachs is nearly of the same opinion, but Engelmann denies entirely that the substances change places. He holds that the fluid passes from the light to the dark, making the former darker and the latter lighter, except at its centre. Both parties claim that these views are confirmed by the appearances observed with polarized light. As to the subdivision of the primitive fibre into longitudinal fibrilles, there is great doubt whether the latter are not merely post-mortem changes or the effects of re-agents.

The views of Mr. E. A. Schäfer, presented before the Royal Society last April, are entirely different from any of the above. According to him, voluntary muscular fibre consists of a homogeneous ground substance, in which very small bodies called muscle-rods are imbedded in transverse rows, the long axis of each rod being parallel with that of the muscle. Each muscle-rod has the shape of a minute dumb-bell, with globular heads, which are small in proportion to the shaft. When the fibre is moderately contracted, the dark band corresponds to the handles of the dumb-bells, and the light band to the opposed heads of those in two neighboring rows. There is, in the middle of the light band, a transverse row of dark dots, caused by the heads of the rods, while the light band is caused by the light they throw off. If the
fibre be slightly stretched, the line of dots appears double. When the fibre is in complete relaxation, the ends of the rods are so small that they do not project from the shafts; in fact, cannot be distinguished from the latter, and the striped appearance is gone. Nothing can be distinguished beyond a vague longitudinal striation. This state is apparently the same that Merkel and others ascribe to partial contraction. According to Schäfer, when the fibre contracts, the heads of the rods enlarge, press against one another, and encroach on the shafts. Owing to the increased refraction of the heads, the dark band disappears; but, owing to their crowding together, the row of dots is changed into a dark line. The polariscope shows that the ground substance is doubly and the rods singly refractive. The author's theory is, that the ground substance is the contractile element, and that the rods are simply elastic to restore the contracted fibre to its original shape.

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**Bibliographical Notices.**

*The Mechanism of the Vesicles of the Ear, and the Membrana Tympani.*

By H. HELMHOLTZ. Professor of Physiology in the University of Berlin, Prussia. Translated by ALBERT II. BECK and NORMAND SMITH, of New York. New York: William Wood & Co.

This work of the distinguished German physicist, which first appeared in *Pflüger's Archiv für Physiologie*, in 1869, attempts to solve the physiological and mathematical questions which are involved in the transmission of sound through the conducting apparatus of the ear, and, ever since its appearance, has been accepted as the highest authority on that subject. The name of Helmholtz alone was sufficient to insure it a favorable reception, but clinical experience is daily confirming many of the views therein advanced, and to him will probably belong the credit of establishing a substantial basis to operative otology.

The book is divided into eight sections, viz.: 1st. Results due to the small dimensions of the auditory apparatus. 2nd. Anatomy of the membrana tympani. 3d. Attachments of the hammer. 4th. Attachments of the anvil. 5th. The movements of the stirrup. 6th. The concerted action of the bones of the ear. 7th. Mechanism of the membrana tympani. 8th. Mathematical appendix.

1. Helmholtz first discusses fully the theory first advanced by Ed. Weber, that the ossicles of the ear and petrous bone must be regarded as solid, incompressible bodies, and the labyrinth water as an incompressible fluid in the transmission of sound. For if, in an elastic medium infinitely extended, the dimensions of the vibrating mass are infinitely small compared with the length of the sound wave, the relative displacement of individual molecules of this mass must be infinitely small compared with the vibration of the whole mass, and, consequently, infinitely small compared with the length of the sound wave; they may therefore be disregarded, and the mass considered as vibrating as a whole, and not by its separate molecules. Solid elastic bodies, not infinitely extended, but with limits, against which the waves of sound may strike, are subject to the same law, provided that
no linear dimension of these bodies is very small compared with the other dimensions. But Kirchoff’s studies on the equilibrium and vibration of an infinitely thin elastic rod, as applied by Helmholtz, prove that, in immovable elastic bodies with linear dimensions infinitely small compared with the wave-length, vibrations of a simple tone produce, upon two points of the elastic body, relative displacements which are infinitely small compared with the entire amplitude of the vibrations, or in other words, that such masses act exactly like solid bodies. As the wave-length of c₂ is about 1,000 cm. in air, and 4,000 cm. in water, while the dimensions of the ear are each only a small fraction of a centimetre, it follows that the above rules apply to the conducting apparatus of the ear, the separate molecules of which suffer displacements among themselves relatively small, compared with the amplitude of the sound-wave; the separate bodies forming this apparatus act, then, absolutely as solid bodies. Again, if it were possible to set the small bones of the ear into regular vibration, they would produce tones far above the limits of our musical scale, and would be, consequently, imperceptible.

2. The second section is taken up with a minute description of the membrana tympani in the superior part of the tympanic ring, and the position of the membrane itself in its relation to the axis of the meatus. The neck of the hammer fits into a recess between two sharp projections of bone, which Helmholtz calls the Rivinian recess, and this recess is filled by the loose membrane known as the membrana flacida Shrapnelli. From the two projections of bone, quite tense bands of fibres pass to the anterior border of the hammer, thus suspending that bone. The funnel shape of the membrana tympani is given as it has been frequently described, and Helmholtz adopts the explanation of the light reflex, which has already been given by Politzer and others, namely, that it is due to the reflection back of light from that portion of the membrane which is perpendicular to the rays thrown against it. In regard to the membrane itself, the only peculiarities noticed are that the circular fibres are strongly developed into cords on the edges of the Rivinian segment. The fibres of which the membrane is composed are dense and unyielding, thus forming an inelastic and inextensible structure.

3. Gruber’s descriptions of the attachment of the hammer to the membrana tympani, are accepted by Helmholtz: "near the lower end of the manubrium, the union between the bone and the thickened tissue of the membrana tympani is close; near the processus brevis, however, a loose layer intervenes between the bone and the membrane, or there may be a kind of incomplete joint-space, which is limited on both sides by the closer union between the periosseum of the hammer and the borders of the cartilaginous layer, together with the fibrous tissue of the membrana tympani."

The second and strongest attachment of the hammer is by a broad tendinous band arising from the hammer just below its head, and reaching as far as the stump of the processus Folianus, and attached to the spina tympanica major; this is called the ligamentum mallei anterius. From the bony ridge which constitutes the lower edge of the hammer, another ligament passes to the wall of the tympanum, called the lig. mallei externum, but, inasmuch as its posterior fibres are very strongly developed and constitute the chief axis of rotation
of the hammer, Helmholtz gives this bundle of fibres the special
name of lig. mallei posticum. This ligamentum posticum runs in the
same direction as the strongest fibres of the ligamentum anterius, and
these two constitute the axis on which the hammer moves. The
other fibres of these ligaments serve to restrain the rotation of the
manubrium outwards.

The tensor tympani muscle, which must be regarded as a powerful
muscle on account of its penniform origin, is attached to the manu-
brium a little below the axis-ligaments, and consequently keep these
stretched.

"The hammer, thus fastened, possesses, besides the tendon of the
tensor tympani muscle, the following bands capable of retaining any
rotation of the hammer outwards:—1. The middle and anterior fibres of
the lig. externum. 2. The lig. superius. 3. The upper fibres of the
lig. anterius. The membrana tympani itself acts as a band of restraint,
against too strong rotation of the handle of the hammer inward."

4. The anvil has been always described as attached to the hammer
by a capsular ligament, but the relation and form of the two articulating
surfaces has never been accurately studied before. The minute studies of
Helmholtz show that the articulating surfaces of the anvil and hammer
form a pair of cogs which oppose the rotation of the hammer inwards,
but allow it to be driven outwards without carrying the anvil with it.
By this arrangement, when the hammer is rotated inwards, the cogs on
the articulating surface of this bone, and those on the articulating
surface of the anvil, fit firmly into each other, and the rotation is thus
communicated to the anvil; if, however, the rotation of the hammer is
outwards, the cogs separate, and the hammer alone moves outwards.
This beautiful arrangement thus protects the delicate labyrinth of the
ear from violent fluctuations of pressure, to which it would otherwise
be liable whenever air was forced into the tympanum. Helmholtz
estimates that the possible rotation of the two ossicles upon each
other will hardly reach 5°.

If the connection between the anvil and stirrup is severed, the
attachments of the ligaments of the anvil and the axis of rotation of
that bone are such that the rotation of the handle of the hammer in-
wards must cause the head of the hammer to incline backwards, and
must lift the anvil slightly from its position. The consequence of this
movement is that the axis of the hammer is drawn away from a
straight line, and the ligamentum mallei posticum is more tensely
stretched.

The contraction of the tensor tympani muscle must render all the
bands of the ossicles tense, with the exception of the ligamentum
superius, and bring the anvil into a position where the cogs of its
articulating surface fit the tightest into those of the hammer.

5. The capsule of the anvil-stirrup articulation contains more com-
 pact fibres on its inferior than on its other sides, and the attachments
of the base of the stirrup in the oval window are more tense on the
inferior than on the superior surface, and most compact at the posterior
end. The result of such attachments is that the motion of the head of
the stirrup, instead of being directly inwards and outwards, is some-
what downwards and backwards, and Helmholtz, by experiments,
concludes that the highest possible excursions of the stirrup cannot
exceed $\frac{1}{15}$ $\frac{1}{14}$ mm. Experiments also demonstrate that, when the
handle of the hammer is driven outwards, no strain is exerted on the stirrup, and consequently there is no risk of that bone being torn out of the oval-window. When the handle of the hammer is forced inwards, the head of the stirrup rises, owing to the unequal attachments of its base.

6. The three points, the end of the short process of the incus, the end of the long process of the incus, and the end of the manubrium, lie so nearly in a straight line, that these two bones constitute a simple lever, the fulcrum of which is the short process of the incus, the point at which force is applied is the end of the manubrium, while the third point of the lever is represented by the end of the long process of the incus and the stapes which is attached to it. Measurements of the different areas of this level show that the excursions of the end of the anvil and, consequently, of the stirrup are only \( \frac{2}{3} \) as great as those of the handle of the hammer, but the pressure is \( 1\frac{1}{2} \) times as great as that exerted against the handle of the hammer.

The remaining portion of this section is taken up with an explanation of the peculiar buzzing or jarring sounds heard in the ear when certain notes are struck, resembling what is heard in musical instruments when something is loose. This phenomenon Helmholtz considers due to a rattling of the cogs of the anvil and hammer against each other; the anvil not being driven outwards during the outward phase of a vibration as far as the hammer, the cogs of the two bones are separated, and as the hammer returns on the inward phase of the vibration, it strikes against the anvil. A description of Helmholtz’s model of the tympanic apparatus, now familiar to all physicists, follows.

7. The peculiarity of the membrana tympani lies in the fact that it is a curved tense membrane, its tension modified by the handle of the hammer which can draw it inwards. The peculiar curvature is due to the circular fibres, which draw the radial fibres towards one another. A mathematical discussion follows on the relative displacement of the surface of the membrana tympani and the end of the handle of the hammer, from which it follows that a relatively small amount of air-pressure on the membrane, will counterbalance a strong force acting on the handle, and the tension of the radial fibres can increase under slight changes in the air-pressure. In proportion then as the action of the air-pressure increases, the excursions of the handle become smaller, a fact proved by Helmholtz by experiments on preparations, where he found that the free central portions of the membrane were displaced more than three times as far as the tip of the handle.

The acoustic properties of membranes curved like the membrana tympani, have been but little studied, but Helmholtz proves, by experiment, that such a membrane gives a powerful resonance.

The last section of the work is taken up with a mathematical discussion of the mechanism of curved membranes.

The work of the translators is exceedingly well done, especially when we consider the terse, almost defective, style of the author, and they deserve the thanks of the profession for this addition to English scientific works.

J. O. G.

In this paper, the author discusses the position which medicine now holds in relation to the sciences, and describes some of the most important of the recent discoveries.

Without undervaluing the allied sciences, he insists on the impossibility of applying their laws to the varying condition of the system in disease. "Pure Science," he says, "admits no uncertain elements, but we cannot wait for her elimination of them; and when a physician, upon a balance of probabilities alone, acts, as he must, with a promptness flush with his decision, he is only like the navigator who trusts to his instincts in the tempest as readily as to his observations in the calm." He maintains that the practice of medicine is essentially an art, and quotes the remark of Sir William Gull, that "if it were possible to conjoin in one human intelligence, all that is now known of all other sciences, each knowledge would be compatible with entire ignorance of clinical medicine."

After an interesting discussion of this subject in its various branches, the author gives simple accounts of some of the uses of the sphygmograph, the thermometer, the ophthalmoscope, and of electricity, gives a slight sketch of Dr. George Johnson's contributions to our knowledge of cholera and a brief account of the controversy concerning Lörstofer's corpuscles. The paper is well worth the attention of the profession, though written for the better class of general readers.

BOOKS AND PAMPHLETS RECEIVED.


Treatment at St. Luke's Hospital, N.Y.—The Medical Record, June 16, 1873, states that to reduce the temperature in such diseases as pneumonia, scarlatina, &c., cacao butter is employed. The body of the patient is to be thoroughly rubbed with it twice a day.

Gunpowder Burns.—An old prescription, supposed to be very serviceable in burns of this nature, is bichloride of mercury one grain to the ounce of water, to which one drachm of tincture of benzoin is added.

Mosquito Netting as a Surgical Dressing.—In those cases where it is desirable to keep up support and pressure, and at the same time permit the free escape of all discharges from the wound, or ulcer, or whatever it may be, the ordinary mosquito netting used for a bandage meets all the indications. If the discharge is considerable, a pad of oakum may be placed beneath the parts to secure the discharge, thus insuring perfect cleanliness.
CONSIDERABLE interest has been manifested by the English journals in a trial which took place lately at the Wicklow Assizes, arising from a case of death from chloroform poisoning, occurring at Sir Patrick Dun’s Hospital, in the service of Dr. Bennet. The facts of the case are about these. The patient, an unusually stout and powerful man, had sustained an injury to his toe of such severity as to render its removal necessary. He was accordingly placed upon the table the morning after his entrance, and chloroform was administered by Dr. Bennet’s first assistant, a young physician, while one student took the pulse and a second kept his finger upon the femoral artery. The patient struggled violently, and the apparatus was removed two or three times from the man’s face. It had been on altogether about three minutes, and three drachms of chloroform had been given, when respiration suddenly ceased, and simultaneously the pulsation of the radial and femoral arteries grew weaker and stopped. All efforts at resuscitation were in vain, and the universal testimony was that the man was dead at the moment that the dangerous symptoms were discovered.

The plaintiff endeavored to prove that sufficient precautions in the administration of the anaesthetic had not been taken, and some interesting facts were brought out by the testimony. It was stated that chloroform should not be given to produce the third stage of anaesthesia, as it is called, unless the heart be carefully examined beforehand, and a physician of experience hold the pulse. Moreover, the counsel for the plaintiff brought forward the advantages claimed for ether and the dangers of chloroform, although the discussion of this point was not as complete and satisfactory as one could have supposed or wished. On the other hand, the witnesses for the defence testified that it was not necessary in all cases to examine the heart, that the usual precautions had been taken, and that the man died from “a sudden arresting of the heart’s action, the result of his idiosyncrasy.”

While we think that the jury would have been guilty of an act of great injustice had they found for the plaintiff, we regret greatly that advantage was not taken of this opportunity to test the question of ether versus chloroform, and to determine to what degree men are liable for damages who confess that they use an agent dangerous to life, in spite of every precaution that can be taken, on the ground of its convenience. There does not, then, exist the man of whom it can be said that he does not possess an idiosyncrasy as fatal to him if he breathes chloroform as the most deadly poison.
It is not our purpose here to urge again at length the great advantages of ether in anaesthesia; but we cannot refrain from pointing out in this connection the striking difference in the amount of care requisite for the administration of the two agents. Who that has visited the European, and many American hospitals as well, when chloroform is given, has not been struck with the great amount of precaution found absolutely necessary for the safety of patients under its influence, with the anxiety of operating surgeons and the frequent interruptions to operations which the least intimation of danger gives rise to. We heard a distinguished Dublin surgeon once confess that there was not a moment during a surgical operation that one half his attention at least was not given to the patient's pulse and respiration. On the other hand, it is a well-known fact that ether can be given by the most unskilled hands, by the nurse, the ward-tenders, the patient's friends, if circumstances render it necessary, while the surgeon, confident in the safety of his patient, gives to the operation in question his undivided attention. Anxieties and delays are unknown. As a natural consequence of this, it can be pushed to a degree of insensibility, and used for a length of time that would make a chloroformist shudder, and may be given freely in the most trivial operations and examinations. Who can doubt that suffering humanity is not more benefited by such an agent as this, and who, once accustomed to its use, would abandon it for the inconvenience, to say nothing of the dangers, of chloroform.

We are in receipt of the first annual report of the Charlestown Free Dispensary, with the Act of Incorporation and By-Laws of the Charlestown Free Dispensary and Hospital. It is but little over a year ago that a dispensary was established in Charlestown, where hitherto there had been no organization, except that of the overseers of the poor, to meet the wants of a city of thirty thousand inhabitants. A few months later, it was thought advisable to add a small free hospital to the dispensary, and the legislature was petitioned for an act of incorporation. The act was approved, and the hospital work will be begun as soon as the necessary funds have been raised. Meanwhile, the success of the dispensary has become an established fact, as will be seen by the report of the Superintendent, Dr. Edward J. Forster. The character of the gentlemen who have this matter in hand, and the excellence of the medical staff will, we have no doubt, ensure the success of this much-needed charity.
The Propagation of Cholera.—The discussion on cholera, in the section of Public Medicine, at the meeting of the British Medical Association, was well maintained and of considerable interest. The theory advanced by sanitary authorities of the Russian government, headed by Dr. Pelikan, that cholera is endemic in Russia, and that the disease, as seen at the present moment there and elsewhere on the Continent, deserves the name, not of Asiatic or Indian, but of European or Russian cholera, was not sustained. The experience of the English and Indian cholera authorities is directly opposed to this, their view being that the disease was sustained by fresh waves of the epidemic from India and Persia. Dr. Pettenkofer's views, that direct and indirect contagion was not the means of propagation of cholera from man to man, were constantly opposed, it being maintained that cholera is chiefly propagated by drinking water. Many of the speakers expressed strongly their belief in the communicability of cholera by direct contagion especially.

Correspondence.

Down East, Aug. 10th, 1873.

Messrs. Editors,—Back in these woods, we see strange things. A few days ago, I took out of the Post Office a long letter from New York, beginning "Dear Doctor," and ending "Your Friends Lilly & Phelan Evansville Indiana." No unnecessary punctuation, as you will observe. What was my surprise in calling on Dr. B., at Congregation Creek, to find that he had one, just like it, and he tells me that they have been sent widely through the country to all of us country doctors. On further examination, we found it was only a fac simile letter. I had thought, before, that these gentlemen were very kind; and had wondered from whom they quoted that first line, which reads—"You ask, 'Is it worth my time to investigate?'"; for I was confident that I never wrote it.

First, let me answer that question. Yes, if you think it worth while in putting the names of regular recommenders upon their circulars. We country doctors know how easy it is to get names in Boston and New York and Chicago, to put on circulars for general distribution. We've seen the names before, and don't think that the owners of them ever consider long before writing them down.

Secondly. Please say to Messrs. Lilly and Phelan that there's no use in putting the names of regular recommenders upon their circulars. We country doctors know how easy it is to get names in Boston and New York and Chicago, to put on circulars for general distribution. We've seen the names before, and don't think that the owners of them ever consider long before writing them down.

Thirdly. Please say to Messrs. Lilly & Phelan that, up in this country, we make cheese. We are in the habit of putting a little piece of one of the stomachs of the calf in milk, to make the cheese separate from the milk. If we leave it too long, and in a warm place, it begins to digest the milk.

"Well, what of that," says Messrs. L. & P. Why—

Fourthly, that we've been using "Nature's Solid Extract of Aromatic Liquid Pepsin," and simply prevented the cheese-press from catching dyspepsia. That's all.

Fifthly. Please say to the other country doctors, who don't know any more than we do, that pepsin can be very easily made an "Aromatic Liquid Pepsin" by cutting up a calf's rennet bag and bottling it up in half a gallon of pale sherry. It won't cost nearly so much, and mother used to feed her thirteen babies on it, at the rate of a teaspoonful to a cup of milk, with a little sugar mixed in, and a scratch of nutmeg on the top.

I am told that you can buy rennet bags cheap in Boston market. They are much better, I believe, after drying for weeks; and I should prefer them to pepsin. They will keep longer and better.

I am very truly yours,

Rusticus.
The death of Dr. W. O. Johnson was sudden and unexpected, and will be received with sincere regret by his many professional friends. His late article in the *North American Review*, a notice of which will be found in another column, has attracted very general attention, and is good evidence of his ability as a writer. The profession has lost in him an able man.

The report of the Providence (R. I.) City Registrar for the month of July is of interest in connection with the new regulation, in regard to stale fruit or vegetables, adopted by our own City Board of Health. The danger from the use of such articles is greater in the month of August, and we cannot but think that the regulation is a wise one. Mrs. Winslow’s soothing syrup tells its own tale. Those only who have charge of the sick poor of our large cities can tell how often “Mrs. Winslow” has soothed the little sufferers to that sleep “that knows no waking.” We quote the following extracts:—

“Of the 55 decedents in July from diarrheal diseases, 22 were American, and 33 of foreign parentage. According to age, there were 41 under 1 year, 10 from 1 to 2 years, and 4 over 40 years, making a total of 55 decedents from diarrheal diseases. It is certain that these infants under 2 years of age, nearly all of them under 1 year, did not contract their disease from eating fruit and vegetables. We have several times, in past years, analyzed the mortality from diarrheal diseases with precisely similar results. As we find, therefore, that considerably more than three-fourths of all the mortality from diarrheal diseases, except Asiatic cholera, in Providence, is found in infants under two years of age, we are compelled to believe that, in this city at least, neither ripe nor unripe fruit and vegetables have any perceptible influence upon the mortality from these diseases. The infantile decedents from diarrheal diseases are killed by the effects of heat and impure air, especially the latter.

“There were two deaths in July from poisoning. One was from an overdose of morphine; the other from Mrs. Winslow’s soothing syrup. There ought to be some power to stop the sale of a rank poison like Mrs. Winslow’s soothing syrup, under the false pretense that it is perfectly safe.”

How to Cure a Cold.—The whole fraternity of editors, and all their readers, owe a debt of gratitude to one of their members, the editor of the *Dumfury News*, for a report of the following case, instituted by, though not practised on himself, but by one of his editorial corps. “He boiled a little boneset and horehound together, and drank freely of the tea before going to bed. The next day he took five pills, put one kind of plaster on his breast, another under his arms, and still another on his back. Under advice from an experienced old lady, he took all these off with an oyster-knife in the afternoon, and slapped on a mustard paste instead. His mother put some onion drafts on his feet, and gave him a lump of tar to swallow. Then he put some hot bricks to his feet and went to bed. Next morning, another old lady came in with a bottle of goose oil, and gave him a dose of it on a quill, and an aunt arrived about the same time from Bethel, with a bundle of sweet fern, which she made into a tea and gave him every half hour until noon, when he took a big dose of salts. After dinner, his wife, who had seen a fine old lady of great experience in doctoring, on Franklin Street, gave him two pills of her make, about the size of an English walnut and of similar shape, and two tablespoonfuls of home-made balsam to keep them down. Then he took a half-pint of hot rum, at the suggestion of an old sea-captain in the next house, and steamed his legs with an alcohol bath. At this crisis two of the neighbors arrived, who at once saw that his blood was out of order, and gave him half a gallon of spearmint tea and a big dose of castor oil. Before going bed he took eight of a new kind of pill, wrapped about his neck a flannel soaked in hot vinegar and salt, and had feathers burnt on a shovel in his room. He is now thoroughly cured, and full of gratitude.”—The Sanitarian.
AN interesting case is reported by M. Dienlafoy in which an infant, six hours old, was poisoned by a dessert spoonful of laudanum, and from whose stomach the poison was extracted, before it had taken fatal effect, by means of the pneumatic aspirator.

The members of the New Hampshire Medical Society, accompanied by their wives, will visit Centre Harbor on Tuesday, September 16, and hold the second Semi-annual Meeting of the Association.

The North Essex Medical Society of Mass. have accepted their invitation to be present.

Mr. John Wood, in his address on Surgery, in speaking of anaesthetics, remarks:—"We follow but tardily, in this old country, in that combination of pleasure with utility which has led lately the inventive genius of our transatlantic brethren to the association of aesthetics with anaesthetics, in the performance of operations under these agents to an obligatory accompaniment upon the organ, and an appropriate address by a popular preacher improving the occasion on behalf of morals."

A Dilemma for Teetotallers.—We should like to ask the members of the legislature if they are prepared to continue the use of bread as an article of diet, in the face of the following fact, given in the Medical Press and Circular:

In the Chemical News for May 30th, Mr. Bohus says that he has detected a small percentage of alcohol in six samples of new bread purchased at different shops in London. He says, "It is probable that the amount of alcohol contained in bread is too small to be of any dietetic importance, but it may perhaps be worth while to notice that forty 2-lb. loaves are about equal in alcoholic strength to an ordinary bottle of port."

Foreign Bodies in the Stomach.—A case is recorded in Il Raccoglitore Medico (no. xvi. 1873), by Dr. Benedetti, in which a nun, aged twenty-two, after suffering for some days from symptoms of gastric fever, with obstinate vomiting, ejected from her stomach a brass cross, 1-3 inches long, the cross piece being 1-4 inches long. She remembered having swallowed it when she was nine years old. In the interval it had not produced any inconvenience. A case is also related in the Imparitdia for June, in which a soldier swallowed a table-spoon. Severe dyspnoea followed; and in about three quarters of an hour the spoon was ejected by vomiting.—London Medical Record.

Mortality in Massachusetts.—Deaths in Seventeen Cities and Towns for the week ending August 23, 1873.


Precedent Diseases.—Cholera infantum, 105—consumption, 45—dysentery and diarrhoea, 29—typhoid fever, 19—scarlet fever, 13—cholera morbus, 3.

One death from smallpox occurred in Holyoke.

George Derby, M.D.,
Secretary of the State Board of Health.

Deaths in Boston for the week ending Saturday, August 30th, 170. Males, 92; females, 78. Accident, 5—abcess, 1—soreness, 1—infarion of the bowels, 3—disease of the bladder, 1—disease of the brain, 6—calculus, 1—cancer, 2—cerebro-spihal meningitis, 1—cholera infantum, 47—cholera morbus, 1—consumption, 17—convulsions, 2—debility, 2—diarrhoea, 6—dropsy, 3—dropsy of the brain, 3—drowned, 1—diphtheria, 2—dysentery, 5—crysipelas, 1—scarlet fever, 7—typhoid fever, 5—disease of heart, 1—intemperance, 2—disease of kidneys, 4—disease of the liver, 2—congestion of lungs, 1—infarion of the lungs, 6—malaria, 8—pyemia, 1—old age, 5—paralyis, 1—pleurisy, 1—premature birth, 1—pneumonia, 2—perineal disease, 1—rheumatism, 1—scarified, 1—suicide, 1—disease of the spine, 1—tbares meconium, 1—itching, 1—unknown, 2—whooping cough, 1.

Under 5 years of age, 91—between 5 and 19 years, 17—between 20 and 49 years, 16—between 40 and 60 years, 27—over 60 years, 16. Born in the United States, 133—Ireland, 26—other places, 11.
In an interesting paper by Dr. Burt G. Wilder, entitled Cynophrenology, which appeared in the Journal of Jan. 23, ult., allusion is made to the insufficiency of our present methods of gauging the relative excellence of the different mammal brains.

It is remarked with truth that neither the absolute size of the brain, nor its relative size as compared with the whole animal, nor the number or complexity of its fissures satisfactorily indicates its quality. The first test would place the brain of the elephant and the whale too high in the scale, the second, too low.

There is, however, one test, first suggested, as I believe, by Prof. Meynert of Vienna, which seems to be a satisfactory and practical one. That is, stated briefly, the relation in point of size or weight between the corp. quadrigem. and the cerebral lobes; or, in other words, the relation in point of development between the so-called “posterior division”* of the caudex cerebri (Hirnstamm) with its ganglia of origin, and the “anterior division” with its ganglia, i.e. between the tegmentum cruris cerebri with the thalamus opticus and the corp. quadrigem., and the pes (or basis) cruris cerebri with the corpus striatum and nucleus lenticularis.

This latter tract (the pes cruris) is concerned, according to Prof. Meynert, almost exclusively in the transmission of voluntary impulses to the muscles, and stands, therefore, in a fixed relation to the cerebral lobes, in which the voluntary impulses are originated, throughout the entire mammal series. The development of these two structures, viz., pes cruris and cerebral lobes, culminates in the brain of the adult man, whereas the tegmentum cruris with the corp. quad. &c. find their greatest development in the brains of the lower mammals, as the following table will indicate:

A table is annexed to the paper "Über die Bedeutung des Zweifachen Ursprungs des Rückenmarkes, &c.," showing that, among the large number of mammals examined with reference to that point, in none did the development of the pes cruris equal that to which the corresponding part of the human brain attains.

This seems a not unsuitable place for recording Prof. Meynert's manner of examining the brain in the autopsy room, which is of value because it permits, more than any other, of the exact localization of defined lesions, without at the same time so mutilating the parts as to make them unfit for subsequent microscopic or other examination. The method aims, in the first instance, at the enucleation of the cerebral ganglia from their bed in the white substance of the lobes, so that all the surfaces of these parts may be freely examined.

Each cerebral hemisphere, according to Prof. Meynert, presents at both surfaces the form of an arch, of which one branch is represented by the frontal extremity, the other by the temporal extremity of the hemisphere.

The lumen of the arch of the inner surface is the lateral ventricle, of that of the outer surface the fissure of Sylvius. At the bottom of the fissure of Sylvius lies the island of Reil; directly beneath, and scarcely separated from this, is the surface of the nucleus lentiformis, a cone-shaped ganglion which lies crosswise in the axis of the arch. Surrounding this, in a curve concentric with that of the main arch, is the corpus striatum (nucleus caudatus), whose large anterior extremity (caput) reaches forward and downward, buried in the frontal lobe, to the anterior perforated space, where it is nearly met by the dwindling posterior extremity (cauda) which curves backward and downward along the lateral ventricle, in which it is everywhere visible, nearly to the extremity of the temporal lobe.

The proposed dissection throws these two false arches into one true arch by cutting out this ganglionic mass which fills its lumen.

The knife has for its guide, in the fissure of Sylvius, the limits of the island of Reil; in the lateral ventricle, the border of the gray surface of the corpus striatum which runs along its inner angle. The principal details of the operation are as follows.†

The brain, removed in the usual way, is laid down upon its convexity, and, the membranes having been torn away as far as is

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* Nucleus extraventricularis corp. striat.
† Given from memory; I do not know that they are to be found in print.
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requisite, the temporal lobe on both sides is dissected upwards by a series of cuts opening into the lateral ventricle on one hand, and the fissure of Sylvius on the other, and made in accordance with the rule given above.

The next step is to raise the medulla oblongata and cerebellum, and tear away the membranes beneath them which cover the great transverse fissure of the brain. Then, by a second series of cuts made from behind forwards, the mass of ganglia, principally at that part the thalamus opticus, is separated from its connections with the occipital and parietal, and the posterior half of the frontal lobes.

It only remains to enucleate the caput corporis striati from its bed in the white substance of the frontal lobe. This is done by laying the knife transversely on its flat with its edge just in front of the anterior perforated space, and cutting forwards and downwards. If the cut has not been carried forward far enough to surround the bulging head of the ganglion completely, the gray color of its cut surface will reveal the fact. The entire operation, apparently so complicated, is after some practice performed in a very few moments and with great precision. If it be desirable to weigh the different lobes and ganglia separately, as Prof. Meynert is in the habit of doing, the dissection may be continued as follows; otherwise the examination may be completed by making a number of cuts into the various parts perpendicularly to their surface.

A longitudinal cut through the corpus callosum separates the hemispheres from one another.

To separate the frontal lobe from the parietal, the fissure of Rolando, inasmuch as it is a constant fissure common also to most of the apes, is chosen as a guide. The operation is best performed with a single cut of a large pair of scissors.

The parietal lobe is separated from the occipital by cutting through with the scissors from the occipito-parietal fissure into the posterior branch of the fissure of Sylvius.

In separating the thalamus opticus from the corpus striatum, one blade of the scissors is placed to the inner side of the stria cornea, the other to the outer side of the tractus opticus. The cut passes through the capsula interna with little or no injury to either ganglion. The limits of the corp. quadrizem., cerebellum and pons Varolii are sufficiently evident. The medulla oblongata ends with the completion of the decussation of the pyramids.

Prof. Meynert has divided in this way, and weighed in parts, upwards of 1000 brains, with interesting results, not yet fully made public. Among them, the disproportionate atrophy of the frontal lobes in cases of progressive paralysis of the insane, may be mentioned as having been constantly found. In one or more cases of unilateral chorea, the corpus striatum of the opposite side was found to have lost weight distinctly.

The accuracy of the results obtained in this manner is the more
to be relied on, in consideration of the fact that if a loss or gain in weight affecting any given part is only apparent, it will be found compensated for by a corresponding gain or loss in the complementary part, and the observation thereby controlled. The membranes are left adherent to the lobes to which they belong.

The thickness of the cortex cerebri may be estimated by a cut, made always at the same point, and in the same direction.*

Clinical Lecture.

DISEASES OF THE EAR.

By CLARENCE J. BLAKE, M.D.

GENTLEMEN,—It will be a great advantage to you, as general practitioners, to be able to make a proper examination of the ear. By this is not meant, simply, that you should be able to use the instruments employed for that purpose, but that you should also have a sufficient knowledge of the appearances presented by the meatus and membrana tympani in health and be able to recognize the changes which accompany disease. In the majority of diseases of the ear, it is not possible to form a positive diagnosis without such an examination; symptoms of an alarming character may result from a simple and easily remediable cause, as in the severe tinnitus aurium, vertigo and nausea, which may result from the pressure of a plug of cerumen upon the membrana tympani or the excessive pain and deafness caused by a boil in the meatus, while, on the other hand, very serious changes may occur in the structures of the middle ear, unaccompanied by any subjective symptom. The frequency with which diseases of the organ of hearing accompany other affections, makes it especially advisable for you to have some knowledge of their diagnosis; the more so, that the ability to make a careful examination will not infrequently give you the clue to the explanation of what otherwise might seem obscure symptoms.

In the subjective symptoms accompanying pregnancy and following childbed, in the affections of the middle ear accompanying the exanthematos diseases of children, in the long train of aural diseases following the catarrhal troubles so frequent in this climate, and in many other diseases all of which are liable to come under your care as general practitioners, you will find this little instrument, the aural speculum, backed by a proper understanding of its use, a most valuable addition to the armor with which you equip yourselves on entering the field of medical practice. With it you will at least be able to determine what cases are amenable to treatment, what cases require immediate treatment, and, something which is of almost equal importance, what cases judiciously to leave alone. I should hesitate in urging you to devote any special degree of study to this branch of surgery, since it has been so far elaborated as fairly to entitle it to rank as a specialty and because your general studies cover so ex.

* For this purpose a small, graduated glass tube, with sharpened edges, which has recently been described, would be of service. A piece of the cortex is simply punched out, and examined through the glass. (v. West-Riding Hospital Reports for 1873.)
tensive a field, but it would be impossible to present to you too strongly the advantage which you will gain by some knowledge of aural surgery, provided that knowledge so far as it goes be thorough, and of this you will be able to convince yourselves in attending any aural clinic. So far as the use of the instruments is concerned, the examination of the ear is a very simple matter; to understand what is seen is much more difficult and can only be attained by repeated practice.

The parts presented to us for examination are the external auditory canal and the membrana tympani, and, in case of perforation or destruction of the latter, the inner wall of the tympanic cavity.

By turning the ear toward the light, drawing the auricle upward and backward and pressing the tragus forward, we can at most see but a short distance inward, except occasionally where the canal is unusually large and straight, when it is possible to see a portion of the membrana tympani, and that not distinctly; the view of the inner end of the canal is prevented by the double curvature of the passage and by the presence of hairs growing about the meatus. To obtain a satisfactory view, it is necessary to straighten the canal as much as possible and to push the hairs aside; the former may be accomplished by pulling the auricle upward and backward, thus bringing the long axis of the outer portion (the cartilaginous portion) of the canal in a line with the inner (osseous) portion of the canal. For the accomplishment of the latter object, various instruments have been invented. First among these, Kramer's bivalve speculum long has been and still is extensively in use. With several advantages over the simpler method of examination, this instrument possesses two very decided objections; through the openings between the valves, the hairs thrust themselves into the field obstructing the view, and the pressure upon the delicate integument lining the auditory canal, when the speculum is unduly extended as may easily be the case, is apt to cause pain and sometimes more serious results. The simple tubular speculum of von Tröltzsch and other aurists accomplishes its object much more satisfactorily, and is, moreover, more readily handled. Before introducing the speculum, however, it is necessary to choose the method of illumination; for this purpose we may employ direct sunlight or direct artificial light, or, better still, diffused light (by day) thrown upon the ear from a concave mirror. Direct sunlight, as a rule, is too dazzling, the eye becomes fatigued, and we are soon incapable of distinguishing those fine points of variation in form of the membrana tympani which play so important a part in the diagnosis of aural diseases. Artificial light presents a disturbing element in the prevailing yellow color which changes the delicate shades in the coloring of the membrana tympani. Diffused light has none of these objections, and, when concentrated by the concave reflector introduced by von Tröltzsch, is of sufficient illuminating power and readily under control.

The ear to be examined being turned from the light source, the light is to be reflected upon the ear from the mirror held in the hand, or fastened upon the head; the entrance to the auditory canal should first be carefully examined to detect any malformation, the presence of a foreign body, or evidence of any change, the result of disease; the auricle should then be seized between the ring and middle fingers of the left hand and drawn upward and backward, and the speculum
held in the right hand, gently introduced; when fairly in place, it may be held by the rim with the fore finger and thumb of the left hand; in this manner both auricle and speculum are completely under control, the right hand being at liberty to use the mirror. Two words of caution are necessary in using the speculum: firstly, do not endeavor to elevate the outer portion of the auditory canal by means of the speculum alone, move the auricle, also, in the desired direction; unpleasant consequences might ensue from undue pressure, as in the use of the bivalve speculum; secondly, little or nothing is to be gained by thrusting the speculum into the passage—passing the instrument beyond the line of the growth of large hairs in the meatus and proper manipulation of the auricle are sufficient to ensure a clear view. The speculum having been placed in position, the light should be thrown upon it from the reflector, care being taken to have the opening in the centre of the mirror on a line with the long axis of the speculum; through this opening, which brings the eye of the surgeon on a line with the point of greatest illumination, the examination may be made. We look down a narrow passage, somewhat flattened laterally, about an inch and a quarter in length and lined with integument continuous with that of the auricle. This lining becomes thinner and more delicate as it passes inward, until it is finally reflected upon the membrane which terminates the external auditory canal and separates it from the cavity of the middle ear. This membrane is not a simple, but, as you know, a very complex structure, the basis of which consists of fibrous tissue arranged in two layers, the fibres of the outer layer radiating from the centre, while those of the inner layer follow the outline of the periphery of the membrane running nearly at right angles to the former. The fibres of the outer layer are continuous in a nearly equal degree throughout the expanse of the membrane, those of the inner layer, however, being massed together at the periphery and diminished in number near the centre. In addition, there is an outer or dermoid coat continuous with the integument of the meatus, and an inner or mucous coat continuous with the mucous membrane of the middle ear. Recalling the more minute description given in the lecture on the anatomy of the membrana tympani, you will perceive how admirably this arrangement of the fibres of the membrana propria and of the delicate outer and inner coats is adapted to the performance of the functions demanded of the membrana tympani, in protecting the middle ear and vibrating at the touch of the sound waves conveyed to it through the air in the external auditory canal. You will readily see, moreover, that, in consequence of disease of the middle or outer ears, this structure will be subject to variations from the normal standard in two ways principally, variations in position and variations in color; both of these may occur intrinsically from pathological changes in the membrana tympani itself, or extrinsically as the result of pathological changes in the two divisions of the ear, between which it forms the dividing line. Removing a normal membrana tympani, which may be done by carefully dividing the incus-stapes articulation, cutting away the bone with exception of that portion in which the membrane is inserted, and examining it with regard to position, we find, firstly, that it is at an angle of about 45° to the long axis of the meatus, the lower portion being furthest inwards, and secondly, is not a plane surface like the head of a drum, but that the centre is de-
pressed, the result being that, while the general form is that of a shallow funnel, its concave surface directed outward, the sides of the funnel from the centre toward the periphery are convex outward; this may be easily illustrated by placing a weight on the centre of a drum-head, and is shown in the accompanying drawing of a section of the membrana tympani. Holding it toward the light, we find the general color to be a yellowish gray, which forms the ground tone of the color of the membrana tympani in situ. This ground tone is varied in the normal ear by the reflection of the coloring of the integument lining the external auditory canal; and, the membrana tympani being semi-transparent by the reflection of light from the middle ear, the coloring of the membrana tympani, therefore, is made up from the reflection of light from the walls of the external auditory canal, from the surface of the membrane itself, from the light passing through it into the middle ear and reflected through it again from the walls of that cavity. Looking through the speculum, we find that only a portion of the membrana tympani, about four fifths of its whole surface, is visible, the contour of the floor of the auditory canal hiding the anterior inferior portion from view. In the anterior superior portion of the membrane, close to the periphery, is a projection of a yellowish white color, the short process of the malleus (a), and extending downward from this point nearly to the centre of the membrane a yellowish-white line, the long process of the malleus (b) (manubrium mallei); at the end of the long process, and extending anteriorly toward the periphery of the membrane, we see a particularly bright spot in the form of an isosceles triangle, its apex at the end of the long process, its base extending nearly to the limit of the membrane (c), the light thrown in at the meatus being reflected from this portion of the membrana tympani, and the contour of the surface giving it this peculiar form.* These three points, the short and long processes of the malleus and the light reflex, are the landmarks to be sought for in exploring the membrana tympani; in addition, are to be noted the elevations of its surface, extending in front of and behind the short process, the anterior and posterior folds and the dim line of light in the posterior superior portion indicating the position of the descending process of the incus, and caused by the light which is reflected from it through the membrane.

Having once determined the relative position and appearance of these portions of the membrana tympani in its normal condition, a standard has been acquired by which to measure the importance of any variations and the inference which may be drawn from them as to their possible cause; as, for instance, an undue prominence of the short process, fore-shortening of the long process, and prominence of the posterior fold would indicate that an excess of pressure from without had forced the more mobile portion of the membrana tympani inward. Should there be no evidence of change liable to produce this effect in the outer ear, the cause must be sought for deeper in. In the normal ear there is a nearly equal degree of atmospheric pressure on both sides of the membrana tympani; should the communication of the middle ear with the pharynx be cut off from whatever cause, a portion

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* Luce has shown this effect is produced by throwing light on the inner surface of a metal tunnel.
of the air in the former cavity would in time be absorbed, the result being a partial vacuum and diminution of the atmospheric pressure from within; the preponderance of pressure from without would, therefore, drive the membrana tympani inward, with exception of certain immobile portions. We may go still further and determine, in a measure, the duration of this pressure. It would naturally be expected that, when a certain force is expended upon the whole surface of the membrane, the weaker portion would give way first, from lack of circular fibres; this vulnerable point is about the centre, directly in the track of the triangular light spot. A depression of the membrane would prevent the reflection of the light and the continuity of the reflex would be broken; this would be the first evidence of change in the contour of the membrana tympani; later on, the whole of the surface becomes depressed and the reflex is lost altogether, or represented only by two small spots, one at the end of the manubrium, and the other at the periphery. The variations in form which this light reflex may present are like the changes of the amebae, "perplexingly wonderful, and wonderfully perplexing," unless we keep in mind that it is the convexity of the surface and the angle of inclination which it bears to the axis of vision which gives its peculiar triangular shape to the light reflex, and that a break in the triangle implies a variation from the normal position of the membrane corresponding to the hiatus. Aside from indicating changes in the contour of the membrana tympani, the light reflex serves another diagnostic purpose; since it is a reflection from the outer surface of the membrane, its presence implies the regularity and smoothness of the outer coat; should this latter become thickened by disease, the reflex will disappear, or may be presented only by the glimmering phantom of its former self, its outlines preserved but merely indicated, not strongly marked. The two processes of the malleus and the light reflex, therefore, indicate changes in contour, due to extrinsic causes.

We have now to consider the changes in color due to extrinsic causes. The general color of the membrana tympani is, as we have seen, of a yellowish gray; this has warmth imparted to it by the reflection of the flesh tints from the auditory canal, lightness by the reflection of light from the walls of the tympanum, this being especially the case in the posterior portion opposite the promontorium, and depth by the bluish tinge of the shadows where the yellow light, passing through the membrane, is lost in the deeper portions of the tympanic cavity. As instances of changes in color due to pathological processes in the middle ear, congestion of the mucous membrane of the middle ear, as it occurs in the first stage of otitis media, gives a reddish tinge; serous and purulent accumulations in the tympanum, a transparent and an opaque yellow tinge; mucus, a grayish tone; and blood, a deep red color to the membrana tympani. Unless the contour of the membrane is very seriously changed, the presence of the light spot, however, shows that the membrana tympani is itself intact, and that these changes in coloring are due to extrinsic causes alone. Pathological processes in the membrana tympani which may effect any one or all of its layers result, as would be expected, in changes both of form and color. These may be confined to a small portion of the surface, as for instance in calcareous deposits, or may include the whole membrane, as is the case in myringitis; in the former case, the change is principally one
of color, in the latter, of both color and form. Where the changes are very great, as may be seen in an inflammation which affects, more or less, all the layers of the membrana tympani, the landmarks may become entirely obliterated, the light reflex disappears, the malleus is no longer visible, and what we suppose to be the membrana tympani is an irregular plane or convex surface of any shade of color between a vivid red and a dirty yellow. In this, as in many other cases where ocular examination alone is not sufficient to determine the exact condition, use may be made of the probe to bring the sense of touch to the assistance of the surgeon. This tactile examination has been elaborated by Prof Miot, of Paris, who uses probes of various forms. A fine silver probe, tipped with cotton, is sufficient for the purpose; it should be introduced carefully, under good illumination, and properly employed does no harm, and is a valuable aid in diagnosis.

MEDICAL EXPERTS.—With certain medical gentlemen there seems to be a strong desire to be considered medical experts. Especially is this disposition shown in cases of questionable insanity before our courts. We have always considered that to be an expert required a thorough and practical acquaintance with the subject, but the apparent necessity of the times seems to have rendered this unnecessary. The pleas of moral insanity, emotional insanity, and the like, are now considered to be such forlorn hopes that the lawyers seem to be willing to take the opinion of any one who may volunteer it. The consequence is, we are getting a new instalment of experts not known or recognized by the profession, but nevertheless of value as figure-heads. At a recent trial in New York, we saw a number of respectable medical practitioners lending their names to the court and stultifying themselves by the expression of opinions for which they had no possible foundation. The study of insanity has been recognized as a specialty for the last quarter of a century; and it is fair to suppose that there are thousands of questions that can be put by an attorney which are unanswerable, save on the basis of a very extensive practical experience in the treatment of the disease. A physician who has not such an experience, places himself in a false position by claiming to be qualified to give an opinion. There would be no disgrace for any practitioner to acknowledge incompetency in this respect, if called upon. We hope that, in future, any such who may be urged for an opinion may have the moral courage to acknowledge ignorance before it is made so evident in a crowded court-room, and through the columns of the daily papers. It is also obviously unfair to the real experts on insanity—the gentlemen who have the best opportunities for studying the disease—to have the crude opinions, formed by a hasty glance at some authority, foisted upon the public as representing the advanced views of the present day. It is just such cases as these that give the legal profession the whip-hand of the medical profession, and give rise to the complaint, on our part, that the former never lose an opportunity to make fools of us. We believe that every one has his place; and if some of the medical tortoises trust to the legal eagles to teach them to fly, they must learn, sooner or later, that the higher they are taken into the air the more dangerous will be their fall when left to their own resources.—New York Medical Record.
Progress in Medicine.

REPORT ON ANATOMY.

By Thomas Dwight, Jr., M.D.

[Concluded from p. 239.]

Vascular System.

The distribution of the finer arteries to the brain is discussed by Heubner, in the Allgemeine Med. Central Zeitung, Dec. 21, 1872, and by Duret, in the Archives de Physiologie, March, 1873; the latter, however, considering at present only those of the medulla and pons. He finds that the very small arteries may be divided into three classes. Those of the first class are lateral, and supply the roots of the cranial nerves; those of the second are median in origin, and run to the ganglionic masses near the floor of the fourth ventricle; and the third class, coming from various sources, supply the medulla itself. Heubner studied the manner in which the smaller arteries divided, and found that those supplying the ganglia of the base of the brain did not ramify in the same way as those supplying the convolutions and the subjacent white matter. At the base, according to him, each small artery has a definite region to nourish, and does so independently of its neighbors; but, on the convexity of the brain, the arteries anastomose so as to form a rich net-work before sending the terminal branches to the interior.

The Circulation in the Small Intestine.—Dr. Arnold Heller (Proceedings of the Royal Society of Leipzig, 1872, Heft 1 and 2) has given his attention incidentally to this subject. He has examined the intestine of dogs, cats, pigs, hedgehogs, rabbits and men, and finds that while the plan is not quite the same in these animals, it, in one point, agrees in none of them with received views. The point in question is the circulation in the villi. In almost all anatomies and physiologies, there is a more or less diagrammatic figure of a villus, with an artery and vein running to the point, with anastomosing branches covering the surface. This, our author says, he has never seen. According to him, the artery runs to the end of the villus before giving off branches, except in man, in whom they begin about the middle of the villus. In man and the rabbit, the vein begins at the apex and runs into the network in the mucous tissue without receiving any tributaries in its course. In most of the others it begins near the base, taking the blood from the capillary net covering the villus.

Nervous System.

The Distribution of the Glosso-pharyngeal Nerve in the Pharynx and Tongue. By Jacob, of Munich.—Not having seen this text book, we give the most important conclusions from Virchow and Hirsch's Jahrbuch for 1873. Just as in the intestines there are twoplexuses of nerves (Auerbach's and Meissner's), situated between the two layers of muscular fibres and beneath the mucous membrane respectively, so there are two similarly situated networks in the pharynx, formed by anastomosing branches of the glossopharyngeus, the vagus and the sympathetic. The stylo-pharyngeal branch of the facial frequently
joins the glossopharyngeus on its way to the tongue. The distribution of the glossopharyngeus in the tongue is regulated by the papillae circumvallatae, which it supplies with one set of branches, another going to the organs of taste. The nerves of the two sides usually unite near the foramen cecum. Ganglia are always found in connection with this nerve, both in man and animals, but their number varies considerably in different individuals.

Prof. Axel Key and Dr. Gustav Retzius, of Stockholm, who are preparing an elaborate work on the anatomy of the nervous system, give a preliminary account of their views on the membranes of the cord, the lymph spaces and some points of structure, in Schultz's Archiv, vol. 9, heft 2. The most interesting part is that which treats of the lymph spaces, showing their relations to the membranes and to the cavities formed by the latter, and the way in which they pervade the entire nervous system. The vexed question, whether the arachnoid is to be considered a closed sac, analogous to the pleura, with a parietal layer adherent to the dura mater, is dismissed as of little importance; for but one layer has any significance, namely, that one which, being free between the dura and pia mater, divides the cavity into a subdural and a subarachnoid space. In the neck, the arachnoid is very close to the dura, being joined to it by many bands of connective tissue, which are less frequent lower down. The subdural space is larger below than above, and the reverse is true of the subarachnoid. The ligamentum denticulatum divides the latter into two portions, which, however, are in pretty free communication. The anterior space has bands similar to those of the subdural space, running from the arachnoid to the pia, but in the posterior space they are far more numerous and more membranous, forming a great many partial subdivisions of the space. In the median line, these bands are so marked that they are called the septum posticum. The pia mater consists of two layers; the superficial is a loose tissue, forming a number of chambers, more or less perfect, opening into the subarachnoid space. The deep layer, pia intima, adheres very closely to the cord; so much so as to follow every vessel into the interior, forming a canal around it. These canals are the so-called peri-vascular spaces, and, of course, are continuous with the subarachnoid space, from which they can be injected far into the cord. The spinal nerves are at first surrounded by two canals, the inner, from the subarachnoid space, being separated, by a prolongation of the arachnoid from the outer, which comes from the subdural space. The two spaces unite in or about the ganglion of the posterior root, and extend throughout the nerves, existing even around the sheaths of the primitive nerve fibres. The authors have frequently seen, in medullated nerve fibres, the constrictions described by Ranvier (vide first Report), which are caused by the sheath bending in so as to touch the axis-cylinder. They also confirm his views as to the regular appearance of the nuclei of the sheath, one between every two constrictions, which are nearer together in small than in large nerves.

The Termination of Nerves in Glands and in Striated Muscular Fibre is discussed. in the same journal, by Kupffer (vol. 9, heft 2) and by Arndt (vol. 9, heft 3) respectively. The former studied the salivary glands of the cockroach. As a nerve comes to an acinus, its structureless sheath becomes continuous with the structureless mem-
brana propria, and the nerve runs into the substance of the cell. It
does not go to the nucleus, as some observers maintain, but toward a
kind of capsule, which really is the blind end, or rather beginning, of
an ultimate duct. The author has never seen a nerve reach this cap-

sule, and is the more inclined to doubt that it does so from having seen
it divide after entering the cell.

Till the structure of a striped muscular fibre is more thoroughly un-
derstood, it is vain to expect to settle the manner in which nerves end
in it. Arndt gives a good review of the various opinions, and a valu-
able contribution to our knowledge of certain points. He holds that
the elevation, marking the point of junction of a muscular and a ner-
vous fibre, is of the same character in the higher animals and the in-
vertebrates. He finds that the neurilemma of the nerve is continuous
with the sarcolemma, so that the elevation is situated under the latter,
as is maintained by Kühne. After the nerve is inside of the sheath,
no very definite or reliable data as to its termination are as yet to be
expected. Arndt finds, also, a network of nerves between the fibres,
which he thinks is formed by sensory nerves, the motor ones going
into the fibres.

**Uterus.**

The shape of the uterus has been studied by Hagemann, by means
of injections from the vagina. (Archiv für Gynäkologie, vol. 5, heft
2.) His specimens include casts of the uterus of the infant, and of
women of various ages who have and who have not had children. The
cast of the uterus of the infant shows evidence of a posterior median
depression in the uterus, and also of ridges on both the anterior and
posterior walls, but particularly the former, running toward the orifices
of the tubes. The antero-posterior diameter of the cavity is even
smaller in the young virgin than in the infant; it is increased after
childbearing, and, independently of this, by advancing years. The
cavity enlarges gradually from the os internum with straight sides, ex-
cept in the case of those who have been mothers, with whom it en-
larges suddenly, the sides being convex outward. After pregnancy,
the cervix is shorter, and the orifices, particularly the external one,
are larger. Hagemann's method is good, but his paper leaves the im-
pression that the number of experiments is too limited to justify much
generalization.

**Placenta.**

The authors quoted in this connection in the second report, are all
believers in Hunter's sinus system, of which Mr. Braxton Hicks is
the most active opponent. The Hunterian theory is clearly defined
by Dr. J. Matthews Duncan, in the Edinburgh Medical Journal for
January. "It is that the mother's blood passes, in the curling arte-
ries, through the decidua serotina, to be diffused through the substance
of the placenta, and then returns to the uterine sinuses of the mother
through utero-placental sinuses; that, as it is diffused through the sub-
stance of the placenta, it flows in cells, spaces or caverns, which ex-

tend from the cadaneous portion of the decidua serotina to the placen-
tal chorion over the whole extent of the organ; that these cells, spaces
or caverns are partially filled or nearly choked up with tufts of fætal
villi." Dr. Duncan then goes on to show that, in spite of partial separa-
tions, this cavernous space is one and continuous throughout by
gently pushing a small air-bubble through it. Mr. Hicks denies this
theory entirely, in a paper published in Obstetrical Transactions, vol. 14. He considers the results obtained by injections to be quite untrustworthy, and due to rupture of the delicate walls of the vessels or to more extended laceration. He denies that colored water injected into the placenta will return by the vessels on its uterine surface, as a wax injection does, according to Hunter. He ignores Dalton’s experiments with air, which, indeed, are very damaging to his theory. He argues that there is no evidence of any transition stage between the sinus system and a preceding arrangement, so that the former either existed from the beginning or does not exist at all, and maintains, from dissections made at various stages of pregnancy, that the latter is the case. Perhaps the strongest point made by Mr. Hicks is the occasional absence of blood in the intervillar spaces. As he observes, it is far more difficult to account for its absence if it be normally there than for its presence if it be not, for, in the latter case, a small laceration of a vessel is all that is necessary. He has four times examined the placenta in situ, from the fourth to the sixth month of pregnancy, and twice found no blood between the villi. The following is a short sketch of the most important of his views of the structure of the organ. There is a membrane, the chorion, on the inner side, and the mucous membrane of the uterus, decidua serotina, on the outer, and prolongations, villi, from the chorion are pretty firmly attached between and around the lobules of the decidua. The space between the latter is very small, and contains some serous fluid, which he suggests may be thrown out from uterine follicles, which open through the decidua into this space. Each decidual lobule is supplied by a “curling artery,” which breaks up in the centre into branches running toward the periphery, where proportionately large veins with most delicate walls return the blood to the uterus. It is by the rupture of these veins that Mr. Hicks accounts for the results of injections which have led to the general acceptance of the sinus theory.

Topography.

Topographisch-chirurgische Anatomie des Menschen von Dr. Rüdinger (Brust und Bauch). Munich. 1873.

This volume comprises the first two parts of a large work on topographical anatomy. It treats of the thorax and abdomen. Besides having several wood cuts in the text, it is illustrated by many colored plates, taken from photographs of frozen sections and similar preparations. These plates are above praise; they are additional proofs of Rüdinger’s great talent for demonstration. The horizontal sections through the thorax and abdomen are particularly instructive, and the vertical one through the foetus, showing the relation of umbilical vein, the ductus venosus and vena cava are clearer than diagrams could be. Unfortunately, the illustrations are the best part of the work; the text is too meagre for a work of such pretension, and a reference to the plates is too often substituted for a definite description. The author divides the space in the middle of the thorax into a cardiac and supracardiac region and the posterior mediastinum. The first of these is defined by the pericardium, but no definite limits are assigned to the others. This, we think, is an omission, for even if such limits do not exist, purely conventional ones are valuable, as they enable us to place structures more accurately. In spite of imperfections, there is much to praise in the work, the description of the peritoneum is remarkably clear.

Vol. Lxxxix. No. 11a
A Guide to Urinary Analysis, for the Use of Physicians and Students.

This little volume of Dr. Piffard's is a complete guide to the quantitative estimation of the most common constituents of the urine, and contains valuable rules for the preparation of all of the standard solutions necessary for the volumetric analysis of these substances, the third chapter being devoted entirely to the preparation of reagents for both the quantitative and qualitative analysis of the urine. The use, however, of the Troy system of weights throughout the book, instead of the metric system, which is universally used in all works relating to quantitative analysis, detracts somewhat, in our estimation, from its value.

For the determination of the color, Vogel's color table is recommended, although that table is not included in the work. Those physiological or pathological conditions which give rise to an increase or a diminution of the depth of color in the urine are not alluded to at all, nor, in fact, is the importance of variations in the amount of any of the normal constituents spoken of; an omission which diminishes very much the value of the book, designed, as it is, as a guide for the use of the medical student.

In regard to the estimation of urea, both Davey's and Liebig's methods are given, together with Dr. Flint's table for the calculation of the amount of urea from the volume of nitrogen evolved in the former method. The necessary rules and precautions to be taken in the performance of these analyses are accurately described, but the scientific explanation of the processes by a statement of the chemical changes which take place is utterly ignored. Heller's approximative method for the determination of urea is not mentioned, although approximative as well as accurate methods for the estimation of phosphoric and sulphuric acids and of chloride of sodium are given. The speedy method for determining a diminution of the chlorides by means of one drop of a standard solution of nitrate of silver, according to Heller, is also not mentioned.

In testing urine for albumen, the only test recommended is the heat test with the subsequent addition of nitric acid under the name of the "heat and nitric acid" test. But no allusion is made to the action of an excess of nitric acid alone upon albumen, which, when used in the proper manner, forms by far the most delicate qualitative test for albumen, and even the amount present in the specimen may be approximately determined by the thickness and opacity of the zone formed. Again, specimens of urine are sometimes met with, in which it is impossible to obtain a satisfactory result by means of the heat test; such specimens, for example, are turbid urines, which can not be rendered clear by filtration. Of the preparatory treatment necessary in such cases and the most advantageous test to be employed, no mention is made.

The appendix contains three tables. The first is a small table giving the average amounts of urea, uric acid, phosphoric acid, sulphuric
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acid and chloride of sodium in a fluid ounce of urine. The second is
a table for the conversion of the degrees of the Fahrenheit and Centi-
grade thermometric scales into each other. The third is for the con-
version of the millimetre scale to that of the English inch.

It is much to be regretted, that Dr. Piffard, who is eminently well
qualified for the work, did not extend his volume so as to include an
examination of urinary sediment (of which nothing whatever is said)
together with the physiological and pathological significance of varia-
tions in the amount of normal constituents, instead of confining it; as
he virtually does, to quantitative analysis. He could thus have given
to the profession a complete guide to urinary examination, which is
so sadly needed by the medical student, who is now obliged to resort
to foreign works.

E. S. W.

The Diseases of the Stomach. Being the third edition of the "Diagnosis
and Treatment of the varieties of Dyspepsia." Revised and enlarged.
By Wilson Fox, M.D., F.R.C.P., F.R.S. etc. etc. London and

Any carefully written work regarding indigestion will always meet
with favor, so constantly is the stomach brought to the notice of the
physician by direct and indirect complaints.

Those individuals who pass through life unaware of the presence of
this important organ are comparatively few, though many of them are
pleased to be called "bilious" rather than dyspeptic.

The present edition of Dr. Fox's work is in part enlarged by the
addition of chapters concerning gastric ulcer and cancer, originally
written for and published in Reynolds's System of Medicine, and
revised by the insertion of numerous references and observations relat-
ing to recent investigations.

The first part of the book describes the symptomatology purely,
objective and subjective, the second and greater portion being devoted
to special diseases, among which the neuroses occupy a prominent
position. The evidence of system is pronounced, in consequence the
book will yield rapid results to the physician who seeks an explana-
tion of unfamiliar phenomena.

Where Dr. Fox speaks with positiveness regarding the effect of
remedies, the reader may be assured that a critical comparison has
been made between antecedent and consequent.

The first edition presented the results of a large amount of original
work done in part, if we are not mistaken, in Virchow's laboratory
several years ago. And referring more particularly to the pathologi-
cal anatomy of the walls of the stomach, the reader will notice that
the present edition does not lack in the treatment of this subject.

The book has evidently been written for the benefit of medical men,
and is not likely to become the table-ornament of the fashionable
parlor or the frequented club.

Though the subject, not the name, is popular, its treatment is
thorough and detailed, a fact well worth observing at a period when
pseudo-medical treatises seem to be written as advertising media for
the author's benefit.

The Therapeutic Effects and Uses of Mercury as influenced by "The
Report of the Edinburgh Committee on the Action of Mercury, Podo-
phyllin and Taraxacum on the Biliary Secretion. By Wm. H.
DOUGHTY, M.D., Professor of Materia Medica and Therapeutics in the Medical College of Georgia, Augusta, Atlanta, Georgia.

The author of this pamphlet offers to the well known report of the Edinburg Committee, the well known objections which may be summed up by saying that experiments on healthy dogs are for practical purposes and, perhaps scientific also, less useful than clinical observation on sick men. He thinks that investigations upon the action of the liver are best made by a study of the feces. Unfortunately, however, he does not give any more accurate method of conducting this somewhat repulsive inquiry than observation of the color, which, although it largely depends upon bilious coloring matter, is too complex a result to give accurate information upon its various factors. We hope the author will give in more detail his positive data and views upon the matter. We apprehend that, although much might undoubtedly be learned from examination of the feces, yet, until this chemical analysis becomes less offensive and less difficult, the greater mass of clinical observation will lead to but somewhat vague scientific results on the subject.

BOOKS AND PAMPHLETs RECEIVED.


A New Substitute for Quinine.—The British Medical Journal, June 7, 1873, states that among the species of drugs exhibited in the International Exhibition at Vienna is the Echisses Scholaris, a plant of the natural order of Apocyneae. It is especially abundant at Luzon, in the Philippine Islands; and its bark has long been used by the natives, under the name of dita, as a remedy in all kinds of fever. An apothecary in Manila has given the name of ditaín to an uncrystallizable very hygroscopic substance which he has discovered in it. The principal Spanish physician in Manila, Dr. Miguel Zina, has given it to numerous hospital patients, and has found that ditaín is not only a perfect substitute for quinine, but that its use is not followed by the disagreeable results which often attend the administration of the latter drug. It is given in the same doses and in the same way as quinine. In many cases, also, its activity as a tonic was well marked. The ditaín is prepared from the bark in the same way as quinine from cinchona; 100 grammes of bark giving two grammes of ditaín. A single tree yields a large quantity of bark without injuring its growth. It is calculated that the price of ditaín in Europe would be about 3s. 6d. to 4s. per ounce.
The success of the forty-first annual meeting of the British Medical Association was even greater than had been expected. In addition to the number of distinguished foreigners who honored the meeting by their presence, the attendance of the members of the Association was so unusually large that the preparations for their reception proved to be quite inadequate. The large number of valuable papers read, and the character of the men who participated in the proceedings, speak well for the prosperity of the Association, which now seems to be at its height. The reports of the daily general meetings are replete with interest, and the smoothness with which they were conducted is in strong contrast to the tempestuous character of the meetings of our own unfortunate Association.

The exhibition of patients and the annual museum we have already alluded to; we find, also, an account of a series of interesting physiological experiments. The exceedingly diversified character of the proceedings is quite noticeable. Everything was done to make the sojourn of the visitors in the city as agreeable as possible, and hospitality on the part of the London members does not seem to have been wanting. Soirées and excursions were numerous. The annual dinner, which followed the close of the meeting, owing to the limited accommodation, was attended by a very small proportion of the members, and although honored by the presence of Mr. Gladstone and many other distinguished men, was not at all on the scale that it should have been on such an occasion. It was voted that the next meeting should be held at Norwich, and that Dr. Copeland, of that city, should be the president elect. The tone of the English press was highly appreciative of the Association and its work, "and discussed with mingled admiration and respect the great spectacle of an united profession associating through all its ranks on an equal footing, combining for public purposes in an organization which is purely representative, and pursuing a course self-reliant and influential for good."

The public has heard a great deal this summer about the unfortunate Miller's river, and, as is well known, the chief responsibility for this nuisance has been laid at the door of the slaughtering establishments in that neighborhood. We called attention lately to the fact that this matter, about which there has been so much dispute, was reported Vol. LXXXIX. No. 11b
upon at length nearly a year ago by a commission most eminently qualified to express an opinion upon such a subject. The communication from Squire & Co., in to-day’s issue, attempts to show that that portion of the commissioner’s report relating to slaughtering establishments referred to practices of former years. The wording of the report on this point is very plain, and cannot, we think, be twisted into any such meaning. Mr. Squire, it will be seen, asserts, moreover, that the causes in question do not exist now, and that the principal recommendations of the commission are being carried out. How far the smell from the wash of half a million of hogs slaughtered annually may be neutralized by the remedies which are now being applied remains to be seen.

The question of sewerage is, indeed, one of great importance to the city, intimately connected with its future growth and prosperity, and one full of difficulties, which are constantly increasing with every new filling, whether of Back Bay, Ruggles Street, or other districts. Moreover, it is closely associated with the drainage of surrounding municipalities. How far the condition of the extensive flats surrounding us, at low tide, in all directions, and the condition of the soil itself on which Boston stands, is affected by the present system of sewerage, is but one of the many questions relating to this important matter. We are far from feeling reassured by the report of the Committee on Sewers, and we think the sooner the whole matter is thoroughly investigated by competent engineers the better. It seems to be by far the most important sanitary question with which we in Boston have to deal.

A CASE OF FEMORAL ANEURISM CLOSELY SIMULATING MALIGNANT DISEASE.—Dr. George Alexander Gloag, L.K.Q.C.P., of Bristol, England, reports the following case in the British Medical Journal for May 24, 1873:

Edward P., aged 37, of a cachectic appearance, by occupation a pedlar, came under my care on November 5th, 1872, for the treatment of a tumor which occupied the anterior and inner region of the upper half of the right thigh. It was bounded above by Poupart’s ligament, and had a circumference of 27 1/2 inches at its centre, the circumference of the sound limb at the same part being 16 inches. The tumor had a tense elastic feel and a shiny appearance, the superficial veins were enlarged and prominent, and the disease appeared to have involved all the structures of the limb. No bruit or pulsation could at any time be discovered in it. It gradually increased in size, and on December 20th had attained a circumference of 30 inches. The patient suffered intense pain, which was of a paroxysmal character, and required large doses of morphia or chloral for its relief. During severe pain I found that the tumor became harder, and that it increased in circumference to the extent of half an inch, and again sub-
ABSTRACTS AND INTELLIGENCE.

sided, as the pain diminished, to its former dimension. The limb was oedematous below the tumor, the result of venous obstruction. Although there were no glandular enlargements nor symptoms of secondary deposit, the cachectic appearance of the patient, the intense pain he suffered, and the rapid growth of the tumor, together with the total absence of pulsation or stethoscopic sound, induced me to believe the case to be one of medullary cancer, for which operative interference was unjustifiable. About six months previously to the time when the patient came under my notice, a tumor, about the size of a small egg, appeared on the upper and inner side of the thigh, accompanied with such severe pain that the patient was unable to follow his occupation, and was obliged to remain in bed. It grew rapidly from week to week, and the pain increased in proportion. A month or so after the appearance of the tumor, he obtained admission into the Bristol General Hospital. He remained there six weeks, during which time the tumor increased considerably in size, and was then discharged as an incurable case, the tumor being considered of a malignant nature. The patient remained at home about a month, at the termination of which time he was admitted a patient of the Bristol Royal Infirmary. His case being considered one for which nothing could be done, he was removed to his own home in about a fortnight. The patient had usually enjoyed good health, and his family history was good; but he had suffered from constitutional syphilis, and was discharged from the army in consequence of defective vision, the result of specific iritis. There were no evidences of heart disease.

The patient died on December 28th, and on the following day, Dr. Norton, Mr. Dobson and myself made an examination of the body. The knee was bent, the thigh everted, and free movement existed at the hip-joint. An incision was made from the anterior superior spine of the ilium to the symphysis pubis, and another from the centre of Poupart's ligament down the front of the thigh. The latter was afterwards prolonged across the inner aspect of the knee, so as to expose the upper part of the popliteal space. On making the longitudinal incision, the parts gaped widely, and a thin layer of muscular tissue was exposed. On dividing this the length of the thigh, a mass of clot presenting various shades of color appeared. Some of it was partly laminated and of a firm consistence, and needed the assistance of the knife for its removal. Nearly fourteen pounds weight of clot was turned out of the cavity, which was bounded anteriorly and to its sides by the skin, a small amount of subcutaneous fat, and a thin layer of muscular tissue; above by Poupart's ligament; below by the quadriceps extensor tendon; and behind by the eroded femur, the adductors and vastus externus muscles, in a partially disorganized state. The integment showed no symptoms of thinning in any part. The anterior crural nerve was found deeply imbedded in the clot, and was the only recognizable structure in the tumor. An incision was made from the middle of Poupart's ligament to the umbilicus, and thence to the sternum. The kidneys were in a healthy condition; the liver was enlarged, and showed appearances of waxy degeneration. On cutting across the aorta, and dissecting the external iliac artery downwards, it was found that an aneurism existed on the right superficial femoral artery. The femoral artery was then dissected upwards from
the popliteal, as well as possible, to the tumor, and the mass removed for preservation. It consisted of a quantity of laminated fibrine, situated in Scarpa's triangle, where it appears to have burst, and this, I believe, took place before the patient applied for medical relief, at which time the tumor was localized, and about the size of two fists. The epigastric and circumflex ilii arteries were considerably enlarged. The upper part of the femoral artery leading into the tumor was pervious; that immediately below it and leading from it was impervious. This case of diffused aneurism is, I think, worthy of record, on account of the close resemblance of its symptoms to those of malignant disease. If the nature of the tumor had been discovered during its early stage, an effort to cure it might perhaps have been made. This case clearly shows that cachexia, rapid growth and severe pain must not be accepted as sufficient evidence of cancer. In reviewing the history of this case, there are some points which should have suggested its non-malignant character; namely, the absence of lymphatic enlargements, or symptoms of secondary deposit, and of any tendency to ulceration of the skin over the tumor, the favorable family history and the fact that the tumor was definitely bounded superiorly by Poupart's ligament.

Transmission of Cholera by the Medium of Spring Water.—Dr. R. Förster of Breslau, in an interesting article on the communication of cholera, supports the theory that this disease is enabled to assume an epidemic form almost exclusively by means of the poisoning of the sources of wells. As a very conclusive evidence in proof of these views, Dr. Förster shows that there are about a dozen cities and districts situated in Silesia and Pomerania which have thus far escaped all epidemics of the disease. These localities are shown to have this alone in common, viz., that their supply of drinking water is brought from a considerable distance, wells being used to a very limited extent. One of the most striking illustrations of the correctness of this theory is afforded by the fortified town of Glokau, which is built upon both sides of the river Oder. The smaller portion of this town, lying upon the right bank of the river, was visited in 1866 by a severe epidemic of cholera, which carried off 1½ per cent. of the entire population, but which, however, did not extend to the section of the city occupying the left bank of the river. This latter section was ten times as large as the former, and was, moreover, in the immediate vicinity of the barracks in which were confined those of the Austrian prisoners who were attacked with the disease.

In the latter district, the drinking-water was brought from a distance; in the former, the water was obtained from local wells. In other towns which have shared a like immunity from this disease, it has been ascertained, that, although they possessed no water system, their wells were sunk to a great distance in rocks, and were in this manner effectually sealed from all contamination from adjacent privies. The author concludes that the secret of the immunity of the above localities from all cholera epidemics lies in their common system of introducing water from a distance, whereas the prevalence of epidemics in other places is to be ascribed to the transmission of the materies morbi from house to house by means of the contaminated
water sources. The chief source of this contamination in large towns and cities must be the drinking-wells, which are commonly situated within a few yards of the privy, while numerous instances might be cited in which foreign matter has found its way into wells from a distance of several hundred yards.

The fact of the very common contamination of wells situated in large cities has been recently demonstrated by repeated analysis, in which there has been generally detected more or less ammonia, nitric acid and various organic matters.—*Albg. Med. Cent. Zeitung*, June 14, 1873.

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**The Evils of High-Heeled Shoes.**—Dr. v. Rothmund, Sr. (Munich), writes us as follows:

Who would gather violets must not be frightened by the pricking of the thorns, and if one has the courage to cast a lance he must not be frightened off by the women. I do not propose in this paper to distress the reader with a dissertation on the follies of female fashion, but I shall venture to call attention to a few points in connection therewith, and I commence now at the bottom. I have nothing to say then about corsets, upon which folios have already been written, but I have a few facts to bring forward about the clothing of the feet. The high heels lately introduced into fashion change the long axis of the body so that the trunk is directed backwards, and this of course alters the inclination of the pelvis. Such an alteration cannot be without influence upon conception and labor. I leave it to the obstetricians and gynaecologists to collect observations upon these facts. In my own experience I can bring forward one evil resulting from this *bizarre* position of the foot, viz., displacement forwards, even dislocation of the ankle joint. I had a case under treatment where a dislocation occurred as a result of the predisposition thereto by high-heeled shoes, and where the patient was confined to bed for three months, notwithstanding the best treatment that could be devised. Inflammation of the ligaments and the sheaths of the ligaments is much more frequently met with. Finally, an abundance of corns is a product of this shoe dress that is not to be overlooked. Indeed the corn-doctors are the only ones benefited by this refinement of luxury. —*Wien Med. Presse*, June 15, 1873.

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**Cold Infusion of Green Coffee in Gout.**—Dr. Monchaux communicates to *L'Abeille Médicale* his experience in the use of cold infusion of green coffee in the treatment of gout. He directs his patients to take a table spoonful of green coffee, place it in a tumbler, half fill the latter with water at the temperature of the atmosphere, and allow it to stand for twenty-four hours. In the morning the liquid is to be swallowed, an equal quantity of water added, and taken the following morning; thus the same quantity of coffee will serve for two doses. The liquid thus obtained has little savor; it is more or less distinctly green according to the species of coffee employed. Dr. Monchaux does not explain the mode of action of the remedy upon the uric diathesis. He inclines to the belief that it acts against the effects of the disease rather than on the disease itself, and that, in order
to prevent a recurrence of gout, it is only necessary to make a daily use of the remedy indicated by him. He observes that the remedy is an old one, and that, however difficult it may be to explain the precise action, the efficiency of the remedy is acknowledged. He had himself used it during three years, and with the result that his biannual attacks of gout had completely disappeared.—The Doctor.

New Method of Performing the Operation of Lithotomy.—In the June number of the Edinburgh Medical Journal, Dr. Davidson, Physician to the Queen of Madagascar, gives an interesting retrospect of the recent history of lithotomy, and describes a new mode of operation which he has adopted. The staff employed is a modification of Buchanan's rectangular one, the acute angle being replaced by a gentle curve, and grooved in its inner aspect. The form of the external wound is semi-lunar, curved somewhat lower and deeper upon the left side than on the right, in order to afford a freer drain in the side on which the prostatic wound is situated.

"Having exposed the membranous part of the urethra, this is opened, and a guide is introduced along the groove in the staff into the bladder. This guide, consisting of two parallel and connected bars or blades, capable of being separated by means of a screw, forms, when approximated, an instrument about five inches long, somewhat like a female catheter in size, straight, slightly flattened from above downwards, and grooved on the left side so as to permit the bottom point of the knife to slide along without escaping from it. When this guide has been fairly introduced into the bladder, the staff is withdrawn, and the blades are separated by the screw to such an extent as to render the tissues tense. The knife used has a button-shaped extremity to fit the groove in the guide. The blade is narrow throughout, but is slightly triangular, becoming a little broader towards the handle than at the point. This knife is then carried along the groove so as to divide the tense resisting structures, by its edge being brought into contact with them rather than by actual cutting. The blades of the guide are now expanded to a sufficient extent. Should it be found, however, that the required degree of separation cannot be effected without force, the knife may be passed along a second time to cut the structures that still resist. In no case should anything be incised, except what is found to oppose gentle dilatation. The size of the calculus determines the extent to which the knife is to be used and dilatation effected.

"The blades of the instrument having now been separated so far as the size of the stone seems to demand, it serves as a conductor for the forceps into the bladder. They slip along betwixt the blades of the instrument. The stone is then extracted in the usual way. Should the calculus be very large, the knife may be applied in precisely the same manner to the right side of the prostate, thus making a bilateral incision."

The chief advantages of this, as compared with other operations, are the following: 1st. The incision is an exact and discriminating one, and both the incision and the dilatation are in proportion to the size of the stone and the resistance of the tissues.

2nd. The introduction of the forceps is simplified, the guide for the knife serving at the same time as a conductor for the forceps.
3d. Some of the special accidents of lateral lithotomy are less likely to occur in this operation. Among these accidents may be enumerated troublesome and even fatal hæmorrhage; inflammation of the neck of the bladder and pyæmia, caused by bruising; infiltration of urine and pelvic abscesses, the result of too extensive incisions.

Dr. Davidson concludes his valuable paper with the statistics of results thus far obtained in this operation, the patients operated upon showing a very small rate of mortality.

"Mixed Medical Classes."—Judge Ardmillan's opinion, in the Edinburgh cases.

“I fully and respectfully recognize the high qualities, capacities, and vocation of women. I recognize, especially, the fact, that the elevation of women in domestic and social position, is one of the blessed fruits of Christianity. There are few, indeed, who hold intelligent and virtuous women in higher estimation than I do. It is very much for their own sake, and on account of the respect which I entertain for them, that, on this particular point, I feel it my duty to state my decided opinion, that the promiscuous attendance of men and women in mixed classes of medical study, such as anatomy, surgery, and obstetric science, with concomitant participation in dissection, demonstration, and clinical exposition, is a thing so unbecoming and so shocking—so perilous to the delicacy and purity of the female sex, to the very crown and charm of womanhood, and so reacting on the spirit and sentiment which sustain the courtesy, reverence, and tenderness of manhood—that the law and constitution of the University, bound to promote, and seeking to promote the advancement of morality as well as knowledge, cannot sanction or accept such attendance.”


Correspondence.

How to Make Liebig’s Soup for Babies.

The value of this soup, prepared according to Liebig’s directions, is not fully appreciated in this neighborhood, partly, perhaps, because it is not often tried, and partly, no doubt, because it is supposed to be the same thing as the so-called Liebig’s Food which is put up in tins by Savory and Moore. It may be that there is some way of preparing Savory and Moore’s powder so as to make it palatable and digestible. But, although H. R. H. Prince Albert Victor thrice on it well (vide advertisements), it must be confessed that, prepared according to the directions given, it is not very palatable, and, as far as my experience goes, not particularly digestible. The receipt for Liebig’s soup is given in several books in English, but entirely without the details of the process, so that one only finds out how to prepare it well and quickly after a good many experiments. I feel sure, however, that, if the detailed directions which I give below are strictly followed, the soup will be made without difficulty.

(A.) One measure of malt, mixed with one measure of solution of bicarbonate of potash, should be left to stand half an hour.

Malt, ready ground, may be obtained of beer-brewers, though they do not make a business of selling it; it may well be sifted through a coarse sieve, to remove the largest hulls. It is well to buy bicarbonate of potash in half-ounce packages, and dissolve one package at a time in one quart of water. A large wineglass, or small teacup, answers conveniently for a measure.
(B.) Make a porridge of one measure of flour in five measures of milk.

To avoid lumps, mix a part of the milk with the flour first, and make it perfectly smooth before adding the rest of the milk. The flour should be of as coarse a quality as can be obtained.

It is not very easy to boil the porridge enough to swell the starch thoroughly and yet not burn the mixture. The most convenient vessel is a milk- or farina-boiler, though any two vessels of such sizes that one will make a water-bath for the other will answer the purpose. It is easier to swell the starch thoroughly by having but little water in the water-bath and depending on the steam for heating, than by having so much water in the bath that the smaller vessel will dip into it. If there be a fire of hot coals at hand, it is well to make sure that the porridge is thoroughly boiled by taking the vessel which contains it out of the bath and letting it stand on a toasting rack over the hot coals, but not touching them. It is less likely to burn in this way than if put on the iron surface of a range or stove.

(C.) Let both the water-bath and the porridge cool down to about 140° or 150°, add the malt and potash slowly while stirring, and let it stand at the above temperature fifteen or twenty minutes, when it becomes thin and sweet.

When the porridge has been thoroughly boiled, it is best to fill up the water-bath, so that an even temperature can be maintained. It is certainly possible to get along pretty well without a thermometer, remembering 150° is very hot, but not boiling. Many failures, however, will be prevented by using a thermometer, which can be prepared easily from one of the ordinary, cheap thermometers which are used in dwelling houses, by drawing it out, together with the metal scale, from the black frame, and cutting off so much of the scale with strong scissors that the glass part only will dip into the porridge. If the soup does not now become thin and sweet after standing fifteen or twenty minutes, some mistake has been made.

(D.) Boil it up once and strain it through a sieve and then through muslin.

If it were not boiled up this last time it would sour readily, but, when boiled, it keeps twenty-four hours perfectly well.

(E.) Dilute it with an equal quantity of water for a young child, and gradually increase the strength till the child is eight months old, when it may be taken in full strength.

It should be diluted only just before using, and kept in a perfectly cool place.

CH. P. PUTNAM.

MILLER'S RIVER.

MSSRS. EDITORS.—We heartily rejoice that our recent petition to the Board of Aldermen has attracted attention from so high an authority as your JOURNAL, and that you have given it the favorable notice apparent in your article on the subject published on the 21st inst. It is highly satisfactory to us when we read that you “sympathize strongly with Mr. Squire's views on the subject of the drainage of Boston and its vicinity.” Also, that you perceive that “the danger and expense there (London, Eng.) incurred will sooner or later be inevitably visited upon us.” Furthermore, that you deem “this subject of general drainage quite as important a matter to the city as the remedies to be applied to Miller's river.” Your allusion to our “motive” in presenting the petition we need scarcely remark upon. No one can know that motive but ourselves, and we know that the only object which we had in view was to direct attention to the true causes of the vapors and odors which afflict the vicinity of Boston. We know that those vapors and odors do not emanate from the slaughter houses, as has been so often alleged, but that Boston, at least, can find the origin of her troubles nearer home. Motives are of little consequence; but facts are all-important.

You notice our statement, that “no board of health, committee on health, grand jury or other official body has ever been able to fix upon the slaughter houses the stigma of having originated or produced the offensive smells or deleterious vapors;” and you point out the fact that the joint commission of last year did attribute to those establishments a large share of the responsibility of making Miller's river what it is. That commission said, in effect, that the sewerage of Cambridge and Somerville contributed some-
CORRESPONDENCE.

what; that the filth brought by the in-coming tide was there precipitated, thus adding to the general result; but that mainly from the use made of the basins by the slaughtering establishments was the nuisance produced. There is an apparent contradiction here to what we stated as to official bodies fixing the stigma of producing the nuisances upon the establishments referred to, but we think that it is only apparent, and not real. The commission was evidently considering the condition of the river bed, and the causes which had accumulated thereupon a vast body of filth; and, in the opinion of the members of the commission, it was the discharge of blood and other matter from the slaughter houses (we think they must have meant in past years), which had gone far to make the territory a mass of corruption. While we may respectfully differ with the commission as to that point, we do not propose to discuss the subject here and now, and we desire merely to say that the causes alluded to by that honorable board have entirely disappeared. The blood, and all other things which would be likely to pollute the stream or the river bed, are now carted away to distant places, every day, and thus can no longer (if they ever did) contribute to the production of nuisances. Admitting, for the sake of the argument, that the commission was right in saying that the river bed had become what it had by reason, mainly, of the use made of the basins by the slaughtering establishments, it is still true, as stated by us, that no official body had ever fixed the stigma upon the establishments themselves of originating or producing the offensive odors. They may have done something in past years (not now) to make the river bed filthy, but the establishments themselves do not originate or produce deleterious vapors and discharge them into the atmosphere, and no official body has ever been able to say that they do. In other words, the slaughter houses may have helped, in the past, to befoul Miller's river, but they are not to-day doing either that or anything else which should subject them to public animadversion, or to destruction by the State Board of Health. As you are well aware, the filling of the river is rapidly going forward, the sewers will soon be commenced, and thus the principal recommendations of the joint commission are being carried out. When these methods for the abatement of a great nuisance are fully completed, it will be time to turn attention to the further recommendations of the commission, which is, "to enforce those sanitary principles which the Commonwealth has already adopted with reference to industries of the class peculiar to this neighborhood." If, after the filling has been done and the sewer constructed, there is still a nuisance, and that nuisance can be traced to the slaughter houses, then, we say, with the whole community, abolish the business so far as that vicinity is concerned. We have perfect confidence, however, that no such day will ever arrive.

But the main object of this letter is to urge you to do all in your power to secure proper attention on the part of the authorities of Boston to the great subject of a better system of sewerage than now exists in this city. It is the province of your Journal to deal with all matters relating to the public health, and whatever you say on that most important topic will be considered as coming from the highest authority and entitled to the greatest weight. It is not for us to instruct you in regard to a subject which you have doubtless studied far more closely than we have, and which you doubtless understand in all its details; but we are deeply impressed with the potent fact that there has been great neglect and judicial blindness in quarters where diligence and foresight should have been shown, and it is apparent that much discussion of a very forcible character must ensue before anything effectual will be done to remedy the vast evils which at present exist. One of the greatest dangers is that the evil odors which frequently afflict the residents of Boston will continue to be (as they have been in the past) attributed to causes which are not at all responsible for them. Miller's river may, if you please, be a stupendous cess-pool of filth, poisoning the whole adjacent atmosphere, but it should not be made the scape-goat for the sins of other localities quite as detestable; and so long as it is thus made the scape-goat, will public attention be diverted from causes of dis-
comfort and disease which ought to be forthwith removed. As it is now, the residents of the west end of Boston frequently attribute to Miller's river sickening and disgusting odors which never could have emanated therefrom. They could not have come from there for the simple but sufficient reason that, at the time they were perceived, the wind was from an almost directly opposite quarter and blowing freshly. A brisk south-west breeze will bring from the flats of Charles river and from the filthy waters of that stream (as they are at low tide) perfumes that are not at all agreeable; but nothing from Miller's river could, by any possibility, reach any part of Boston on the wings of such a breeze,—and yet it is a common remark on such occasions that “here we have Miller's river and those confounded slaughter houses!” Of course it is useless to attempt to abate a nuisance until its cause is ascertained and its place of production discovered.

There is a very large section of the city of Boston draining into Charles river. The tide-gates keep the sewers closed for hours at a time, or until the tide falls sufficiently to enable the pressure of sewerage behind to open them. During these hours, an immense mass of filth must accumulate in the sewers, and the manufacture of deleterious gases is going on with great rapidity. These gases will find their way out somewhere, and it is one of the problems of the age to contrive some effectual way of preventing them from backing up into the habitations of men and working destruction to health and life. Where the outlets of the sewers open, the sewerage pours out into the river in a copious stream of nastiness, contaminating the water and destroying the purity of the air which holds the gases in suspension.

It is worthy of notice that these vile odors always occur at the time of lowest tide. In certain states of the atmosphere—happily not very frequent—the vapors float at a very moderate height above the surface of the ground, and it is then that we perceive the havoc which it is their mission to work. We perceive them by the evidence of more than one of our senses; for they affect the nostril by their pungent odors, we see the result of their action upon newly painted buildings, and we can almost feel and taste them as they invade our domiciles. Sometimes they last for hours, banishing all comfort and endangering life, but more frequently they depart within a comparatively short time, and as mysteriously as they came. The peculiar condition of the atmosphere seems to have a vast deal to do with their becoming perceptible to human organs, and, as these conditions are exceedingly variable, no surprise should exist that the results are variable also. Probably, at most times the gases rise high in the air and float away, doing no harm to anybody or anything, but occasionally their flight is low, and it is then that they attack mankind and make us all miserable.

However this may be, there should be no pains or expense spared to make these inflections impossible. By a better system of drainage, and by a thorough supervision over all places where water is likely to accumulate and become stagnant, nearly the whole of these evils may become things of the past. As we have said, Boston is constantly befouling Charles river; Cambridge, Watertown, Brighton and Brookline are helping Boston. In Cambridge, only just over West Boston bridge, there is already a sink of corruption called Broad Canal, into which two of the largest sewers of that city empty. This canal connects directly with Charles river! All these causes of unwholesome influences are not only now in existence but are growing from day to day, from month to month and from year to year. They demand attention, and we ask you, as the guardian of the public health, to cry aloud and spare not! Speak of Miller’s river if you will (remembering that it is being filled, however), but speak still more loudly of worse nuisances. We thank you for your article of last week, but many more just like it will be required before the great and much needed reform is brought about. Public attention has too long been fixed upon one spot, and that not the one which is doing the most harm, and every exertion should be made to ascertain true causes and apply true remedies.

JOHN P. SQUIRE & CO.

Boston, August 25, 1873.
Medical Miscellany.

APPOINTMENT.—Dr. F. H. Gerrish, of Portland, has accepted an invitation to deliver a six months' course of lectures on materia medica and physiology in the Medical Department of the University of Michigan.

MR. ERICHSEN, the distinguished London surgeon, is now sufficiently recovered from his illness to appear in professional circles again. He will be prepared to commence work in October at University College.

The announcement of the death of Nélaton, according to the France Médicale, is incorrect. The illustrious surgeon is, however, still very ill.

The Strasbourg Gazette announces that the female medical students, lately forbidden to attend the courses of the Zurich medical school, have applied to the university of Strasbourg for permission to follow their studies there. The medical faculty has refused to receive them.

COD-LIVER OIL BREAD.—M. Bouchut, according to the French journals, has attempted to disguise the unpleasant taste of cod liver oil by combining it with flour in the form of bread. This bread is not at all disagreeable to the taste, and the results of M. Bouchut, from an experience of several weeks, are very encouraging.

BELLEVUE HOSPITAL MEDICAL COLLEGE.—Dr. W. A. Hammond has resigned his professorship. Dr. Janeway is to give the course on materia medica and therapeutics, in addition to the course on pathological anatomy. The diseases of the nervous system will be treated of by the Professor of the principles and practice of medicine.

DR. SCHWEIGGER has been appointed Professor of ophthalmology in the Royal University of Berlin. The Universities of Göttingen and Grieswald are now the only German universities where professorships of ophthalmology are not established, and it is expected that these will soon follow the example of the others.—Berliner Wochenschrift.

The trustees of Jefferson Medical College having requested Professor Joseph Pancoast to withdraw his resignation of the Chair of Anatomy in that institution, he has complied with the request, and will discharge the duties of the chair during the ensuing session.—Medical Times.

The Medical Times and Gazette, in speaking of the late outbreak of typhoid fever, says "there is no evidence that the germs of a specific disease, such as typhoid, can be taken into the cow's system through the channel of sewage grass, be thence excreted by the mammary glands, and, producing no toxic effect upon the cow, can spread enteric fever amongst the children who drink the milk. Such a sequence of events is most likely impossible; but, if possible, there has been no outbreak of fever or other disease in this country which would warrant us in believing that it has taken place."

The practical working of the theory of Dr. Hammond is seen in the case of David Montgomery, an epileptic, recently tried at Rochester, N.Y. It was proved that he was insane from recent convulsions for several days before the homicide; but, on Dr. Hammond's testimony that he was conscious at the time, he was convicted and sentenced to be hung. Drs. Gray and Cook testified to the familiar fact that epileptics often talk and act quite rationally for several days, being meanwhile really insane, and are afterwards entirely unconscious of what has passed, and denied the responsibility of the prisoner. The case was pending for a year and a half, the execution being postponed, until, finally, the prisoner became so evidently and completely demented as to require his commitment to the asylum for insane criminals at Auburn.—Medical Times.
In the catalogue of the medical department of Syracuse university are to be found the names of several lady students.

A CIRCULAR has lately been issued "to the surgeons (Field and Hospital) of the armies of the late Confederate States," calling a convention to meet in Atlanta, Georgia, May 20, 1874. Its object is the advancement of science—"to rescue from oblivion all the important medical and surgical facts developed within the armies of the Confederate States during the late war." Since the war, many of the most talented of the medical staff have died, and their valuable experience lost to the profession. The circular further states: "for the success of this great scientific and historical association it earnestly recommended that the ex-confederate surgeons of each of the southern States at once take such steps as will secure a large delegation. The cooperation of the medical staff of the late confederate navy is respectfully solicited. Besides the contributions to science, the social features of this organization—the revival of old army associations—will be of no secondary interest. The railways of the south, with their usual courtesy, will no doubt grant excursion tickets for this most important occasion." This call is based not only upon the action of the Georgia Medical Association, but on the solicitations of many confederate surgeons throughout the south. We hope this convention will have the good sense not to follow the example of a certain society which met in Virginia lately.

NOTES AND QUERIES.

MESSRS. EDITORS.—I saw, in the Boston Medical and Surgical Journal of April 17, 1873, an article from F. B. Lewis, M.D. Harv., giving his experience in the excision of an elongated uvula, with probe-pointed scissors, with semicircular cutting edges, so as to embrace the uvula whilst closing it, made at his suggestion by W. F. Ford, New York. I want to say that I invented, and had made by Leach and Green, Boston, Mass., in July, 1888, a pair of long, thick, probe-pointed uvula scissors, curved near the points edgewise, so as to make semicircular edges that completely grasped the uvula before cutting it, and have used them ever since. I wrote a description of them to Prof. Lewis A. Sayre, of New York, about the same time. I presume Messrs. Leach and Green will make scissors at any time, from the same pattern, for any surgeon.

N. L. FOLSOM, M.D.

Portsmouth, N. H., August, 1873.

E. C. D., a subscriber to the Journal, wishes to know the best work containing the latest and most reliable views on the treatment of diabetes.

DIED.—At Canton, Sept. 6, of typhoid fever, Thomas W. Flatley, M.D., aged 30.

MORTALITY IN MASSACHUSETTS.—Deaths in sixteen Cities and Towns for the week ending August 30, 1873.


Prevalent Diseases.—Cholera infantum, 110—consumption, 39—dysentery and diarrhoea, 23—typhoid fever, 10—scarlet fever, 13.

GEORGE DERBY, M.D.,

Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Sept. 6th, 176. Males, 90; females, 84. Accidental, 2—apoplexy, 3—inflammation of the bowels, 1—bronchitis, 4—inflammation of the brain, 1—congestion of the brain, 1—disease of the brain, 4—cyanosis, 1—cerebrospinal meningitis, 1—cancer, 4—cholera infantum, 35—cholera morbus, 2—consumption, 21—convulsions, 4—croup, 1—deficiency, 2—diarrhoea, 10—dropsy, 2—dropsy of the brain, 1—drowning, 1—dysentery, 2—diphtheria, 2—epilepsy, 2—scarlet fever, 10—typhoid fever, 5—bilious fever, 1—disease of the heart, 4—homicide, 1—intemperance, 1—disease of the kidneys, 5—disease of the liver, 2—congestion of lungs, 3—inflammation of the lungs, 5—marasmus, 13—noma, 4—old age, 3—premature birth, 5—puerperal disease, 2—stricture of the urethra, 1—teething, 3—unknown, 1.

Under 5 years of age, 97—between 5 and 20 years, 10—between 20 and 40 years, 29—between 40 and 60 years, 29—over 60 years, 20. Born in the United States, 128—Ireland, 32—other places, 16.
Original Communications.

NOTES ON SOME CASES OF CEREBRO-SPINAL MENINGITIS.

By B. D. Gifford, A.M., M.D., Albany.

Read at the Annual Meeting of the Barnstable County Medical Society.

On Monday, March 24th, 1873, I was called to see Mr. C. E., a man about forty-eight years of age. He had been taken with chills and was then suffering from an intense pain in the back of the head and upper portion of the spine, with a hot dry skin, and pulse about eighty-five. There was severe pain in the knee and hand. On Tuesday, there was some swelling of the knee, and the middle knuckle of the hand was swollen, red and very tender. His intellect was perfectly clear. At the same time at which I saw this patient, another member of the family, a boy five years old, was also taken sick. He was seized with severe headache and vomiting. He had a small, rapid pulse, hot dry skin, cold extremities, gastric irritability and urgent thirst; a crop of purpuric spots covered his whole body; they were not raised above the skin and did not disappear an pressure. Very active delirium was present, with no knowledge of surroundings. The next morning, Tuesday, both the father and son remained in the same condition. Large quantities of morphine scarcely seemed to relieve the agonizing pain which the man suffered; he had no delirium then. On the evening of this day, I found them both with their heads drawn forcibly back against the spinal column, and it was not till then that I recognized the terrible character of the disease with which I had to deal and pronounced it cerebro-spinal meningitis. On Wednesday, Dr. Seabury, of Orleans, saw these patients with me and confirmed the diagnosis. The man had gone on rapidly from bad to worse; delirium set in with involuntary dejections. There was great restlessness with a constant desire for change of position; and he was moving about perpetually, seeking rest and finding none. The head was drawn so forcibly back that swallowing was difficult and painful. The cervical muscles and upper portion of the spine were extremely tender. He gradually passed into a comatose state, with dilated pupils, loss of the power of swallowing and labored breathing, and died on Sunday night, one week from the attack. No eruption was noticed on this patient. Early on Thursday morning, the fifth day.

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of the boy's illness, I was called to see him on account of his violent delirium. I found him screaming at the top of his voice, and exerting so much muscular power that it required a strong man to restrain him from throwing himself from the bed. His head was resting on the spine and the spine curved upon itself. I immediately subdued him with ether, and held him so till under the influence of an opiate. On Monday, May 31st, there was strabismus, one pupil being much larger than the other; considerable delirium with occasional intervals of intelligence. Neck forcibly retracted; extremities cold; pulse 110. Tuesday, April 1st, pulse 120. Intellect better; strabismus, with ptosis of left eye-lid, mild delirium; not much pain in head, respiration 30. The tongue, which had been covered with a white fur, and which, by the way, in all the cases which I have seen, was broad, tremulous, with a white coating and with the papillæ projecting through it, had begun to clean from the edge.

On Saturday, 5th, there was an increase of the brain disturbance as shown by more violent retraction of head and by lack of intelligence; the pulse was 120. The day following, the pulse was up to 136. There was complete deafness and blindness. When his body was not touched, he seemed utterly oblivious of externals, lying on his side in a perfect stupor; his pupils, however, showed some reaction to a bright light.

The cutaneous sensibility was greatly exalted; the lightest possible touch disturbed him. He seemed to want to be let entirely alone. He continued in much the same condition from day to day, one day worse, the next better; at times refusing all food and medicine, taking it into his mouth and spitting it out again. The blindness continued for several days; the hearing gradually improved. April 21st, twenty-ninth day of his illness, his pulse was 96, spinal irritation subsided and his neck was flexible; some strabismus, with great improvement in strength and intellect. From this time on, he slowly but steadily improved. His intellect was at first very weak, and all voluntary motions were uncertain and wavering. Fear has been a symptom almost constant with him. Seeing some imaginary object, he would begin to cry and dart under the bed clothes. It was impossible, latterly, to induce him to lie in the bed, so that for the last three weeks he has been almost all the time in the nurse’s arms. His pulse is now very slow, not above 70, sometimes much less. Tongue perfectly clean; he will take nourishment freely, chiefly milk. Has his clothes on and seems fairly on the road to recovery.

The bowels have been very constipated throughout, no dejection being obtained except by cathartics.

I have two other patients in this same family, now sick with the same disease, but for the present will forbear mentioning them, except with regard to treatment. This has been conducted on general principles. During the early stage of the disease, when
CEREBRO-SPINAL MENINGITIS.

there was great vascular excitement, with pain in the head and spine, I have used veratrum viride with bromide of potassium, and cupping at the nape of the neck and between the shoulders, followed by blistering. No measure has afforded so much relief to the cephalalgia and delirium as cupping to the extent of from 1 to 2½ ounces of blood. The delirium would cease, for the time, and the patient drop asleep. As the activity of the disease declined, I have administered full doses of quinine (and at times ammonia) and iodide of potassium, keeping up counter-irritation with cantharidal collodion. During the whole of the disease, I have fed my patients regularly with egg-and-milk mixture, beef tea, gruel and plain milk, together with stimulants. I have found nothing approach hydrate of chloral as a sedative agent; morphia can scarcely be named with it. In one of my patients, the latter not only did not quiet the pain, but made her wild with excitement, though used liberally, while fifteen to thirty grains of chloral would cause a quiet, refreshing sleep, with perfect relief to the pain. No praise, however extravagant, would seem too great to bestow upon this drug for quelling the excitement and procuring sleep in this disease.

With regard to the etiology of epidemic cerebro-spinal meningitis, there cannot be much said positively; but my researches in the four cases which I have had lead me to have some strong surmises. That it is a true blood-poison, I think is indisputable. The manner of its onset by chills, gastric irritability, eruptions, &c., with great depression of the powers of life, point to this. The fact, also, that four members of one family were seized, one after another, all within a week, with the same disease, points to some cause to which they had been subjected in common. Commencing my investigations with these premises, I found that they lived between two hills, or rather on the side of one of them. Between the hills, to the south, was a low, swampy marsh, while on the crest of the other hill was an old burying ground. A short distance east of the swamp was a pond, which was supplied largely from the swamp. There was another pond south of the graveyard, and another at the foot of the hill to the north. The family in which the disease appeared, has always used water from the pond near their house, which receives the drainage from the southern sides of this graveyard. The pond west of the yard has furnished water to two families located on either side of the pond; and the pond at the foot of the graveyard, on the north side of the road, has supplied a family living on the brow of the hill. There has occurred precisely what we might expect with our knowledge of the etiology of typhoid fever. In every one of these families, as far as I can ascertain, typhoid has prevailed. I myself attended one patient who died of it while a resident of one of these houses; and of the four patients with cerebro-spinal disease, two have had typhoid, one of them being the man recently deceased. Hence, I am forced to ask if the use of water, impregnated
with decaying animal matter, has not been the cause of the spinal disease in these patients. The unusual falls of snow during the past winter, and the consequent large amount of water which has percolated through this graveyard and found lodgment in the pond, must have taken up considerable quantities of waste animal matter; and hence it seems pertinent seriously to inquire whether cerebrospinal meningitis, in an epidemic form, does not depend essentially upon the same poison that generates typhoid fever.

REMARKABLE NERVOUS PERTURBATION.

From a paper presented to the Medical Society of the State of New York, by C. A. Robertson, M.D., M.M.S.S., Member of the American Ophthalmological Society, Ophthalmic and Aural Surgeon at St. Peter's Hospital, Albany, and at the Troy Hospital.

The following case illustrates a curious reflex nervous action, and the phenomenon presented is, I believe, quite sui generis. Mrs. S., aged fifty years, was operated on for the removal of a senile cataract in the right eye. Patient was healthy, rather below medium size, and mentally a little sluggish. Her eyes were small and deeply set, with shallow anterior chambers.

A lower section of the cornea was made with Beer's knife, and, in order to secure ample room for the lens to make its exit with facility, the section was effected well in the sclero-corneal junction. After the removal of the cataract, which was readily accomplished, the corneal flap came nicely into apposition.

At the expiration of a week, during which time the patient had been kept very quiet, and before the eye-lids had been separated in order to ascertain the result of the operation, the patient began, for the first time, to complain of pain in the eye. On examination of the eye, union of the corneal flap was found to have taken place properly, but the iris was seen to be badly inflamed. Owing to the intolerance of light, no attempt was made to determine the degree of vision. The pain that had set in at this time increased, and was, from time to time, excessively severe. The malady, an irido-choroiditis, resisted for weeks every means employed for its mitigation.

Early one morning, she sent for me, and, on visiting her, she complained that she was suffering from a most intolerably noisome stench. She seemed unable to find language strong enough to express her disgust for the foul odor that tortured her, but the anguish portrayed on her face supplemented the narration which her tongue inefficiently essayed.

She said that an unpleasant smell commenced the previous evening, and gradually grew stronger and stronger, until now she could bear it no longer and live. She could compare it to no smell she had ever known before, for it was worse than all conceivable bad odors combined, she said. As there was no unpleasant odor in the apartment, perceptible to any one else, this was at once regarded as
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a subjective sensation, referable to a reflex excitation of the olfactory nerve; in other words, it was a neuralgia in a nerve of special sense, and was undoubtedly aroused by irritation of the ciliary nerves consequent upon the operation.

In order to deliver her from her mephitic torture, at least temporarily, I made a hypodermic injection of a solution of sulphate of morphia into the arm. She soon fell into a tranquil sleep, which lasted three or four hours. When she awoke, the detestable odor was gone, and did not afterwards re-appear.

HYSTEROTOMY VERSUS DILATATION.—It is not many years since the introduction of the hysterotome, or some cutting equivalent, for the treatment of mechanical dysmenorrhœa and other uterine disturbances. And never operation so popular. Every woman who could get up a uterine sensation—and very few were unable to do so—was content only when her womb was under daily training with glittering instruments of cunning form. Fashionable ladies divided their time between the milliner and the gynaecologist, and this latter gentleman, when he had forced his way through the entrance of the matrix, vi et armis, felt he had done his country as much service as a United States soldier who should scalp a Modoc. Then came rumors of haemorrhage, and of cellulitis and peritoneal inflammation. Then came doubts and misgivings, and a disposition to back down from the knife to the old method of dilatation—Simpson, we believe, leading the way and confessing that he had shed needless blood. So the hysterotome was threatened with ignominious discharge, like the lancet. Now comes Dr. Percy Boulton, and reads to the Harveian Society of London (Obstetrical Journal for April) an elaborate paper in defence of cutting as against dilatation. He adduces 900 cases operated on by Sims, Emmet, Greenhalgh, Tanner and himself, with only one death, and that in a patient who had tubercular peritonitis previous to the operation. The danger is from haemorrhage and cellulitis. In 100 cases operated on by Dr. Tanner and himself, haemorrhage occurred but once, and was easily arrested, a good recovery following; cellulitis never occurred. In 500 operations by him and Emmet, cellulitis occurred but once. In 300 cases by Greenhalgh, one had profuse haemorrhage, which was relieved by plugging; five had cellulitis, and one fatal peritonitis, as already referred to. Inflammation, says Dr. Boulton, is no more likely to follow cutting than dilatation. On the contrary, the parts being in many instances congested, irritated or inflamed, incision is the appropriate remedy, and gives relief where dilatation would increase the difficulty and danger. Besides, simple dilatation often fails of a permanent cure, just as the extreme dilatation of childbirth is followed by a return of stricture. Dr. Boulton related six cases in which he had both cured dysmenorrhœa and sterility by hysterotomy, after the failure of the other method. In conclusion, he stated that, "although he did not consider the process as a universal panacea for every ailment of woman, and should not run into the extremes that Dr. Henry Bennett had lately indicated as possible, he was nevertheless of opinion that, in proper cases of mechanical dysmenorrhœa, hysterotomy was the most satisfactory mode of cure."—Pacific Med. and Surg. Journal.
Progress in Medicine.

REPORT ON THERAPEUTICS.

By R. T. Edes, M.D. Harv.

Alcohol.

Rabow (Inaug. Diss., Strasburgh, 1872, and Centralblatt, 1873, 336) tries to show, in opposition to previous experiments of Binz and Bouvier (Centralblatt, 1871, p. 801), that alcohol does not prevent a febrile rise of temperature. He reports a case of peritonitis from perforation, in which the temperature rose from 38.8° C. to 38.9° within four hours, notwithstanding the administration of thirteen tablespoonfuls of Hungarian wine (equalling about three fourths of an ounce of absolute alcohol, or an ounce and a half of brandy). This result can hardly be regarded as astonishing, or as furnishing any strong proof against the views previously held. He also took one or two tablespoonfuls of brandy, or twenty-five c. c. of alcohol, at various times, and determined a rise of temperature of 0.01 to 0.03 C.

Daub (Cbl., 1873, 466) criticizes the above experiments, by showing that a thermometer, held continuously in the axilla for an hour or more, often steadily rises 0.03 or more when no alcohol is taken. (That is, the axilla, kept continuously closed, approximates more and more to the interior cavities of the body.) Daub correctly remarks that measurements in the axilla are sufficiently accurate for clinical purposes, but not for physiological experiments, where it is a question of a small fraction of a degree.

Daub further showed that, in a person unaccustomed to alcohol, small doses caused a diminished rectal temperature, as compared with that of other days when alcohol was not used. As the person became accustomed to the alcohol, the result failed to be observed. In two children, one with chronic osteitis and the other with caries of the tibia, no heat-lowering effect took place.

Magnan (Archives de Physiologie, 1873, Nos. 2 and 3) gives the results of his experiments upon alcohol and absinth, as follows:—

The immediate effect of alcohol, in a sufficient dose, is, in every animal, drunkenness.

The prolonged use of alcohol provokes, in the dog, beside the drunkenness which follows the administration of each successive dose of the poison, phenomena progressively more marked, which exhibit us the gradual evolution of alcoholism; from the fifth day of the intoxication, irritability and sensitiveness are observed; ten days after, illusions and hallucinations in the night; at the end of a month, delirium night and day.

The prolonged use of alcohol gives rise, in the second month, to trembling, which shows itself first in the hind feet, then attacks the fore feet, and extends progressively to all parts of the body. In no case is an epileptic attack provoked. Finally, the digestive troubles and various complications recall the conditions causing death in men suffering from the chronic effects of alcohol. The anatomical lesions of alcoholism in the dog show in different degrees: 1st, steatosis (liver, kidneys, heart); 2d, tendency to chronic irritations (meninges, spinal cord, pericardium).
Essence of absinth, in small dose, determines dizziness and muscular jerking in the anterior parts of the body; in the large dose, it causes epileptic attacks and delirium.

To the first stage of the attack of absinthism (tonic convulsions) correspond dilatation of the pupils, injection of the papilla and fundus oculi and congestion of the encephalon; phenomena which do not agree with the generally accepted theories as to the mechanism of epilepsy.

Animals deprived of their cerebral lobes present, under the influence of essence of absinth, epileptic attacks and jerking similar to the convulsive phenomena in those animals which have undergone no mutilations.

After the section of the cord below the medulla oblongata, the intravenous injection of the essence of absinth provokes, first, a bulbar attack (tonic and clonic convulsions of the head with foaming at the mouth), and then a spinal attack (tonic and clonic convulsions of the trunk with expulsion of urine and fecal matter).

The isolated action of each segment of the spinal axis, in the regions which it supplies with nerves, accounts for the necessary influence of the whole of the organ in the production of the complete attack of epilepsy; and, on the other hand, taking into the account the sudden and immediate loss of consciousness, one must necessarily admit the direct intervention of the whole cerebro-spinal axis in the production of the epileptic attack.

Quinia.

Binz (Archiv. für experimentelle Pathologie und Pharmakologie. Bd. I. p. 18) gives, in moro or less detail, the results of experiments made by some of his students and by himself in continuation of the researches so well-known in connection with his name. These relate chiefly to the premortal (that occurring between the emission from the artery and complete coagulation) and postmortal formation of acid in the blood, which gradually tends to neutralize its normal alkaline reaction. Of course the less acid formed by decomposition, the more will be required to bring it to a neutral condition, when the degree of alkalinity is to be measured by the gradual addition of dilute acid of known strength. It has been found that, when quinia is added to the blood, this decomposition takes place much less rapidly, and that the quinimized blood retained, after digestion in open vessels, its alkaline reaction, while that without addition, undergoing the usual changes, required much less acid for its neutralization than if its capacity had been measured when fresh.

Sulphate of bebirin and picrate of soda acted almost as powerfully as quinia, while cinchonia seemed to have but little power.

Further experiments showed the retardation caused by quinia in the formation of isatin from indigo in the presence of blood and turpentine. Chloride of sodium, chloride of calcium, and sulphate of atropia, had no influence upon this reaction; strychnia, a little; hydrochlorate of morphia showed itself about equally active with quinia, while quinia was even surpassed by slightly basic hydrochlorate of cinchonia. Binz thinks this last result somewhat remarkable in connection with the facts determined by Johansson (Inaug. Diss., Dorpat, 1870) that cinchonia is not inferior to quinia in its power of reducing
the bodily temperature, and surpasses it in reducing the amount of urea excreted. The action of quinia, in these last experiments, is exerted upon the oxygen bearing properties of the hemoglobin of the blood; since, when the experiment is repeated without blood, and the only oxidizing agent is the oxygen of the air or of the turpentine, the reaction seems to be rather favored than otherwise by the presence of the quinia. If it is true, as seems probable both from these experiments and from those of Manassein upon the change of size in the red blood-corpuscles under the influence of fever, of cold, of quinia, alcohol and prussic acid, that quinia diminished the power of these corpuscles to give off oxygen, then we have another way in which this alkaloid may be supposed to check the activity of the inflammatory process.

Binz has convinced himself that, in the well-known experiment of Cohnheim, the explanations often given thereof, viz., change in pressure and friction, are inadequate, and that a supply of oxygen to the white corpuscles sticking to the walls of the vessels, from the red corpuscles floating by them, is an essential part of the process.

No emigration takes place when no red corpuscles are present. Under these circumstances, the negative results of Balogh were obtained.

Consequently, we have in quinia an agent which opposes suppuration, both by directly diminishing the activity of the white corpuscles, as can be seen under the microscope upon a warmed object glass, and by cutting off their supply of oxygen.

M. Bochefontaine (Archives de Physiologie, July, 1873, p. 389) has repeated some of the experiments of Binz, upon the effect of quinia, in killing the minute organisms accompanying putrefaction. Although evidently wishing to oppose the conclusions of Binz, his results are by no means diametrically opposed thereto. He says: "The neutral hydrochlorate of quinia, in a solution of one per cent., acts energetically on the vibrianians of putrid blood, but less energetically than Binz thinks, who attributes to a solution of this salt, of \( \frac{1}{10} \), the property of instantaneously killing all the vibrianians. We see, on the contrary, that our more concentrated solution does not act, immediately at least, on the bacterias which usually resist energetic agents. The resistance is not long in this case; yet, in three days, one finds again some active granulations in the mixture of \( \frac{1}{10} \)."

If M. Bochefontaine reads more carefully either Binz's work or the notice of it, from which he took his information (Archives de Physiologie, 1863, p. 747), he will see that Binz does not make the statement attributed to him, but says the solution mentioned kills, at once, the larger infusoria present in putrefying solution (Paramecium and Colpoda), agreeing indeed with a later statement of Bochefontaine, viz., that the monads, paranecia and colpodæ, die before the vibrios.

He finds, without however using the very dilute solutions of Binz, that the vibrios are after a time killed, and, in describing the organisms still found in movement after the action of quinia, expressly states that they were granulations or very short "batonnets," and that their movements are chiefly of gyration and not translation. "The long and short vibrios of putrid blood, endowed with extended movements more or less rapid, have completely disappeared."

In one experiment, however, where a putrid solution contained \( \frac{1}{10} \) of neutral hydrochlorate of quinia, he says that some of the vibrios
have movements of displacement sufficiently lively and extensive. M. Bochefontaine attributes to M. Binz a much firmer belief in the origin of intermittent fever from palmellæ in the blood (according to Dr. Salisbury), than the compiler is able to discover in his writings.

Iron.

The Medical Times and Gazette, June 7, 1873, gives quite a full abstract of an article by Boussingault. in the Annales de Chimie et de Physique of Dec. 1872, containing a large number of determinations of the amount of iron in the blood and flesh of various animals, and in many articles of food. No new conclusions are drawn, but the article is a valuable one for reference.

(To be concluded.)

Rupture of the Jejunum, from a Fall, in a Girl Eleven Years of Age. By E. Holland, M.D. Lond.—H. P., described as a delicate, lively, and "fly-away" child, fell, at 4 p.m., and struck the umbilical region forcibly against the edge of the stairs. She uttered a sharp cry, got up, walked upstairs alone, vomited the contents of the stomach untinted with blood, complained that she could not draw her breath, and lay down and slept for half-an-hour. On awaking, she got up, walked about, talked freely, and, though seeming faint, made no complaint of pain. At 9 p.m., she went to bed, without supper, and slept soundly till 4 a.m., when she awoke and asked for water. Afterwards, she slept till 6 a.m., when she awoke and again asked for water. At 8 a.m. she walked in her nightdress to an adjoining room, and, without complaint of pain, asked for water and ice. At 12, she walked alone down stairs and lay down on some chairs, and, complaining a little of pain, had some hot flannels applied, but requested them to be removed on account of the "weight." At 4 p.m., for the first time, she asked for something to eat, and, after taking a few mouthfuls of an egg pudding, she vomited, fell back pale, and died without movement.

At the necropsy, thirty-six hours after death, the abdomen was found to be distended with flatus and fluid, and the umbilical region discolored by bruising. The peritoneal cavity was filled with a seroflaky fluid, deeply tinted with bile. The peritoneum generally was minutely injected, and more or less universally covered with soft lymph. The jejunum was ruptured for nearly half of its circumference, twelve inches from the pylorus, and presented a bruised appearance on each side of the rupture. On cutting open the gut, it was found healthy, and its mucous membrane upraised by extravasated blood in the neighborhood of the rupture. There were no adhesions externally around the rupture, no thickening of the edges, and the latter dovetailed when laid side by side.

Comments.—The interesting features of this case are—first, the slight cause, which can only have its results explained in the delicacy of the fibre resulting from youth, and a state of health below par; secondly, the apparent absence of any severe suffering or shock, so that the friends did not consider her ill enough to require medical attendance until the fatal syncope set in, twenty-four hours after the injury; thirdly, the sudden termination, with vomiting, after taking food.—British Medical Journal.
On Marienbad Spa and The Diseases Curable by its Waters and Baths.

If Marienbad possesses a tithe, only, of the beauties and attractions attributed to it by the enthusiastic author of this interesting and carefully prepared volume, it must be a welcome and delightful resort for the invalid, and for the pleasure-seeking tourist. As a rare and rich wine has an added zest, and a fuller bouquet, when quaffed from a delicate and ornamented glass, so must the health-giving waters of Marienbad Spa acquire more potency and be more acceptable when imbibed in the midst of such delicious surroundings. As Sparkling Burgundy, or Veuve Clicquot Champagne, from an earthen cup, so would be the waters of Marienbad from an equally uninviting chalice! Does any doubt of this enter the minds of our readers? A little of the author's description is sure to dispel it. Listen!

"Nestling in a lovely balsamic ravine, 1912 feet above the level of the North Sea or German Ocean, overtopped by mountains capped with beautiful pine-forests, lies Marienbad, in the district of Eger, in the kingdom of Bohemia, which belongs to Austria, twenty-four German miles from Prague (1 mile German = 4 1/2 miles English), five German miles from Eger, Frazensbad, and Karlsbad, and at a distance of ten German miles from Pilsen, Hof, and Plauen.

"Mountains covered with dark evergreen forests surround Marienbad on all sides but the south. Magnificent parks, delightful pleasure walks and drives, are interspersed among the gentle slopes and hills. It is the soft mellow character of the scenery, rather than its grandeur, which refreshes and cheers the impressionable and feeling heart. There is a beautiful contrast between the stern dark summits and the lively green plain, through which, from the very foot of the ravine, small rivulets gurgle along, like the Steinhaubach, Schneidbach, and Hamelicabach, all paying tribute to the waters of the Auschwitzerbach. The well-tended flower-beds, rich in color and fragrance, the neat snow-white cottages, harmoniously combine to form a landscape so overpowering with charms, that whoever is enticed within its bewitching circle is thrown into a blissful ecstasy, which banishes for the time all his bodily and mental ailments and troubles;—the first step to a lasting recovery. Whoever sees it for the first time, will exclaim, as others have done before, 'Oh, what a delightful situation! how charming! It is more lovely than any other spa I have ever seen,' &c."

The book is divided into short chapters, and appropriately opens—as we have seen—with an account of the situation and peculiarities of the country where the spa is found. The climate—said to be "that of Central Germany"—is, from the description, all that could be desired. The high elevation of the land removes relaxing qualities from the air in summer, and ozone is abundant. Pine forests offer their "balsamic" additions. "The health of the inhabitants is excellent throughout.
Epidemics never approach, and cases of severe or dangerous illness usually terminate favorably." Physicians cannot expect to thrive in such a locality. It is therefore supposable, that, except for giving advice as to taking the waters, their presence is unknown or barely tolerated, for, "no inhabitant has ever yet been attacked by cholera, and altogether the climate appears singularly suited for curing local complaints, poverty of blood, and nervous diseases; in all which the so-called air-cure produces the most surprising effects, so that mere residence and open-air exercise in Marienbad and its environs is often a sufficient remedy." (p. 3.) In view of these assertions, so constantly predicated of many watering-places, and, doubtless, in the majority of cases, with much truth, we question whether, in justice to ourselves, and in view of the necessity of earning our daily bread, we ought, as we nearly always do, unconditionally to recommend them!

The account of the various pleasant "Excursions" in the Environs of Marienbad, is certainly very tempting; and no less so, it may be, is the naïve assurance to the visitor—"Everywhere coffee!" Here, we suppose, is where the physician's authority may come in, and, although coffee may be everywhere, it may not be for everybody. The volume is a veritable guide-book in the matter of these excursions, and proceeds from the nearer to the farther. Under the head of Distant Excursions, a detailed account is given of "Koenigswart and its Castle," really very interesting. Some strange and valuable relics are enumerated: "Mary Stuart's hair; the comb of Marie Thérèse; and what is of present interest—in view of the invasion of Spain by their whilome wearer—Don Carlos's baby-clothes" (if, as we suppose, this is the active Don Carlos of to-day), out of which he seems very decidedly to have escaped!

Next comes a chapter on "Hygiene, Diet, and Regimen," headed by the motto "Health is seldom valued until it begins to fail, and then only by reason of absolute necessity"—words worth pondering well, and suggestive of many lessons. We have carefully examined this chapter, and can only say that it is excellent throughout, and may be read to great advantage by all who value their health and comfort, whether they go to Marienbad, or any other spa, or not. Certain hints are so apropos that we are constrained to specify them by a few extracts. "Another grave mistake is to suppose that concentrated food, or a particular kind of food highly concentrated, is turned to better account by a debilitated stomach than moderately nutritious food." * * While recommending water as the "best beverage for the maintenance of health," the author very wisely animadverts upon its abuse—and his advice may be advantageously followed everywhere in our own land—in countless cases, often with the result of annihilating dyspeptic troubles, as we can testify from personal observation. "The indiscriminate use of water, as sometimes practised by persons at hydropathic establishments, is to be deprecated * * *" "A general rule in respect to water-drinking may be laid down. Do not drink water with or just before your dinner, nor for an hour after, lest the digestive process be retarded." (p. 36.) An excellent "rule," and one we have long been in the habit of "laying down," especially for the dyspeptic; and more commonly extending the "one hour" to two.

It would be far better for the community, if the everlasting pitcher of iced-water were removed from many tables where it tempts only to
betray. Hotels, boarding-houses, private houses, offices, steamboats, railway cars, and every other place possible for its dispensation, offer the delicious but too often injurious draught. But, here as in regard to watering places in general, we must not say too much, lest our "occupation" suffer, more or less!

As we go on with this same admirable chapter, we have a full and highly interesting account of the famous "mud baths" of which so much has often been said. Other forms of bathing are also described. The Bottling and Exportation of the Waters next engages the author's attention, and very minute details thereof are furnished. The two principal springs whence water is exported, are the Kreuzbrunnen and the Ferdinandsbrunnen. Careful chemical analyses are given; and a most entertaining description of the earlier use of the waters by Dr. Nehr, who wrote the first practical work on Marienbad's natural "springs," forms a part of this chapter. The volume appeared in 1813, and its author died in 1820.

After an elaborate exposé of the "Physiological Effects of the Mineral Waters," the author enumerates certain contra-indications for the use of the waters. This is an honest and judicious provision, especially in view of the very lengthy list of ailments, afterwards enumerated, in which "good results" are claimed for the waters of the Marienbad Spa. It would lengthen this article beyond admissible or endurable limits, to mention, even, all the fleshly ills pronounced by Dr. Jagielski to be more or less amenable to these wondrous waters. We do not venture to sit in judgment, but if there must be a little of the cum grano salis with which to take these statements, every one must admit the thoroughness with which the author has executed his task—doubtless to him a pleasing one—and we may truly say likely to furnish a very useful guide to all who visit the localities he so pleasantly and learnedly discourses upon. Some of our confrères will, perhaps, with us, read with a degree of inward questioning, that, by the use of the Marienbad waters, "a very large fatty liver" may be reduced "to its normal volume and state." (p. 113.) The writer refers, he says, to the "fatty infiltration" of Frerichs. Niemeyer, however, is quoted, as testifying to the diminution of fat under the use of the Marienbad and Karlsbad waters; and this is cited, by our author, under the head of "Fatty Heart." He goes on to say, in this connection—"The fact is, that the difficulty of breathing disappears when the weight of such persons has decreased, the heart-sounds become clearer, the pulse fuller and more frequent, and the general condition of the patient more satisfactory." (p. 126.) Very gratifying, certainly; but, of course, temporary amendment and cure are two distinct things.

We must commend these points, and all the extended medical discussions—or presentations, rather—to the careful consideration of our medical brethren; and we do not doubt but that the invalid and the traveller will both derive advantage and pleasure from the perusal of the work. They can entrust the graver topics to their professional advisers, and appropriate the rest to themselves. The book is admirably printed; as yet, we have remarked but one typographical error. Its size and compactness make it a fit pocket-companion, and for frontispiece it has a well-executed plan of Marienbad—Situationssplan von Marienbad; which see, and, with us, "accept the situation."

W. W. M.
The great success attending the introduction of Hospital Sunday in London, this summer, has placed this charity upon such a solid footing, that it is likely soon to be adopted by those cities of Great Britain that have hitherto held aloof from the movement, and to become, ere long, a well-established English institution. It was first started in Birmingham, in 1859, for the purpose of relieving the general hospital of that city from debt, and about £5,000 were collected, and the city has averaged since about £4,000 per annum. Manchester followed her example in 1870, collecting about the same sum. Liverpool came next, and the movement then extended rapidly to a number of other smaller towns. The medical charities of each town, sometimes to the number of twelve or more, share in the distribution of the profits. The movement appears chiefly to be in the hands of the clergy, and almost every religion and creed are represented. Every means is taken to render the collection a large one; circulars are distributed freely for some time before the day on which the collection is to be made, both among the members of the various churches and in all places of business. The sermons are carefully prepared beforehand, and each minister does his utmost to make the contribution of his church compare favorably with those of others.

It was not until this year that the movement extended to London, and the preparations made to insure its success were attended with the most gratifying results. The large sum of £27,403 was realized. All classes participated in the undertaking; the Prince of Wales attended service at St. Paul's in honor of the occasion. The difficulties in the way of the distribution of this money, in such an immense city as London, were very great. Sixty-four hospitals were to be provided for, to say nothing of many dispensaries and other charities.

A number of these larger hospitals, which are well endowed, received a considerable sum, while that awarded to many of the smaller institutions was quite paltry, and, although the committee of distribution had given a great deal of anxious care to the subject, not a little dissatisfaction was manifested. In other cities, however, we hear of no such complaints. In endeavoring to introduce such a desirable form of charity as this, the following points are stated by the British Medical Journal as being necessary for success: "1. To obtain the concurrent action of the clergy and ministers of all denominations, who, as they have done in other towns, must, no doubt, make great
sacrifices, and must put aside all their jealousies and differences of religion for this object; 2. To obtain the aid of the press; 3. To form a simultaneously acting, simple and effective organization, with the one idea of determination to succeed." With such encouragement for success, we commend Hospital Sunday to the physicians and clergy of Boston. The well-known liberality of our citizens and the size of the city both favor such a movement. Our medical charities would thus be brought into a more prominent light before the community, and an opportunity be offered to the large class of people who avail themselves of them, to contribute, in some measure, to their support.

A COMMUNICATION in another column gives the liquor law from a prohibitionist's point of view. We cannot see that he advances anything new or likely to convince those who believe that the vice of drunkenness in our state may be diminished by other means than the arbitrary ones to which we are at present obliged to submit. He cites authorities to show that the abuse of alcoholic stimulants is an evil which it is highly desirable to remedy, with which, of course, we agree. We look in vain, however, for any suggestions as to how this is to be accomplished by legislation. Any measures, legislative or otherwise, which would make the keeping of that abominable American institution, the "bar room," an unprofitable business, we should hail with delight. But absolutely to prohibit the sale or even the manufacture of any form of drink containing over a certain percentage of alcohol, is as arbitrary and oppressive as it is ineffectual. We might point, among other things, to the records of the criminal court or to the druggists' opium account, did we desire to produce testimony to this effect. We are inclined to the belief that the right of society would more surely be maintained and its status improved in this respect by persuasion and education, rather than by such sweeping and compulsory legislation as is urged by our "dispassionate" country practitioner.

The following notice has been sent to the physicians of Boston, and others interested:—

The ambulance of the Massachusetts General Hospital, accompanied by a Medical Officer, will be despatched to any point north of Dover and Berkeley streets, for the conveyance of cases of accident, or urgent sudden sickness, not contagious, to this Hospital, or elsewhere, upon notice from a Physician, the Police, or other responsible source, subject to the approval of the undersigned.

In cases requiring gratuitous treatment, no charge will be made.
By order of the Board of Trustees.

**Norton Folsom, M.D.,**

*Resident Physician, Mass. Gen. Hospital, Blossom St.*

*Boston, Sept. 1st, 1873.*
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We have had opportunity to inspect the vehicle provided in such liberal spirit by the Trustees of the Hospital. It is a handsome four-wheeled wagon, made by Curley, of New York, adapted from the model of the ambulances in use in that city, drawn by one horse, and with its purpose conspicuously emblazoned on its sides, to ensure consideration from other vehicles in crowded thoroughfares. It is fitted with an upholstered litter on friction rollers, and an inside seat for an attendant. Space for surgical appliances is provided beneath the driver's seat.

There seems to be no good reason why Boston should not possess an organized ambulance system like that of New York and other cities. It is to be hoped that our City Government may follow this excellent example.

The Propagation of Typhoid Fever by Milk.—It is well known in this vicinity that typhoid fever has recently prevailed, to an alarming extent, at one of the most popular summer resorts. The cause assigned has been defective drainage, and an unpardonable neglect on the part of the proprietors of the public houses to provide proper hygienic surroundings for their guests. The latest London Medical Journals report a frightful outbreak of typhoid fever in their city, which cannot be traced to direct importation nor to defective drainage; for the hygienic conditions of the households attacked were the best that could be secured. In fact, "the cause of the epidemic seemed, at first, very mysterious, but," says the London Medical Record, "a clue has been suggested which leads pretty surely through the maze. The consideration of the character of two outbreaks in his nursery, led Dr. Murchison to suspect his milk-supply as being the vehicle of the poison. Of forty-three families reported as suffering from typhoid fever, it was found that, although living in different parts of the town, forty were supplied from the same dairy, and a committee of inquirers have proceeded to the farms, whence the supply of milk is drawn, to investigate the possibilities of foreign sources of infection to the milk of these farms.

The Medical Times and Gazette, of Aug. 15, 1873, contains an article on the "Propagation of Zymotic Diseases by Milk." It quotes the opinion of various writers who have held that certain outbreaks of typhoid fever could be clearly traced to contaminated milk, and states that there is evidence that milk may be contaminated with the contagion of zymotic disease, and yet be apparently of fair quality and present the chemical characters of a normal unadulterated fluid. It is believed that not only typhoid fever but other zymotic diseases can be propagated through milk.

As to the ways in which contagion may be introduced into milk, there are two—through water and through air. "The most obvious channel of mischief is undoubtedly water, used either for purposes of adulteration or, it may be, accidentally introduced in processes of cleaning, etc. Knowing as we do how infinitesimally small is the bulk of solid contagium capable of conveying vaccinia or variola, it is impossible to deny that the most trifling accidental addition of in-
fected water may be sufficient to contaminate a considerable quantity of milk. A speck of contagious matter from a typhoid patient left in a can, by the water with which it was washed, may do all the mischief. But it would seem that even admixture of water is not necessary. In the case of the second Leeds outbreak, reported on by Dr. Robinson, the inmates of the dairy farm, whence the milk came, were the victims of typhoid fever; the water supply of the farm was remarkably pure, being obtained from a source at a higher level than the house; but the sick were in a room communicating with the diary, those who nursed them attended to the milk, the sanitary arrangements were as bad as possible, and the house, cow-house and dairy seem to have been in an atmosphere of emanations from the sick. In the case of the Penrith outbreak, three children were down with typhoid fever; their mother nursed them; she milked the cows which were kept in a byre adjoining the house; the milk was brought into the room where the children were lying sick, and there it remained until distributed to the customers, many of whom took the disease.

"Still we must acknowledge that these facts have not the precision which would warrant us in asserting that pure milk, exposed to an atmosphere of contagium, is certain to become a vehicle for its propagation. It probably is so, but absolute proof is yet wanting. The evidence in favor of the contamination of milk by water containing febrile poison is stronger, and it is supported by the known facts of the propagation of enteric fever by the water-supply. That milk will convey zymotic disease, we hold to be absolutely proved; and it is a question whether it is not one of the most certain and dangerous modes by which it may be disseminated. Itself an organic fermentable fluid, it may be that it is suited for the conveyance and spread of zymotic poison in a higher degree than either water or air."

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Report of the Committee on Diseases of the Nervous System.* Dr. Bartlett, of St. Peter, chairman of the committee on nervous diseases, after sending to the physicians of the State a circular containing the questions reported herewith, presents, as follows, his summing up of their replies:—

St. Peter, Minn., Feb. 24, 1872.

Dear Doctor:—In order to make a thorough and practical report on nervous diseases of this State, your assistance is most respectfully and earnestly solicited.

1st. What have been the prevailing forms of nervous disease in your practice?

2nd. Have these diseases differed in any manner from the same forms as experienced in other States?

3rd. Have you seen any cases of chorea? What treatment has been most successful?

4th. Has neuralgia about the face and head been a frequent complaint? and more especially among women? What treatment has been most successful?

5th. Have you seen many cases of insanity? What, in your opinion, has been the most prominent cause?

Please answer the above as fully as you are able, stating also in

* From the Transactions of the Minnesota State Medical Society, 1873.
what other State or States you have previously practised medicime, adding any suggestions that may occur to you as of interest to the committee.

1st. Neuralgia, in various forms, that may be distinguished by external, or surface pain, or pain along the nerve track and its branches, is the most common disease of the nervous system. If we speak of the diseases of the nervous system in its broadest sense, we may include almost the whole catalogue of diseases on record, as all diseases affect the nervous centres, more or less, whatever their cause or origin, and manifest themselves by reason of that system; but, for present purposes, we limit our report to such diseases as we suspect exist primarily in the brain and spinal cord, with their coverings and connections. Notwithstanding the earnest efforts of modern pathologists to solve the mysteries of these nervous complaints, it must still be confessed that they are yet involved, to a considerable extent, in obscurity, and that the treatment is largely experimental rather than philosophical. Nevertheless, progress has been made in consequence of these researches, and much suffering is now relieved by direct and simple methods of treatment. The treatment for this form of disease, viz., neuralgia, as given in these replies, is uniform, and the success generally reported as satisfactory.

2d. In answer to our second inquiry, we learn that these diseases do not differ essentially from the same forms met with in other States of a northern climate.

3d. In answer to our third, that Chorea, although occasional, cannot be considered as frequent in Minnesota.

4th. In answer to our fourth question, it is stated by all, except one or two, that the most frequent seat of neuralgic pains is about the head and face, and that women suffer more in this respect than men, though the latter are by no means exempt. No cause has been assigned for this, except in one instance, where decayed teeth were suspected. One fact concerning this climate in connection with the frequent form and seat of neuralgic pain, has not been mentioned by any respondent, but it has seemed to me of considerable importance. I allude to the prevailing strong and cold winds, which none can fail to notice as a constant cause of irritation to animal nervous systems.

It may be said, if this be so, then men should suffer more generally than women, as they are necessarily more exposed to this cause. But it may be stated, in reply, that men are better protected, both by nature and artificial means, from this exposure, and that women are frequently tempted, by short errands, to indulge in exposure in the open air directly from heated rooms, without any covering to the head, and that the face and forehead at the best, when supposed to be dressed for out-door exercise, are not allowed any covering by modern fashion. When it is possible for women to grow beards, or encase their heads and faces in homely fur-lined hoods, at every out-door exposure during cold weather, then possibly, and even probably, they will be able to bear this climate, or any climate of ice-cold winds equally as well as men.

In respect to the fifth and last question of the circular, in regard to "Insanity in this state and its causes," only observations of a few cases have been reported, and not enough to classify causes to any extent. As my own experience here has been confined almost
exclusively to cases of this description, I will briefly state, in conclusion, some of the leading facts concerning the subject, in Minnesota, at the present time.

5th. It is thought by many, who have not investigated the subject particularly, that insanity is unusually prevalent in our State; but the facts, so far as my observations extend, do not sustain that supposition. To the best of my knowledge, we have not more than five hundred insane persons in the State at the present time, which gives us one and a fraction to every one thousand inhabitants; while one to four or five hundred is the average in the older States, and where statistics have been carefully made. It is true that the number is increasing, but not, probably, out of proportion to the increase of the population. A new State should not, theoretically, have so many insane as one where chronic cases have been accumulating for several generations; and practically, I think, this is generally true; California may form an exception, as the number of insane in that comparatively young State is enormous; but the frequent and bitter disappointments, "the hopes deferred," of the seekers of sudden wealth, in connection with the exciting life led by all, both fortunate and unfortunate, may account, in some measure, for the fearful waste of mental power and integrity witnessed there.

The climate of this State, having an extensive reputation as one favorable for persons afflicted or threatened with lung diseases, tuberculous or otherwise, has attracted hither invalids with these difficulties, in large numbers, and we should naturally expect to find "ill health" arising from tuberculous disease, inherited or developed previous to a residence here, conspicuous among the causes of insanity; but the facts, so far as the histories of patients admitted to the State Hospital for the Insane inform us, do not accord with this expectation. "Ill health" is frequently assigned as a cause, but it has generally followed some acute disease, such as typhoid fever, or physical exhaustion from causes depressing to the vital forces, hard work, poor and insufficient food, uncomfortable homes, domestic troubles, conditions following the puerperal state, pecuniary anxiety, and nostalgia. The latter, obscured by other and prominent symptoms, is not assigned as a primary cause so often as close investigation would undoubtedly demonstrate it to be; the social relations holding a controlling influence on the feelings and habits of life, and the rupture of these ties by a large number of the present population of our State, must result in a severe strain on the mental forces, and especially as many of those called to endure these changes and trials have few resources within themselves, and not much of that strength that springs from a thorough cultivation of the intellectual and moral powers of the mind.

Intemperance, though a prolific source of evil of every kind and grade to those who indulge in strong drinks, and to their descendants, does not appear more fully represented by its victims, mentally disturbed, in this State, than elsewhere; and "the excessive use of tobacco" is not more frequently noted as a cause of insanity here than in the East, where it does not appear so constantly and so universally consumed by men as in the western States. Solitary vice, either as a cause or consequence of insanity, is, apparently, more general here than in the eastern States. Two reasons may be given
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for this: the difference in the number of the sexes, the males being in the excess, and the stimulating character of the climate on the passions and temperaments of men.

A comparison of the causes of death, among the insane, between this State and one of the eastern hospitals is interesting in relation to the frequency of phthisis in the two portions of our country. Of the 92 deaths that have occurred among the inmates of the State hospital since its opening, only 8 are reported as caused by phthisis; and one of this number came from Massachusetts in the last stage of the disease, became maniacal, was admitted to the hospital and died soon after. This small number of deaths seems more remarkable, when we consider the large number of invalids seeking homes in this State, on account of their pulmonary difficulties. Leaving out of our calculation the one alluded to, we have only 7 in 92, or 1 to 13; or, rejecting fractions, about 7 per cent.; while in the eastern hospital mentioned, where the record was mostly kept by my own hand and the statistics would naturally follow the same rule as to accuracy, of 359 deaths, 127 are attributed to phthisis, or more than 1 to 3, or, in other words, more than 36 per cent. of all the deaths; and this rule holds true of other institutions of the eastern States and of the Canadas. While these wide differences exist as to this disease, the numbers reported as dying of marasmas, a gradual decay of both body and mind, are almost the same in both places; and, in regard to other prominent causes of death, there is no particular distinction.

This, Mr. President and gentlemen, we beg leave, respectfully, to submit as our report.

C. K. Bartlett,
Chairman of Committee on Diseases of the Nervous System.

THE ABUSE OF CHLORAL.—The Lancet of May 3d, 1873, states that from various quarters it has received trustworthy reports which leave no doubt that this very valuable medicine is being grossly abused by the public. The public should be plainly told that chloral is no more to be administered by unskilled hands than is opium or strychnia. There are several ways in which its improper use may cause serious mischief. In the first place, a single dose may cause death by failure of the circulation, and there seems to be very great differences between persons as to the dose which can be taken without danger of this fatal catastrophe. The other possible results of chloral are chronic. Where it is taken without proper reasons, repeatedly for a considerable time, it may produce either or both of the following effects: it may seriously affect the intelligence and memory, or it may produce partial paralysis of the limbs. The latter is a fact which, though the Lancet has not seen it anywhere recorded, is, nevertheless, becoming known to observant practitioners, and will henceforward have to be reckoned as a possible consequence of the rash use of chloral. Besides all these things, chloral is fully as guilty as opium or any other recognized narcotic of the tendency to render those who take it the slaves of habit; and it is by no means certain that the moral enfeeblement which it thus induces is not even greater than that of opium-eating, unless the latter be carried to great excess.
MODIFIED LITHOTOMY STAFF.—Dr. Lewis D. Mason has invented a novel lithotomy staff, consisting in the combination of a catheter and a grooved staff in the same instrument, a description of which in words would not be of much use without the aid of wood cuts. The advantages claimed for this double instrument are the following:—

"Having the solidity of a sound, combined with all the advantages which a catheter possesses, an opportunity is afforded to examine or sound the bladder easily and rapidly under various conditions, viz.:

full, partially filled, or empty, without removing the sound; fluid being injected into or drawn off through the canula to fulfil either of these conditions.

"Another advantage is the triple capacity in which the instrument may be made to act, as sound, catheter and staff, without necessitating its removal from the bladder, thus saving multiplicity of instruments, abridging the period allotted the operation, avoiding additional irritation of the urethra, and preventing loss of fluid from the bladder, which not uncommonly follows withdrawal of the catheter, or occurs subsequently during the introduction of the staff.—New York Medical Journal, May, 1873.

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Correspondence.

"The Prohibitory Law in the Light of Sanitary Science."

Messrs. Editors,—Permit me to say as a long time friend and reader of the Journal, that I have occasionally noticed, of late, comments in its columns bearing on the question of temperance reform, breathing a spirit unfavorable, I fear, to the cause of humanity. Impressed with a sense of high respect for its eminent editors and contributors, I have not felt it my duty to speak until I read the editorial of Aug. 28th, entitled "The Prohibitory Law in the Light of Sanitary Science," when not only a sense of duty, but also of self-respect and professional reputation forbid my longer remaining silent.

In the article referred to, after expressing a "strong feeling of indignation" at the recent liquor seizures by the State Constabulary, you say, "It is a well-known fact that the best medical authority is in favor of the introduction of cheap, light wines and the use of beer as the best means we have at our command to diminish drunkenness. Testimony has not been wanting in quantity or quality, and, in the face of it all, we are actually subjected to these daily outrages by a miserable set of pie and bean fed politicians, who do not appear to be acquainted with even the most common rules of health. The wretched physique of the poorer class of Americans in the country, is evidence enough of this deplorable state of ignorance." Further on, you blame "country practitioners for this state of affairs," and say, "every good physician ought to feel, in part at least, responsible for, and ashamed of the liquor law." Now supposing it were a well-known fact that the best medical authority is in favor of the general use of wine and beer as the best available means of diminishing drunkenness, should the conscientious and intelligent masses of a free and civilized community, constituting an independent state, be abused for not discontinuing at once, on the mere ipse dicit of medical authority, a course of reformatory measures which appear to them rational and effectual, especially when the alternative proposed by medical authority appears to most minds absurd, and contrary to general experience? But it is not a well-known fact, I think, that the best medical authority is in favor of the use of wine and beer as above stated. Nor, indeed, is it a fact at all, so far as I know, unless reference be had simply to
the position taken by Dr. Bowditch in his late inquiry regarding “Intemperance in New England,” for I think now of no other eminent medical man or men who has recently published similar views. And of Dr. Bowditch’s fifteen propositions for treating intemperance in New England, I think prohibitionists object to only the fifth, sixth, and ninth, while they heartily endorse those in relation to the vending and drinking of alcoholic spirits, as thoroughly prohibitory. His fifth proposition reads as follows: “In Europe, and in other grape-growing areas of the earth, mild wines are used from babyhood to old age, and they do not seem to produce a nation of drunkards.” Sixth. “Similar remarks may be made on lager beer and its effects.” Much might be said, if space permitted, in disproof of these propositions, but perhaps a few statements recently published by French physicians will be most in point. “A very interesting work, Le Statistique de l’Alcoolisme, by Dr. Decaisne,” says The Boston Journal of Chemistry for August, “has just appeared in Paris.” “The author considers that the abuse of alcoholic drinks has become, in France, a social question of the highest importance and a source of public danger.” According to statistics given, its use, per head of the population, has more than doubled within forty years. “Not only has the consumption of spirits increased through France, but alcoholic drinks have displaced, to a considerable extent, the use of wines and cider in the districts where vineyards and apples most abound, and every where the increase of insanity, suicide, vice and crime has been in proportion to that of intoxicating drinks.” &c. Also, in point, a case recently reported by M. Vernay in The Lyon Medical, and re-published in The Medical News and Library of June, 1873, where an infant rather mysteriously suffered from convulsions, until it was found that “the nurse took six or eight glasses of French wine daily, and some more at night.” When the wine was discontinued, the convulsions ceased, &c.

And, further, as the JOURNAL seems to reverence medical authority, let us briefly present the authority of English and New York physicians on certain points, in excuse for the asserted stupidity of “pie and bean fed” prohibitionists, and “our country practitioners,” and, also for “the wretched physique of the poorer classes of Americans in the country.” The New York physicians, Delafieild, Parker, Clark, Peaslee, Agnew, &c., recently signed a declaration stating, among other things, that, in view of the alarming prevalence and ill effects of intemperance, “We should welcome any judicious and effective legislation, state and national, which should seek to confine the traffic in alcohol to the legitimate purposes of medical and other science, art, and mechanism.”

Dr. Carpenter gives the names of many of the most noted English physicians, and says over two thousand have signed a certificate containing, among others, the following declaration. 2. “That the most perfect health is compatible with total abstinence from all intoxicating beverages, whether in the form of ardent spirits, or as wine, beer, porter, cider, &c. &c."

Now, had the JOURNAL dispassionately reflected on the situation, on the rights of society to maintain and improve its status, by all legal and constitutional means, closing the avenues to disease, vice and crime, so far as may be without detriment to the legitimate interests and rights of individuals, would it not have spoken more respectfully of the aims and efforts of a majority of the citizens of an ancient and most respectable Commonwealth, sincerely seeking to diminish or abolish the greatest evil and tyranny that individuals of a “free and civilized community” can be subjected to, “a species of tyranny” more galling and destructive to the welfare of humanity than all the enactments of man towards man, since the world began.—The Tyranny of Alcohol!

COUNTRY PRACTITIONER.

DOWN EAST, Sept. 7th, 1873.

MESSRS. EDITORS.—Among your notes and queries in the JOURNAL of Aug. 28th, is one addressed to us country fellows concerning splints, “when
the classical splints are not at hand." For my own part, not being a man of much ingenuity, I can't possibly invent a splint. There isn't room enough in my baggage to carry them with me, and I have often been obliged to let patients get well without them. I remember that my old master used to tell us, that Mr. Cooper (Sir Astley, he meant) said, that "if he should have a fracture of the cervix femoris, he would have his leg put on a pillow, in the most comfortable position possible, and, after the lapse of a few weeks, would get up, and go about, as well as he could with a crutch." Now, I have used Mr. Cooper's treatment, as laid down in his writings, and I have used the treatment spoken of by him; and the patients treated in the latter style always got on the best.

The success in these cases was so good, that I have tried it with other fractures of the lower extremity, and with equal success. I remember that Dr. George Hayward used to show us how to tire out refractory muscles by a weight tied to the foot, and this we country doctors, without ingenuity, do to help our patients along.

Some of us, who read the JOURNAL, though we cannot point to the place, where it is spoken of, remember, that some one advised clean straw for splints, and we can almost always find that. Last week, I sent up to Boston for a few bottles of wine, to J. D. & M. Williams's, and when it came every bottle was put up in straw splints. Just the thing for a broken humerus. I thought then, that their bottle packer ought to be in one of the hospitals. The great advantage of straw is its lightness and cleanliness. Then again, a good pillow makes a good splint for a lower extremity, if it is well tied about the part. One great advantage it has is, that you can't tie it so tight as to impede the circulation.

About in this part of the country, people expect to be hurt in having their bones set, and they express great surprise that the slight pull we give them is sufficient, and relieves pain: and they seem just as well satisfied with a pillow, a small bolster, or a few ounces of straw, as they would with a Baker's harness, or a cord of wood fastened to them.

When I began practice, folks used to dread the time "when the bones will begin to knit, because it will hurt then, if it don't before." Somehow, it seems, with pillows and straw and bolsters, as if knitting was an agreeable pastime with bones. It don't hurt at all.

The longer I practise, the less machinery I want, and the less medicine I can get along with. I was somewhat disturbed a little while ago, when a doctor from a neighboring town said to me, "you fellows that have patients, who get along without medicine and splints, and don't believe in dosing, as you say, had better keep your opinions to yourselves, and not spoil our business."

If you think, therefore, "respublica detrimentum caperet" by anything I have written, why don't print it.

Yours,

RUSTICUS.

MESSRS. EDITORS,—In the JOURNAL of Aug. 28th, a description of improved apparatus for common fractures is asked for. Now it seems to me that usually but little apparatus is required, and that thin, smooth board, tin angular splints, hoop-iron, pasteboard, a pulley, adhesive plaster and plaster of Paris are a tolerably complete equipment. The board will supply straight and coaptation splints; pasteboard or felt can be moulded to any desired shape, and strengthened by hoop-iron, or by gluing together several thicknesses. A pulley, inserted into an upright fastened to the bed, provides for extension, a beam under the legs for counter-extension, and bricks or flatiron make handy weights. Any box is potentially a fracture box, and plaster of Paris is almost everywhere admissible. These so well take the place of "classical splints," that any ingenious apparatus hitherto undescribed will be as valuable an addition to a splint-room as it will be to the resources of a country practitioner.

C. A. LOVEJOY, M.D.

Lynn, Aug. 30th, 1873.
Medical Miscellany.

Dr. David P. Smith, of Springfield, has been appointed Professor of the Theory and Practice of Medicine, at Yale Medical School.

We regret to hear that M. Littré, the celebrated French lexicographer, who has just completed his Dictionary of Medicine, Surgery, and the Allied Sciences, is suffering from a malady which it is feared will shortly prove fatal.

Adhesive Plaster.—According to Otto Facilides, adhesive plaster, which has become brittle by age, and has lost its adhesive qualities, may be rendered adhesive again by coating it with oil of turpentine, by means of a sponge, and leaving it exposed for a day.—Am. Practitioner.

Subcutaneous Injections.—Dr. Constantin Paul recommends glycerine as a solvent for subcutaneous injections. He considers it to be far superior to water, alcohol, etc.; it is neutral, can be kept easily, and is, of all liquids, the one which approaches the nearest to the composition of subcutaneous cellular tissue.—Lancet, Aug. 2, 1873.

Means of Diagnosticating Lipomata.—A character peculiar to lipomata resides in the property belonging to all fatty tumors of hardening under the action of cold. When, after the use of ice or the ether spray, in the case of a doubtful tumor, the growth is felt to become harder, the presumption is that the case is one of lipoma.—Rev. Méd. Phot. des Hôpitaux.

We are in receipt of the sixty-first Annual Announcement of the Medical Institution of Yale College. We notice that, in the spring term, the students are classified according to their time of study, and the three classes have appropriate work in the form of recitations and lectures, laid out for them. The vacancy made by the resignation of Prof. Ives, has been filled by the appointment of Dr. D. P. Smith.

Beware of Office Thieves.—A gang of these gentry have been "operating" quite extensively during the present month, in the offices of many physicians in this city. The man who calls asks for the doctor, waits a few minutes and then makes off with whatever he can lay his hands upon. In the description given, we find that loose, dark clothes and long, black hair figure conspicuously.

It will be remembered that the veteran English physician, Sir Henry Holland, closed his delightful volume of "Recollections" last year with observing that the foreign journeys which he had been in the habit of taking annually for fifty years were probably at an end, and that "in future" (he was 85 as he wrote) he should restrict himself to a narrower circle. He has changed his mind, however. The gallant doctor has just left London on his ordinary two months' tour, for a place as distant from his home as Novgorod, where he trusts to see for himself a fair, of which every one who knows anything of Russia has heard.

Dr. Joseph Bell of Edinburgh, in a paper on surgical cases in relation to temperature, lays down the following axioms:
1. Suppuration, even very profuse, does not necessarily imply any great rise in temperature, so long as it is not putrid.
2. Fever or putrefaction of suppuration always induces a rise in temperature.
3. A high temperature, lasting for more than three or four days after the injury or operation, indicates mischief impending, such as sloughing or abscess.
4. The temperature generally gives warning a day, or even two days, before the pulse.
The cholera is now worse at Berlin than at Vienna. The overcrowding of the North German city has re-inforced the epidemic most effectively. In the Friedrichstrasse, the 2nd Grenadier Regiment of the Guards, after losing from twenty to thirty men in each company, had to be removed to the interior.

**Medical and Surgical History of the War of the Rebellion.**

It is stated, that in many parts of the country, persons anxious to consult this valuable government document, are unable to obtain access to it, and that even a copy is not to be found in many of the public libraries. This statement may seem inexplicable when it is remembered that Congress voted 3000 copies of the work, of the 5000 printed, for the use of its members; but an explanation satisfactory to many will be found in the fact, that, in Washington, copies are exposed for sale at prices scarcely more than nominal, and that the trade there is overstocked, and a market for the work has to be sought elsewhere.

How it happened that these copies, which are said to have cost the government $1.25 apiece, were not distributed among the people, as was intended, but got into the hands of Washington book-dealers, and how they are able to offer them for sale at prices vastly below the original cost, may, perhaps, be explained by honorable members of Congress.—*The Medical News and Library.*

In the Italian section of the Vienna Exhibition, Dr. Marini exhibits, among an assortment of human feet, hands, legs, arms, and busts of shrivelled proportions and deep brown color, a large, round plateau, evidently of hard and polished material, which has been likened to stale gelatine or potted boar's head. It is a conglomerate of specimens illustrative of an art invented by him—the petrification and mummification of human corpses. It was this very Dr. Marini who petrified Mazzini, and executed his work so well that the admirers of the arch-conspirator proposed to set up the corpse on the capitol and save Italy the expense of a statue. The preparations are weather-proof and will take on high degrees of polish. His mummified specimens, by a process known to him alone, can be restored to their original size and elasticity; while the petrified ones are as hard and possibly as durable as granite. The top slab of the table is composed of muscles, fat, sinews, and glandular substance, all petrified together in a block, the surface of which has been planed and polished until its face resembles marble. Certificates from Nela ton and other distinguished surgeons are attached to the specimen limbs, setting forth that the limbs in question had, for the satisfaction of the certifiers, been restored to their pristine softness and pliancy by Dr. Marini.—*Lowell.*

**Mortality in Massachusetts.**—*Deaths in seventeen Cities and Towns for the week ending September 6, 1873.*


**Prevalent Diseases.**—Cholera infantum, 86—consumption, 50—diabetes and diarrhoea. 25—scarlet fever, 21—pneumonia, 16—typhoid fever, 15.

Two deaths from small-pox occurred in Holyoke.

**George Derby, M.D.,**

Secretary of the State Board of Health.

**Deaths in Boston for the week ending Saturday, Sept. 13th, 148. Males, 84; females, 64.**

Accidental, 2—abcess, 1—immunization of the bowels, 1—disease of the bowels, 1—bronchitis, 1—inflammation of the brain, 1—congestion of the brain, 1—disease of the brain, 3—cerebro-spinal meningitis, 1—cholera infantum, 35—cholera morbus, 2—consumption, 20—convulsions, 2—dysentery, 4—diabetes, 2—dropsy, 1—dropsy of the brain, 3—drowned, 1—dysentery, 3—diabetes, 1—epilepsy, 2—scarlet fever, 11—typhoid fever, 6—disease of the heart, 5—intemperance, 1—disease of the kidneys, 2—disease of the liver, 4—congestion of lungs, 1—immunization of the lungs, 3—marasmus, 7—paralysis, 3—premature birth, 5—peritonitis, 1—purpura haemorrhagica, 1—stricture of the colon, 1—suicide, 1—tuberculosis, 1—tumor, 1—tubes mesenterica, 1—unknown, 1.

Under 5 years of age, 82—between 5 and 20 years, 25—between 20 and 40 years, 25—between 40 and 60 years, 25—over 60 years, 1. Born in the United States, 113—Ireland, 19—other places, 16.
A BRIEF SKETCH OF THE METHODS OF REMOVING GROWTHS FROM THE LARYNX WITH THE AID OF THE LARYNGOSCOPE; WITH A CASE, IN WHICH A FIBROCELLULAR GROWTH WAS REMOVED FROM THE RIGHT VOCAL CORD.

Read at the Meeting of the Massachusetts Medical Society, June 3d, 1873.

By F. I. Knight, M.D.

We find, scattered here and there in the medical literature of the hundred years previous to 1859, records of between sixty and seventy cases of laryngeal growths, most of which were discovered after death. In only nine of these cases, was an attempt made to remove the growth during life, "and one of these," as Mackenzie says, "is so vague that it must necessarily be excluded."* In four of the remaining cases, viz., those of Regnoli (of Pisa), Middeldorpf and the two of Horace Green, the growth was removed through the mouth.

Since Czermak’s discovery of a practicable method of performing laryngoscopy, in 1858, hundreds of cases of laryngeal growths have been observed and treated. It was the good fortune of Czermak himself to have been the first to observe a laryngeal polypus by the aid of the mirror, and Lewin seems to have been the first to have removed a growth from the larynx by the aid of the same.†

It is evident from the number of cases which have been observed since the discovery of the use of the laryngoscope, that growths occur in the larynx not infrequently, and it will naturally be asked why more were not found formerly on post-mortem examination?

Some observers still feel it hard to answer this question, while others say that in most cases the larynx was not opened at all, and in the few cases in which it was opened, small growths might easily have been overlooked; and I have recently had a case, which I shall report elsewhere in full, which seems to show that warty growths shrink up very much after death.

Czermak’s discovery created an era in the treatment of laryngeal growths, and opened a field for operative procedure, which, if indeed usually requiring much practice and a great degree of patience, is full of brilliant results.

* Growths in the Larynx, p. 3.
† On July 20th, 1860. Deutsche Klinik, 1862.
It is my intention, in the limited time allowed me, to briefly bring to the notice of the society a few of the instruments and methods of operating, which I consider to be among the best of those which I saw employed last year when visiting the various laryngoscopic clinics of Europe.

I will simply state beforehand, without stopping to argue the points involved, my opinion that no operation should be attempted on growths known to be malignant, and that thyrotomy should never be performed until it is decided that all other methods of operating are impossible.*

Fortunately for us, however, a non-malignant growth seldom occurs in the larynx, which cannot be removed through the mouth by the aid of the laryngoscope. In young children, however, it will sometimes be found impossible to remove the growths in this manner; and in these cases I agree with Dr. Oliver, of this city, in thinking it better treatment, instead of performing thyrotomy, to introduce a tracheotomy tube, when the dyspnea becomes dangerous, and then to wait till the child becomes old enough to submit to an intra-laryngeal operation, or until the growth disappears, which Dr. Oliver is convinced, from experience, may happen, when the growth is a simple, soft, papillary one. Mr. T. Holmes, in a communication in the British Medical Journal of May 10th, 1873, also speaks, with reference to such cases, in favor of performing tracheotomy, and waiting till the child is old enough to allow the growth to be removed through the mouth.

Again, if a growth is small and so situated as to produce no inconvenience, and if, after examination at repeated intervals of time, it is found not to be increasing in size, it may, as Mackenzie suggests, be left alone. This would be particularly desirable, if Gibb is correct in his opinion that the "pecking away" system is, in some constitutions, most liable to generate malignant disease from the irritation it sets up.†

The question will naturally be asked, how much can be accomplished by inhalations or by solutions applied by means of a brush or sponge, towards the removal of laryngeal growths. From inhalations, little or nothing can be expected in the treatment of primary neoplasms, the striking effects, which have been reported from their use, occurring usually in syphilitic, typhus and other secondary excrescences, which show a strong tendency to, and often do disappear of themselves.‡

A few growths have been reported to have disappeared under the use of caustic and escharotic solutions applied by means of the

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* Those who wish to investigate the merits of thyrotomy, for the removal of laryngeal growths, are referred to a very able and exhaustive paper, likely to do much for the cause of conservative surgery, by Mortell Mackenzie, in the British Medical Journal, April 26th and May 3d, 1873, in which there is a description of the results of this operation, in forty-eight cases collected by himself; 1. In relation to life. 2. In relation to respiration. 3. In relation to voice. 4. In relation to recurrence.


‡ See cases of Siegle, Inhalationen, 111. Auflage. Stuttgart, 1869, p. 172; and Fieber, Die Inhalation. Wien, 1865, p. 117.
brush or sponge, but I suspect the number of genuine neoplasms, which have so disappeared, to be very few. Those acquainted with the use of instruments for the removal of laryngeal growths, as a rule, only use caustics and escharotics as applications to the scat of a growth, the most of which has been already removed.

Of instruments employed for the removal of laryngeal growths, it was natural that the forceps should have been one of the first, and it continues to be, in one form or another, the favorite instrument. It is adapted to those cases in which the growth is attached by a small pedicle, or in which, if the attachment is large, the growth is soft enough to be broken away by pieces, or to be removed by pieces, after they have been partially cut off by the knife.

Many varieties of this instrument have, of course, been invented. Those which were formerly made and sold as laryngeal forceps, for removing foreign bodies from the valleculae at the base of the tongue and from the hyoid fossæ, were much too short to be used to advantage within the interior of the larynx. The general form and curve which I prefer for laryngeal instruments is seen in this sound. Mackenzie, in his modification of the common steel forceps, has transformed the curve into nearly a right angle, thereby trying to avoid unnecessary irritation of the epiglottis. I think, however, that as a rule one operates better with this instrument resting firmly and steadily on the epiglottis, than by trying to avoid it; in which case he is pretty likely to touch it just enough to be very irritating. This instrument of Mackenzie, one of Fauvel, which is armed with teeth for seizing the growth, and with a catch upon the handles to pre-
vent their being opened when once they have closed, and the Cuseo forceps are the principal modifications of the common steel forceps. One or more of the blades may also be made with a cutting edge.

Excellent tube forceps have been invented by Mackenzie, Bruns and others, but the instrument of this kind, which I prefer, is the Schrçtter-Türck forceps, which I have had so modified by Messrs. Codman & Shurtleff that the forceps is closed by the tube being pushed over it, as is done in Mackenzie’s and Bruns’ instruments, instead of by a withdrawal of the forceps within the tube, as was formerly the case. The reasons why I prefer this instrument are, on account of its firmness and strength, and on account of the shape of its handle, which is curved to one side, and entirely removed from the line of vision, and can be firmly grasped in the whole hand.*

Various forms of the wire-noose have been proposed, and used by different operators. These may also be used where the growth is attached by a small pedicle, or is soft; in a word, in about the same class of cases as the forceps.

One of the best instruments of this kind is that of Störek, in which the wire is guarded to prevent it from being bent during its introduction. Dr. Jelenffy, of Pesth, advocates the forcing of this instrument into the larynx at random, even on the first visit of the patient, as the polyp may, by the spasmodic action of the larynx, be forced into the noose and so extracted, and as nothing else in the larynx would be likely to be engaged in it. A regular guillotine blade also has been adapted to this and instruments, but those familiar with the use of the tonsil-guillotine will know how hard it is to engage a small growth in it. I should think that the guard over the wire-noose in Störek’s instrument would, for the same reason, render its use difficult in small growths.

Of the cutting instruments, which are necessary to aid in the removal of growths which are hard and have a broad base, I prefer the knives which are adapted to the handle of Türck, and the lancet of Dr. Mackenzie. Scissors have been generally abandoned in laryngoscopic operations.

Galvano-caustic is an agent which has been over-estimated on the one hand, and too little appreciated on the other. Its use seems indicated in certain cases of hard growth with broad attachments, at least for cauterizing the base after partial removal by other means. It may be employed either by means of a loop or a simple point. I will show the instrument of Voltolini, whose name has become famous in connection with the use of galvano-caustic.

Fieber recommends electrolysis for the treatment of laryngeal tumors, but the cases which he publishes do not afford us any very accurate ideas in regard to the effect of this agent, inasmuch as he

* I am indebted to Messrs. Codman & Shurtleff for a cut of this instrument which they now manufacture, with various extremities adapted to it, viz., forceps of various shapes and sizes, caustic holder, knives cutting in different directions, &c.
leaves us in ignorance as to the nature of the swellings which he states to have been successfully treated by it.

It may be easily conceived that the preparatory training, which is necessary to enable the patient to bear any of these instruments, may be very long or very short, but it usually requires considerable time to be able to operate with precision, leaving nothing to chance.

Also, after the patient is trained, the operation may be accomplished at once, or it may require many sittings, the growth being removed little by little.

If it is necessary at any time to expedite matters, I should not hesitate to use local anaesthesia, as practised at Schröetter's clinic in Vienna, in case the patient was in good general condition, and neither very young nor very old. This consists in the local application of chloroform and morphia to the larynx in the following manner; twelve to eighteen hours before the operation pure chloroform is applied by means of a brush every five minutes for an hour; and then every five minutes for another hour a solution of acetate of morphia (grs. vi.—5 j.); the patient being reminded not to swallow, and to gargle frequently with the following:

\[ \text{R} \]
\[ \text{Acidi tannici,} \]
\[ \text{Alcohol, } \text{āā } 5 \text{ i.;} \]
\[ \text{Aqua, } 3 \text{ vi; } \text{ft. sol.} \]

If, at the end of twelve hours, the larynx is still very sensitive, twelve more applications of the solution of morphia are to be made, as before, and so on until anaesthesia is produced. I have not had occasion to use this method here, but have seen it used in Vienna, and have myself had there the opportunity to test the sensibility of the larynx before and after its use, and there was undoubtedly very great diminution, and in one case almost total abolition of it.

I will relate to the society one case which occurred in my private practice, in which a polyp was removed from the anterior part of the right vocal cord with the aid of the laryngoscope, with the complete restoration of the voice to its normal character. A. J. B., aged forty-four, captain of a whaling ship, consulted me Dec. 12th, 1872, with reference to his voice. He had no hereditary tendency to any particular form of disease and had never had syphilis. He enjoyed robust health—with the exception of a fever when twenty-one years of age, in Brazil, with which he was very sick but from which he fully recovered—until Sept., 1871, when he had a cold in the head, followed by cough. In about ten days, there was a marked alteration in the character of the voice, which was not very rough but high in pitch. He got rid of the cold and cough in about a fortnight, his voice improved and got nearly well, but, about the first of November, he took another cold from sleeping in a damp bed and his voice grew worse constantly, till in the spring of the present year he could speak only in a whisper for three months. In August, "after taking cider vinegar, for a week," he spoke out loud,
and continued after that to speak in a peculiar, very high pitched voice (which became somewhat stronger), until the time of his visit to me. During the year in which he had suffered, he had undergone a variety of treatment, such as might be expected, before the nature of the trouble had been ascertained, which, of course, could only have been done by the aid of the laryngoscope. At the time of his first visit to me, his voice was very high pitched, squeaky, and produced with much effort, entirely unfitting him for his duties as commander of a whaler. He stated that he had had some dyspnoea for four or five years, since a shipwreck, at which time he was in the water for two hours. This, he thought, had increased a little since the present trouble. He had no cough and felt generally well. Examination of the chest showed nothing abnormal. On examination with the laryngoscope, a neoplasm, apparently about the size of a bean, was seen projecting from the upper surface and edge of the anterior part of the right vocal cord. This was grayish in color and appeared rough on its surface, more like a simple epithelial growth than anything harder.

During ordinary respiration, the anterior part of its attachment to the cord was concealed by the epiglottis. During phonation, the neoplasm was pushed hard against the opposite cord, which showed an indentation from this pressure.

These three water colors, executed from life, by Dr. Quincy, show the images of the larynx as seen in the laryngoscope during respiration and phonation, with the polyp; and during respiration, after it had been removed. I have, also, some large diagrams made by Dr. Quincy, which will show at a glance, to all in the room, these different conditions.

The inconveniences which I experienced in the way of operating in this case were, that the larynx was small, and the growth situated far forward. The patient had been exercised with the mirror and sound nearly four weeks, before I succeeded in seizing the growth with the tube forceps and in removing a piece of it. It was now evident

* The wood cuts are from the original water colors of Dr. Quincy.
that the growth was of a much firmer consistence than I had supposed, and that it could not be removed at once, as soon as I could seize it, as I had hoped, but must be removed in pieces; for, seizing the whole of it in the forceps, and exercising all the force that I dared to, it could not be detached entire from the cord.

The larynx was quite intolerant of most other instruments besides the tube forceps, and the complete removal of the growth in pieces was chiefly effected by means of this instrument, aided by one or two incisions from Mackenzie's laryngeal lancet, and the crushing forceps which I had made for the case. I saw the patient nearly every day, but often could not work upon the growth on account of irritability of the throat, increased at times by bronchitis, until the last four days, when it became quite tolerant of the instruments. The operations were concluded during the first week in March, and after the inflammation, due to the operation, had subsided, the voice was restored to its normal character.

The picture by Dr. Quincy, made after the operations had been completed, shows how completely the removal was effected, only a little cicatrix being visible in the position which had been occupied by the growth.

I did not use galvano-caustic in this case, because I had not had much experience with it, and the larynx being small and the growth being situated so far forward, I was afraid of impairing the sound tissue.

Dr. J. C. Warren made the following report on a piece of the growth which I gave him for microscopic examination. "The growth consisted of young connective-tissue cells, which were quite numerous, and were supported in a delicate fibrous intercellular substance. The surface, which on section showed a somewhat irregular outline, was covered with a thick layer of epithelium."

This case was not one of those which afford a chance for a brilliant operation, as, e.g., a pediculated polyp offers, which can be removed at once, as soon as we can take hold of it; but yet was one of those which tax our patience and our skill to a far greater degree, and the results of the treatment of which are equally satisfactory.

GELSEMINUM (GELSEMIUM) SEMPERTIRENS IN ODONTALGIA.—Dr. J. W. Legg (Lancet, May 24, 1873) reports several cases of severe pains in the jaw and side of the face, arising from decayed teeth, which were relieved by the use of this drug. From ten to twenty minims of a tincture—made by macerating for a week an ounce of the root in eight ounces of proof spirit—were given every three hours. The pains usually ceased in the course of forty-eight hours. Dr. L. has not found gelsemium of marked service in lumbago, sciatica, or other pains which we are accustomed to call rheumatic.
Progress in Medicine.

REPORT ON THERAPEUTICS.

By R. T. Edes, M.D. Harv.

[Concluded from p. 285.]

Meat Tea.

Bogoslovsky (Arch. f. Anat. u. Physiol. 1872, 347, 428, and Centralblatt, 1873, p. 279), has re-examined the theories of Kemmerich in regard to the action of meat tea, which was supposed by him to depend wholly on the potash salts contained therein. Bogoslovsky says that Kemmerich used too large doses, and that the fact that a rabbit can be killed not only by a large amount of beef tea, but by the salts extracted from a similar amount, proves nothing except that both are (in enormous doses) poisonous.

With small doses the difference is a marked one. While, for example, a rabbit was killed by the injection of extract of 700 gm. (1 lb. 10½ oz.) of meat reduced to 30 ccm. (about 1 oz.), the ashes of the same quantity dissolved in 30 ccm. water produced in another rabbit only a transient acceleration of the pulse, and the animal completely recovered. Nine days after, it died in an hour and a half after the ingestion of the corresponding quantity of meat tea.

It was shown that injections of warm water cause an increased rapidity of the pulse, but of meat tea, a much greater and more lasting acceleration. The salts hardly differ from warm water, or, in larger doses, the acceleration may last somewhat longer.

The author was able to produce these phenomena to a slight degree in his own person, but in another individual did not succeed. After larger doses (10, 20, 30 gm.), in the latter case, the pulse fell while the thermometer was unchanged. After 40 gm., gastric symptoms appeared and the pulse rose. He concludes, as a practical result, that extract of meat is not so innocent a dietetic substance as is generally supposed, but always calls for care in its administration. (If Liebig’s or any similar extract is here referred to, it would seem that the danger is not great unless the quantity used considerably exceeds that mentioned in the directions accompanying the packages.)

In endeavoring to determine to what ingredient meat tea owed the excess of its action over that obtained from the salts, Bogoslovsky found that kreatinin, which exists in extract of beef in considerable quantities, when injected either into the jugular vein, under the skin, or into the stomach, produced a slight acceleration of the heart’s beat, but he could not get any fatal effect.

From all which, it appears that the stimulant action of ordinary doses of beef tea is due partly to the warm water, the salts and the kreatinin. It would seem, however, from the observations last quoted, that the presence of kreatinin is not sufficient to account for the difference between the action in beef tea and the salts obtained therefrom. It is only in exceedingly large doses that the salts alone are sufficient to account for a fatal effect by their depressing action upon the heart.

Leube (Berliner Klin. Wochenschrift, 1873, Nos. 17 and 19, and Cen-
trailblatt, 1873, p. 491) has made use of the following method of preparing a solution of meat, to replace the complicated and costly process of Meissner with natural pepsin, which is besides objectionable on account of the disagreeable taste and smell of the product. 1000 grammes of lean beef is placed in a porcelain pot, with 1000 cubic centimetres of water, and 20 cubic centimetres of pure hydrochloric acid. The mixture is heated in a Papin's digester for 10 or 15 hours, and occasionally stirred. The mass is then rubbed down in a mortar to the consistence of an emulsion, and boiled 15 or 20 hours more, without the cover of the digester being lifted. It is then neutralized with carbonate of soda, evaporated to the consistence of a pap, divided into four portions and dispensed in pots.

The muscular fibres are broken up to a fine detritus, and the greater part of the albuminoid constituents is dissolved. The preparation is well borne and willingly taken, but it is better to use some other easily digestible food therewith, in order not to disgust by too constant use. The taste may be improved by the addition of Liebig's extract.

The solutio carnis has been used in acute gastric ulcer and in chronic dyspepsia. It is supposed to give rest to the stomach by sparing it the labor of digestion, the albuminoids being already converted into peptones.

Antagonism of Digitalin and Saponin.

Köhler (Archiv für experimentelle Pathologie und Pharmakologie, l., p. 188) has examined experimentally the physiological antagonism between digitalin and saponin, the active principle of saponaria officinalis, or "bouncing bet."

The heart of an animal poisoned with saponin is in the condition of a heart whose afferent nerves, both vagus and sympathetic, have been cut, and which is kept in motion by the musculo-motor centres imbedded in the heart substance itself (so long as their excitability and muscular irritability last).

Some of his more important conclusions, as to the partial antagonism existing between these heart poisons, may be abridged as follows:

A frog's heart, brought to rest by saponin, may be set in motion by digitalin; and a heart, stopped by digitalin, can be set in motion by saponin. Digitalin acts by strong excitation of the musculo-motor ganglia; saponin by depression of the strongly excited restraint mechanism (vagus terminations) in the heart.

When the action of the heart is merely slowed by either agent, the other accelerates it.

Digitalin strengthens the beat of the heart poisoned by saponin.

Digitalin can retard for some time the diminished blood pressure produced by saponin.

It can also retard the great depression of the respiratory centre.

It cannot retard the rapid and deep fall of the temperature.

Since digitalin itself produces, in the later stages of its action, paralysis of the musculo-motor ganglia and unexcitability of the muscle, the antagonism of the two substances is not a complete one, and depends upon the stage of poisoning.

The antagonism is better marked and more lasting with small doses. Nevertheless, digitalin can delay the fatal ending of saponin poisoning.

Digitalin cannot be considered the antidote of saponin in the toxicological sense.
Whether, however, it might not be of use in poisoning by delaying a fatal termination and allowing time for elimination, further researches must determine.

(This paper possesses much more interest as a contribution to our knowledge of the modus operandi of the action of digitalis than it does from the "practical" conclusions which the author tries to draw. Saponaria cannot frequently give rise to poisoning, although some French authorities state it to have done so. The dried root is said to contain 31 per cent. of saponin, and "two to four pints of the decoction daily are recommended in lues." The inspissated juice is given in the dose of half an ounce per diem.)

**Phosphorus.**

M. Gubler, in a paper on this drug published in *Bulletin Générale de Thérapeutique* and abridged in *The Practitioner* of July, 1873, p. 46, states that phosphorus is a diffusible stimulant of great energy and of dangerous activity. It should not be used in any affection characterized by nervous, circulatory, or trophic excitation; but in disease unaccompanied by inflammation, fever and nervous excitation, and especially in such cases as are characterized by depression of the circulation, either local or general, diminished power of generating heat, exhaustion, or local asthenia, with paralysis of sensation and movement.

It is of service in those forms of paraplegia not dependant on organic lesion, as well as in cases of cerebral disease in which all irritation has ceased. M. Gubler rather doubts the efficacy attributed to it in the various forms of sclerosis of the nervous centres. Phosphorus is an active agent which may momentarily re-illumine the fading spark, and revivify the languishing powers of life; but as it brings no energy with it, it impoverishes rather than enriches, and can do little for a nervous system exhausted by a chronic affection.

As regards the modes of administration, M. Gubler says that amorphous phosphorus is perhaps the best mode of prescribing it, as this possesses no exciting or irritating action. Solutions are usually preferable to pills. The ethereal tincture, the solution in chloroform, and the solution in oil, are spoken of.

Dr. Thompson (*Practitioner*, July, 1873, p. 13) has derived much benefit from the use of phosphorus in neuralgia. He considers the proper dose to range from one-twentieth to one-quarter of a grain. He begins with one-twelfth every four hours, as the average dose which is safe and efficacious. The treatment may, however, be begun with one-eighth, increased to one-twelfth after six doses.

The great obstacles to its use are the ease with which its preparations decompose and the extreme nauseousness of the fluid preparations. Dr. Thompson says that if a solution of phosphorus in superheated oil is used and enclosed in capsules, they afford an agreeable and perhaps sufficiently efficient means of administration; but he thinks that much diluted solutions are the most advantageous.

He has used two forms:—

- Phosphorized oil, 5iii.;
- Pounded gum arabic, 5vi.;
- Spirits of peppermint, 5ss.;
- Water to, 5vi.

Active, but extremely nasty.
Tincture of phosphorus, \{ Phosphorus, gr. 1. \} Phosphorus, gr. 1.
\{ Alcohol, \} Alcohol.
\{ 3iii. \} 3iii.

Rectified spirit, 3ii.;
Spirits of peppermint, 3ss.;
Water to, 3v.

Active, efficient and convenient, not quite disgusting, unstable.

Dr. Anstie (Practitioner, Aug. 1873, p. 103) relates the case of a patient with neuralgia, who took one-thirtieth of a grain of phosphorus twice daily for seven or eight days, near the end of which time he suffered from a constant burning pain at the epigastrium, and his urine became albuminous and bloody. Hence it appears that there are persons who manifest a peculiar susceptibility to the poisonous action of phosphorus. In the present instance, the phosphorus seems to have exerted a beneficial influence on the neuralgia.

**Saline Cathartics.**

Dr. Adolph W. Miller (Amer. Jour. Pharmacy, July, 1873) considers the effervescing solution of tartrate of sodium an improvement on the popular citrate of magnesia, as being more agreeable to the taste, more reliable and efficient in its action as a purgative, with less tendency to tenesmus; its forming a more permanent solution; and its cheapness.

**Congenital Hydrocele and Hernia.**—In a clinical lecture upon a case of this kind, Dr. Willard Parker states (Med. Record, May 1, 1873), that for a good many years he had done nothing for these cases of hernia in young children as far as the application of mechanical apparatus is concerned. Formerly he used mechanical appliances, but found them to irritate the child greatly, and to do no good. When the child gets so that it can run alone, then a truss may be adjusted, and in many cases it will produce a radical cure. Very rarely will strangulation occur if no apparatus is employed. If such patients must be treated, the only thing of service before the child is old enough to run alone is adhesive plaster. This can be used very satisfactorily in cases of umbilical hernia, and in such it may be employed as early as desirable. Make a roll of adhesive plaster, a little conical, like the end of the finger, and of sufficient size to fill the opening in the abdominal wall. Return the hernia, place this roll of plaster immediately in the opening, and over this a strip of plaster reaching to the back bone upon either side. With such treatment one almost always succeeds in curing cases of umbilical hernia in children. With regard to the congenital hydrocele, it should be let alone. If it is desirable to do something, a little warm water and salt may be used night and morning. If it does not go away within a reasonable length of time, the scrotum may be pricked with a fine needle. The little holes thus made will give escape to the fluid and give rise to sufficient inflammation to close up the cavity. If this does not answer, a little thread may be passed through the scrotum, which is usually quite sufficient. In the performance of both these operations, great care must be exercised that the intestine is not wounded.
The Function of the Eustachian Tube in its Relation to the Renewal and Density of the Air in the Tympanic Cavity, and to the Concavity of the Membrana Tympani. By Thos. F. Rumhold, M.D., of St. Louis.

This work of forty pages is a study of several cases of so-called patency of the Eustachian tube, in which autophony, or the resonance of one's own voice in the affected ear, was a prominent symptom. From this study, the author is led to conclusions that are in direct opposition to the opinions entertained by otologists of the present day on the following subjects: viz., 1st. The method of supplying air to the tympanum; 2nd. The density of the air within this cavity; 3rd. The cause of the uniform concavity of the membrana tympani.

These conclusions are expressed in the following six propositions:—

1st. That during the act of deglutition the Eustachian tube is not an open passage into the tympanum.

2nd. That the walls of the Eustachian tube are constantly in slight contact.

3rd. That the air continually permeates the Eustachian tube into the tympanum, thus maintaining the normal air density in this cavity.

4th. That the air in the normal tympanic cavity is not of equal density with that of the surrounding atmosphere, the air in the tympanum being rarefied.

5th. That one of the functions of the Eustachian tube is the maintenance of this normal air density.

6th. That the rarefied condition of the air in the tympanum is the cause of the uniform concavity of the membrana tympani, especially that portion of it from which "the light spot" is reflected.

The five cases which form the text of the author are of interest only in so far as they show various conditions which produce the one symptom, autophony, but the discussion of these cases, from which the above deductions are drawn, is so rambling and imperfect, and the author's knowledge of the more recent literature on the anatomy and physiology is apparently so slight that the book is of but little value. When an author attacks some of the fundamental principles of physiology, we have a right to expect, at least, a discussion of the literature of the subject; but we look in vain here for any mention of Rüdinger's histological studies, or those of other German writers.

After a careful reading of the book, we must say that the opening propositions are not proved and our physiology, at least in the points here touched upon, although it may need additions, does not yet need revisions.


Dr. Chapman has been known for many years as an advocate of the application of bags of ice or hot water to the back, as a means of varying the circulation in distant parts of the system and as a means
of treatment in many diseases. The work whose title is given above professes to be an explanation of this peculiar system of practice when applied to the treatment of neuralgia. It is, however, more than this. It is a very able and complete description of the complaint. Few authors have given so satisfactory a description of the symptoms and complications attending the disease or condition known as neuralgia. Anstie's work on the same subject is complete and accurate, but not more so than Chapman's. The chapter devoted to treatment is also exhaustive in the consideration of those methods which have been generally employed.

In two respects the present work differs from others. The views advocated by Dr. Chapman in regard to the pathology of neuralgia are the exact reverse of those held by Anstie. The treatment most highly recommended is that peculiar to himself, the so-called neuro-dynamic.

We cannot explain at length the grounds on which the author founds his belief that neuralgia and, in general, pain is due to hyperaemia of the cord or the nerve roots. His reasons are scattered throughout the book in detached sentences, and in no one part carefully collected into a consecutive argument. Facts of little importance in argument, which might even be used on the opposite side, are usually referred to as supporting the author's views, and this with such an assurance of their applicability, that one is led to suppose that the connection ought to be clear and that the obscurity is due to one's own stupidity.

The following passage expresses briefly the author's view and endeavor. "The proposition that there is hyperaemia of the affected nerve-centre in all cases in which pain is felt is, in my opinion, susceptible of decisive proof; for, as I shall hereafter show, by exerting a sedative influence over the spinal centre of a painful nerve, the pain may be abolished; whereas, by exerting a stimulant influence over the spinal centre of a nerve prone to neuralgia, but not actually painful at the time when the stimulus is applied, the pain may be reproduced."

His reasoning seems to be:—excessive sensation, or pain, implies increased function, that is increased action and increased vitality, therefore increased nutrition. This nutrition is not necessarily peripheral, and the activity is not, but is to be found at the "cell-roots" of the nerves supplying the parts. Still, examples of peripheral excess of nutrition are given in the course of the argument, as the heat, redness and swelling of inflammation in a limb, changes in the eye, in the skin as in herpes, erythema, pemphigus. The increased nutrition implies increase of blood or hyperaemia; this is caused by excessive action of "positive motor nerves." Cold, locally applied, causes contraction of bloodvessels. Cold to the back relieves neuralgia, therefore it is a proof that there was hyperaemia of the cell-roots.

Hyperaemia of "cell-roots" is the cause of pain because pain is relieved by cold. Cold causes contraction of bloodvessels at those roots, because it relieves pain and pain is caused by their hyperaemia. Such seems to be his course of reasoning.

When pain exists, he concludes that there is hyperemia of the "cell-roots." No satisfactory proof of this is given. Some examples which he quotes, rather incline one to doubt this hypothesis.

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also argues that, as cold contracts blood-vessels when applied locally near them, it produces contraction of the vessels of the "cell-roots" when applied to the back. This is by no means a necessary result. That cold, even when long applied, can have such an action on the vessels of the cord, needs more proof than is given. When it is considered that the skin, a thick layer of adipose tissue (a poor conductor), muscle and bone separate the vertebral canal from the ice bag, it requires more than mere assertion to prove that such an effect would be produced; especially when we consider that the conservative powers of the system, to resist injurious impressions upon vital organs, may cause the intervening tissues to receive such an amount of blood as to neutralize the cold. That the sympathetic ganglia should be thus affected, is still less probable.

The positive part of his argument is wanting in the fact that his premises are not proved; and of two conclusions, neither of which is satisfactorily proved, he uses at one time one to prove the other, and again the second to prove the first.

In the negative part of the argument, wherein he discusses Anstie's theory, he is more fortunate, not perhaps because he reasons well, but because Anstie reasons poorly. We are glad to see that the case with autopsy, quoted from Romberg by Anstie in support of his views in which he has made such a serious mistake as to entirely reverse what Romberg said, is properly quoted and its little value in support of the atrophic theory of neuralgia is shown by Chapman, especially that, as quoted by Anstie, it is his strongest proof - without which his other reasoning has as little foundation as Chapman's; and other reviews have not noticed the discrepancy between Romberg's account and the quotation.

As to the actual value of the ice bag, there can be no question. This is indeed the most important consideration. Many have used it with benefit, and many more would use it if directions were given sufficiently precise to take away an involuntary fear of doing harm by injudicious application. One would suppose that there was no danger attending the use of ice, judging from Dr. Chapman. In only one or two places does he allude to harm resulting from its use, and in those only incidentally. No careful direction is given as to how to use the ice bag, how long, at what times it should be applied, the contra-indications to its use, the accidents or inconveniences resulting from its use. Only by reading his one hundred cases can some of these particulars be learned.

Of the hundred cases, only one, No. 43, is recorded where relief or entire cure was not obtained. In that, the treatment was only imperfectly carried out and was soon abandoned. The fact that unsuccessful cases are not mentioned, and that loose general expressions are used—"in hundreds of cases I have proved by experiment that this is caused," etc., "my writings teem with facts proving the truth of the assertion," —detract from the credibility of the book. It is to be regretted that there are these blemishes, for the method is worthy of trial, not only ice bags, but hot water bags being included, though the ice bag is more frequently employed and mentioned.

Another blemish is the use at times of a style of expression and words and phrases which are not easily understood except after careful study of preceding pages; this is perhaps unavoidably due to
the propensity the author has for theorizing. To many readers, such passages as the following would convey no clearly understood meaning:

"It may be stated as a rule that the angles of reflection of sensory impressions are generally very acute, though the exceptions to this rule are numerous. Now, when impressions are reflected at angles having the maximum degree of acuteness, they pinge, of course, either on, or extremely close to the points where those impressions were primarily received; and in the case of centric disorder of sensory nerve-centres without an eccentric cause, but with pain referred to any part of the periphery, the disorder being extended to immediately contiguous motor nerve-centres, will probably be transmitted to the region of the referred pain."  

s. g. w.


Inasmuch as hand-books of electro-therapeutics have been increasing in number and excellence during the past few years, we looked forward instinctively, on reading the title of the work which lies before us, to finding here something better than what had gone before; more conciseness and accuracy in the statement of facts, evidence of a more scientific and critical examination of conflicting observations and opinions. In this hope we were disappointed.

In some respects, the work is a valuable addition to the general literature of the subject, but it does not possess the peculiar merits of a first-class hand-book, and the author's mode of expressing himself is obscure, careless and often faulty.

The first sixteen pages, the least accurate and explicit of all, are devoted to electro-physics.

He tells us here, for example, that "all the phenomena of tension* may be studied with the galvanometer," and that, when the galvanometer is connected with the circuit of a battery, "the deflection of the needle indicates the tension (which is proportional to the number of elements employed) of the current."

To show the inaccuracy of this statement, we would simply point out that in the medical batteries in common use, which are generally of high resistance, five cells will commonly give nearly the same deflection as fifty, although the tension in the latter case is tenfold greater than in the former.

After some descriptions of instruments, comes a chapter on electro-physiology. Speaking here of the action of electricity upon the organs of special sense, or in his words, "the special organs of sense," he mentions "the organ of taste," saying, "the galvanic current produces upon the tongue twitchings of that organ, a metallic taste and flashes of light!"

The off-hand manner in which he speaks of the effects produced, experimentally and clinically, by the galvanization of the sympathetic nerve, is in striking contrast to the critical examination which this much discussed subject receives in the last edition of Ziemsen's work.

* Italics throughout are ours.
The bulk of the book is devoted to therapeutical considerations, and contains many interesting cases which are well worth reading, but which suffer from the company they keep in the way of general statements.

Attention is invited to the following, which is hard to credit, and still harder to parse:

"Facial Paralysis.—This disease, which may be produced by exposure, exudation, or pressure of the seventh cranial nerve in some bony canal by the product of inflammation, has its seat usually in the Fallopian canal. A syphilitic tumor in the cerebral substance may also make this pressure."

Further on he says: "By the term hyperesthesia, we mean an exalted state of sensibility in the nerve itself, dependent upon some change between its point of origin and periphery. It does not necessarily depend upon inflammation of the nerve, for the pain of hyperesthesia is different from that of inflammation."

Some of our readers may demur at the following: "It is the opinion of dermatologists, nowadays, I believe, that skin diseases are simply neuroses. * * * * * Numerous experiments substantiate the truth of this assertion, and have proved that nearly all skin diseases are amenable to electricity."

The surgical portion of the book is by far the best, and further revision might have made it excellent, both in matter and form. The reports of cases are numerous and interesting.

The number of American books which have received the criticism "wanting in thoroughness," is already full large enough. We are sorry to have to pass it upon another, and confess to feeling sensitive, in spite of the valuable matter that accompanies them, in sending so many blunders across the water for foreign criticism.

J. J. P.

BOOKS AND PAMPHLETS RECEIVED.


Extrait du Dictionnaire Encyclopédique des Sciences Médicales, publié sous la direction de Dr. A. Dechambre.


Transactions of the Kentucky State Medical Society, 1873. Pp. 168.


"The Reward of Science" is the title of an article in the Medical Times and Gazette, on the refusal of the Treasury to increase the pay of the scientific staff of the British Museum. The writer deplors the fact that there is no work in life so likely to lead to disappointment and penury as the pursuit of science for its own sake, and that there is no kind of labor so poorly paid as that of scientific men. Indeed, all scientific professions, he thinks, are fast falling behind the commercial and business classes at the present rate of remuneration. Facts go to show in Great Britain, and we think the same would be found to be true in this country, that the medical man of to-day is more poorly paid for his services than he was half a century ago. It is true that the young practitioner at the present time obtains a moderate income much more rapidly than ever before—the contrast with the success of the beginner of former years being quite striking. We doubt, however, if this apparent successful opening of a career is an indication of any unusual prosperity of the profession, which, indeed, might be much more substantially rewarded for its services than it is. It is doubtless difficult to find any remedy for such a state of affairs; but we think that the profession might do much to help and protect itself in this matter, without incurring the reproach of too great greediness for gain; a fault, by the way, which it is hardly likely that the doctors are in danger of being accused of. The great extent to which the system of hospital charities has been carried of late years has given an opportunity for gross abuse of the advantages which the public enjoy in the way of gratuitous advice and treatment; and the New York Medical Record has shown to what an extent this has been carried in New York. It may be said that the same is substantially true of all large cities. The proportion of patients well able to pay among those who frequent our numerous hospitals and dispensaries has reached a point that hardly ought to be tolerated even by such a long suffering and benevolent profession as our own. The really poor man is cheated out of the time which should be allotted to him alone, while the younger physicians are cut off from a certain class who should by good rights extend their patronage to him.

The article originally referred to blames, and justly we think, those men who have attained the highest round of the ladder of success, and whose position enables them to refuse everything except the most remunerative practice. The custom of charging exceedingly small fees,
now in vogue with many of our most distinguished medical men, acts injuriously both on the younger practitioners and on that class of people who are well able to command their time and attention. If these men were to double their minimum charges, the result would be that the gross receipts of the profession would be largely increased from the pockets of the rich; and those of moderate or small means would be better taken care of for the same money which they now pay.

The unfortunate man whose corpse found its way so rapidly into the vats of the Medical School of the University of Pennsylvania, was a well-known, highly respectable, elderly bachelor farmer, of Washington County; a man also of considerable means. His intellect had been somewhat impaired by an injury to the head sustained some years ago. He left home suddenly, and, a few days after, his dead body was found in the Schuylkill and taken to the morgue. In less than forty-eight hours he was within the walls of the University, injected and stowed away in the great receptacles for "material" which is accumulated during the summer season, to meet the demands of the large number of students who frequent Philadelphia in the lecture season. Had it not happened that his watch was discovered in a pawn-broker's shop, his disappearance might have forever remained a mystery. Such scandals as this are, fortunately, at the present day, exceedingly rare, and, with proper deference to the present liberal state of legislation on this subject, ought never to occur.

The sixth annual meeting of the Canada Medical Association was held in Odd Fellows' Hall, city of St. John, N. B., commencing on the 6th of August. Dr. J. A. Grant, M.P., occupied the chair and delivered the opening address. Dr. Hingston read a paper on the "History of Surgery in America," from the early times down to the present day. Dr. Botsford also read a paper on "Hygiene." About fifty members were present. A lunch was given by the members of the medical profession of St. John, in the hall of the lunatic asylum. It was arranged that the next meeting of the association should take place at Niagara Falls, on the first Wednesday in August, 1874.

The reports last week, concerning yellow-fever at Shreveport, were of the wildest description, the deaths numbering from thirty to forty daily. It was with difficulty that help could be obtained to work the telegraph, so many of the operators had succumbed to the disease. The fever was said to be spreading in northern Louisiana, and even Memphis had been attacked. Subscriptions, for the relief of the sufferers, are being rapidly sent from various parts of the Union.
OPiUM AND THE Actual Cautery in the Treatment of Cholera. By C. E. Brown-Sequard, M.D.—I have had considerable experience in the treatment of epidemic or Asiatic cholera. In 1849, in Paris, the number of army physicians being insufficient, some civilians, among whom I was, were called to take charge of the soldiers attacked with cholera, at the Gros-Caillou Hospital. In the Mauritius, at Port Louis, in 1854, I had charge of a hospital—besides a very large private practice—during one of the most murderous epidemics of cholera that have existed outside of India. Nearly 6,000 people out of a population of about 45,000, died in five weeks. Of all the means of treatment I have employed (and my trials have been very numerous) none has given by far as favorable results as the use of opium in extremely large doses. I will only mention what occurred at a convent, which seems to have been one of the great foci of the disease in the Port-Louis epidemic. No death was observed there, although a large number of Sisters of Charity and of young girls (the convent was a boarding-school) were attacked with either the premonitory symptoms or the confirmed and cyanotic cholera. Thirteen of those patients were seized with the most serious symptoms, and all, however, recovered, many of them, if not all, evidently owing to the treatment. For reasons mentioned hereafter, a great many of my hospital and private patients died, notwithstanding my having used opium in their case as I did at the convent. But here was the difference, and in this lies the important point as regards the use of opium against cholera: In the convent the rules given were strictly followed; they were not elsewhere.

They were, first, to give opium every twenty minutes and in large doses so long as the cholera symptoms existed, without fearing poisoning; secondly, to begin the treatment as early as possible. The Sisters of Charity acted just as I desired, and saved, as I have said, all their patients. The fear of poisoning, and many other reasons, prevented the proper application of the rules elsewhere. The preparation almost always employed was laudanum. If there was no great vomiting, or if the vomiting was checked by Rivière's potion (a carbonate and tartaric acid, taken separately one immediately after the other, disengaging carbonic acid inside of the stomach), the laudanum was given by the mouth. If the vomiting was frequent, the laudanum was injected into the bowels, but with the precaution of having a thorough washing of the large intestine by a previous enema to bring out all the contents of that tube, so that the laudanum was rarely rejected. In bad cases a dose of twenty minims of strong laudanum (Sydenham's) was used every fifteen or twenty minutes until the cholera symptoms had ceased, or (which never occurred when cholera still showed its existence) until some slight symptoms of opium-poisoning appeared.

I hardly need to say that this mode of treatment does not succeed when the blood has been considerably altered by the loss of a very large amount of its salts.

Of course these rules are not to be followed in cases of mere cholera or in the premonitory stages of cholera; but even then opium in much smaller doses is also the best means.

Now that we possess a much better means of obtaining rapid absorption of the principal curative element of opium—morphine—in
subcutaneous injections, it is clear that it is that substance which ought to be used and in that way. I may add that many physicians have already proposed and used subcutaneous injections of morphine against cholera.

Against the lack of urinary secretion in cholera, I have employed with benefit, in some cases, the actual cautery on the loins.

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**ENORMOUS ACCUMULATION OF EXTRANEOUS MATTER IN THE STOMACH.**

The patient in this case was a girl, aged 4, who died in the Hardwicke Hospital, of uncontrollable purging and vomiting. For nine months she had had a hard tumor in her abdomen, but nothing peculiar had been observed by her mother about her appetite. She never complained of any pain till two days before her death, when she was attacked with sudden colic, which lasted about an hour and recurred twice. The tumor was large and hard, and was freely movable. At the autopsy it was found to be composed of a collection of extraneous matters, such as pieces of cloth, cord, straw, grass, chips of wood, &c., which were all matted together into one large mass occupying the entire cavity of the stomach. A similar aggregation was found near the end of the jejunum. The rest of the intestine was empty and healthy throughout, with the exception of a large ulcer which existed in the duodenum over the head of the pancreas. Dr. Yeo, by whom the specimen was shown at the meeting of the Dublin Pathological Society, considered the case interesting as showing the difficulties attending the diagnosis of the disease called *pica*, when the peculiar aberration had never been observed. The amount and position of the aggregation were also unusual. The ulcer in the duodenum seemed to support the idea that some irritation in the alimentary tract is the usual cause of the disease.—*The Medical Press and Circular*, April 2, 1873.

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The following extract is taken, verbatim et literatim, from the *Medical Investigator*, of Chicago (homeopathic):

"In the proving of drugs, certain effects are produced which point unmistakably to the condition of the organism resembling the effects of the moral emotions, which fill a vacuum unsupplied by other schools. And so true is found to be this universal law of like for like, that the mariner steers not his ship more unerringly and with more confidence through the trackless waste of water, guided alone by his compass, than relies the homeopathic practitioner upon *aconite*, *opium* and *pulsatilla*, for the effects of fright; *coffee* for excessive joy; *colocynthis* for indignation; *hyoscyamus* for disappointed love; *ignatia* for grief; or *nux* or *chamomilla* for the effects of a fit of passion."

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**Correspondence.**

**POISONING BY ARSENCAL WALL PAPER.**

**Messrs. Editors.—** It has been suggested to me that my recent personal experience with arsenical wall paper will be of interest to the profession. I recount the circumstances the more willingly, because an opportunity is thus
afforded me of testifying to the direct practical benefit which is conferred by
the publication and distribution of such reports as those of the State Board
of Health of Massachusetts.

On arriving with my family at London, England, on Feb. 15th, 1873, we
entered into the occupancy of three exceptionally clean and pleasant rooms
in a lodging-house situated in the vicinity of Russell Square; in Thackeray's
time, this was the most fashionable quarter, and it is now regarded as one of
the healthiest districts of that great metropolis of 4,000,000 souls, which,
according to our minister, Gen. Schenck, possesses an atmosphere but no
climate.

The need of rest after several weeks of sight-seeing and shopping in Paris,
together with inclement weather, confined my wife to the house for some
days; my child, one year old, was, likewise, seldom taken out of doors. I
was at the hospitals as long as daylight lasted. For a week or two, we were
comfortable enough, though I noticed with regret that my wife did not
regain her lost strength, as I had reason to expect she would.

About the middle of the third week, I was surprised at finding a large
 felon on the child's thumb, to explain which I was fain to suspect the pres-
 ence of a broken needle or splinter, in lieu of any definable cause, although
 neither of these foreign bodies could be detected; the felon, on being lanced,
 heeled rapidly.

During the third week, my wife's strength and appetite began to fail; she
woked every morning with a headache; had a few colicky pains, but no char-
acteristic symptoms were evinced. On Wednesday morning of this week,
the nurse called my attention to the child's eyes, which were glued together,
and reported at the same time that there had been a constant overflow of
tears for several days, as well as a loss of appetite and much fretfulness. On
examination, scarcely any injection, either of the orbital or palpebral con-
 junctiva was discernible, but considerable mucus was found adhering to the
eyelashes. The lachrymal ducts appeared to be pervious, so that the ex-
cessive discharge must have been due to a hypersecretion (epipleon) and not
to obstruction of the natural drainage tubes (stillicidium lachrymarum).
The fact of its occurrence in both eyes and its not being attributable to any
manifest, local or constitutional cause, awakened my suspicions.

The perusal of Dr. Draper's valuable paper in the second Report of the
State Board of Health, shortly after its publication, had rendered me familiar
with the symptoms of chronic poisoning by arsenical wall papers. Casting
about to discover the origo malì, I was guided, by the knowledge thus
acquired, to examine the paper covering the walls of our rooms. It was of
a pale greenish tint, unglazed, and had the color so loosely attached that
whatever came in contact with the wall was covered with a green powder.
Any lingering doubts, that I still entertained, of the correctness of my
diagnosis were speedily dissipated by a comparison of the paper with the
specimens included by Dr. Draper in the report above cited. It coincided
exactly with the lightest of the three shades there given. To make convic-
tion more certain and to satisfy the very natural objections of my landlady,
however, I requested my friend, Dr. Paine of St. Thomas' Hospital, to
analyze the paper; this he very kindly did, and reported the presence of a
large amount of arsenic.

It should have been stated that the rooms had been recently re-papered
and painted, and that we were the first occupants after the renovations were
completed.

We left the next day for the Isle of Wight, where a fresh invigorating
atmosphere, charged with nothing more noxious than salt and iodine from
decomposing seaweed, soon restored the two invalids to their wonted good
health.

At a later period, it transpired that the workmen employed to remove the
paper from the walls, were rendered ill by that work, as were those, likewise,
who had originally hung it; the nature of their symptoms was not made
known to me.

There was nothing very peculiar about the two cases which I have related,
except the remarkable rapidity with which the poisonous inhalations gave rise to manifest symptoms; headaches, loss of appetite, emaciation, general malaise, colic, &c., testifying to the great amount of the poison introduced into the system in less than a month. The possibility of so rapid an absorption must be admitted, when we reflect upon the extremely loose attachment of the color, which would make a resort to the recently demonstrated emanations of arsenuretted hydrogen, in the otherwise pure air of rooms, quite superfluous. That the atmosphere must have been filled with floating particles of the arsenical coloring matters is further shown by their direct irritant action upon the conjunctive.

My exemption from being affected was undoubtedly due chiefly to my absence from the rooms during the better part of the day, and perhaps also, in a measure, to my small susceptibility to such impressions. The nurse had also been exempt, except for a slight "weakness of the eyes;" she, however, had not joined us until March 1st, and had, therefore, been exposed for a short time only.

Our escape from serious and, possibly, from life long suffering may, I am convinced, be justly attributed to the publication of Dr. Draper's paper in the Report of the State Board of Health, which, by bringing freshly and vividly to my mind the symptoms of chronic arsenic poisoning, enabled me to make an early diagnosis of the affection, and to confirm this by a comparison of the wall paper with the specimens there given.

That the reports are of inestimable practical utility to the community is made evident by these cases, which may be taken as types of many others.

I am very truly yours,

JAMES R. CHADWICK.

123 Boylston St., Boston, Aug. 1873.

MESSRS EDITORS,—At the quarterly meeting of the Rhode Island Medical Society, held in Providence, Sept. 17th, the following resolution, introduced by Alexander R. Becker, M.D. of Providence, was, after earnest remarks from several of the leading members, unanimously passed.

"Resolved: That, in view of the disastrous effects occasionally arising from a continued use of powerful remedies without due medical authority, the Rhode Island Medical Society earnestly requests the dispensing apothecaries of the State to positively decline renewing prescriptions containing toxic or narcotic remedies, without fresh authority from the prescribing physician."

The secretary was also directed to forward a copy of the resolution to the State Board of Pharmacy.

Would it not be well for the JOURNAL to press similar action on the other State Societies? If the matter were followed up, we might even get laws enacted to prevent this unauthorized renewal of prescriptions, the evils of which are well known to every practitioner.

I am, gentlemen, very truly yours,

ALEXANDER R. BECKER.

Providence, Sept. 18, 1873.

SMALLEST ANGLE OF DISTINCT VISION.

MESSRS. EDITORS,—I see it stated "in the books" that the smallest angle of distinct vision is about one second.

On going out this morning to see if the frost had cut down my squash-vines, I noticed the grass covered with spider-webs. I could easily see a single thread, when the sun shone upon it, at seventy feet distance.

On measuring a thread with the microscope and micrometer, I found it to be $\frac{1}{1000}$ of an inch in thickness. At seventy feet, this would therefore subtend an angle of less than the hundredth part of a second.

Yours respectfully,

"COUNTRY DOCTOR."
Medical Miscellany.

We are glad to learn that it is intended to devote a portion of the immense wealth of the late Duke of Brunswick, towards founding a Faculty of Medicine at Geneva.

Dr. Carl Rudolph Braun, the renowned Professor of obstetrics and gynaecology of the University of Vienna, has been raised to knighthood, with the title of "Fernwald."

The distinguished surgeon Nélaton is dead. It was at one time hoped that he was in a fair way of recovery from his severe illness. On Saturday last, however, a relapse suddenly occurred when he sank rapidly, and died during the night.

Physicians who have received circulars relating to cerebro-spinal fever and school hygiene, are respectfully asked to send replies to the undersigned, on or before October 1st.

George Derby, M.D.

102 Charles St., Boston. Secretary of State Board of Health.

Cod Liver Oil Bread should contain about seventy-five grammes (five tablespoonfuls) of oil to the pound of bread, and three ounces of milk. Small loaves may be made, weighing 150 grammes and containing only two spoonfuls of oil. They are very white and pleasant to look at, and have so little taste of the oil that both children and adults eat them with ease. Thirty-four of these rolls are delivered every day at the Enfants Malades for the use of M. Bouchut's little patients, and the children look out for them with pleasure. They are easily digested and create no repugnance whatever. In private practice, adults make use of them as their ordinary diet.—Bulletin de Thérapeutique.

A New Use for Old Stockings.—Apropos of impromptu fracture apparatus, we copy the following paragraph now going the rounds of the medical journals. We have often found the stocking a valuable substitute for the roller in bandages. "The broken limb is first bandaged with an ordinary roller; this is well coated with the gum and chalk mixture; a stocking is slipped on over this and similarly coated; another stocking is put on over this; and a fine layer of gum and chalk over all. This, for a case of transverse fracture, with a little starch or plaster of Paris, supplies a very neat and serviceable splint."

Professor Rokitansky. This distinguished ornament of the Vienna Medical School has announced to the Professoren-Collegium that next year he will have attained his seventieth year. According to the regulations, he should then retire from his professorship and be placed on the pension-list. It seems, however, that, seeing the great loss his retiring would inflict upon the Vienna School, of which he may almost be considered the founder, an effort will be made to have his case regarded as an exceptional one, as long as his present good health and teaching power continue.

A Wax Candle in the Bladder of a Female.—This interesting case was observed a short time ago at the Hôtel Dieu, Paris. The patient, on admission, complained of intense pain in the abdomen. The urethra, abnormally dilated, easily admitted the finger into the bladder, when a hard, voluminous body was felt. The woman stated that, on account of great difficulty in making water, she had passed a candle through the urethra and had accidentally let it slip into the bladder. It was readily removed with a pair of pincers. The end of the candle, which had been rounded with a knife, was covered with calcareous matter gathered there during the five weeks the candle had stayed in the bladder. Speedy recovery followed.
THE medical societies are about to resume the meetings suspended during the summer. The first meeting of the "Suffolk District" takes place on Sept. 27th; of the "Sciences," on Sept. 30th; of the "Observation," on Oct. 6th. The "Obstetrical" also resumes shortly. The "Improvement" has continued during the summer as usual. We shall take special pains to keep our readers currently informed of the proceedings of the Boston Societies, and hope that the secretaries of societies throughout New England will favor us with frequent reports.

The friends of legitimate medicine, everywhere, will be gratified to learn that the homeopaths are not, after all, to hold professorships in the school at Ann Arbor. The legislature of the State of Michigan passed the law requiring the appointment of the "infinitesimals," but the board of regents declined to execute it. The supreme court of the State refused to grant a mandamus requiring the regents to comply with the law, whereupon the latter met and passed, with but one dissenting voice, the following very dignified and sensible resolution: "That we maintain the position heretofore taken, and decline to make the appointments required by law; that we do this in no spirit of factious opposition to the apparent will of the legislature, but because we believe the true and best interests of the university demand it; that we re-affirm the former action of the board expressing a willingness to take official charge of an independent school of homeopathy, and connect it with the university, whenever the means shall be provided for the payment of professors.—Canadian Medical Times.

SNOW AND BOGGS, ON GLYCERINE AS A VEHICLE FOR ASTRINGENT MEDICINES.—Dr. Snow (British Medical Journal, June 28) points out that the astringent metallic taste which remains in the mouth after the administration of tincture of perchloride of iron, and which is but imperfectly disguised by the syrup or spirit of chloroform usually prescribed for the purpose, may be obviated by the use of a small quantity of glycerine—about half an ounce to an eight-ounce mixture. Dr. Boggs, in commenting on the above (British Medical Journal, July 5), says that he has for a long time adopted the plan, with the additional object of counteracting the astringent effect of the perchloride of iron on the bowels. He suggests that glycerine might, with advantage, be substituted for syrup in cases where the latter is prescribed as a vehicle for preparations of iron, cinchona, rhatany, &c., which have a tendency to constipate. He also refers to the superior solvent and keeping properties of glycerine.

MORTALITY IN MASSACHUSETTS.—Deaths in eighteen Cities and Towns for the week ending September 13, 1873.

Boston, 148; Charlestown, 18; Worcester, 18; Lowell, 33; Milford, 3; Chelsea, 8; Cambridge, 28; Salem, 12; Lawrence, 11; Springfield, 9; Lynn, 21; Gloucester, 2; Fitchburg, 2; Newburyport, 6; Somerville, 8; Fall River, 21; Haverhill, 8; Holyoke, 5; Total, 361.

Prevalent Diseases.—Cholera infantum, 92; consumption, 39; scarlet fever, 17; typhoid fever, 10; dysentery and diarrhoea 12.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.
IVORY EXOSTOSIS.

By W. C. B. Fifield, M.D., Boston.

The text of this article is furnished by a preparation in the Warren Anatomical Museum, No. 1465, accompanied by a photograph, No. 1464, called, in the catalogue, "Ivory Exostosis of the Frontal Region." The following history of the case is given in the catalogue:

"Farmer, æt. twenty-four years, entered the hospital. Three years previously he fell upon the ice, struck his forehead, and just afterwards a tumor appeared. On admission, the tumor extended from the left temple to just beyond the median line, and from the roots of the hair downward into the orbit. Eye protruded and was displaced downward and outward. Oct. 19th, an operation was performed, when a thin shell of bone, deficient at various points, was found expanded over the tumor, and, between the two, a quantity of degenerated pus. Two slices of the tumor were removed by an amputating saw, and then with the mallet and chisel the remaining portion was cut down to a level with the frontal bone and gouged out of the orbit, so that the eye could be restored to its natural position. There was not the slightest sign of vascularity in the tumor. On the 24th, the patient died, having had delirium and coma.

"On dissection, the tumor was found to project internally as it did externally, and to compress the left anterior lobe of the brain which had been converted into an abscess. The right hemisphere, where in contact with the left, was sloughing and purulent for the space of a square inch, but the meningeal inflammation was slight. In structure, the internal, like the external portion of the tumor, was uniformly dense throughout and nowhere cancelled; but from its color and general appearance it would seem to have undergone necrosis, though, being so devoid of vessels, this could not easily be determined. It was loose in the framework of the frontal bone, whereas, when operated upon, it was perfectly fixed. There was also a bony shell about the internal portion as about the external, but without the intervening puriform substance, and the tumor itself was invested with something like a membrane that was easily wiped.

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off, and that was not observed on the external portion. The growth seemed to have its origin in the frontal sinus or the diploe of the frontal bone, the bony shell about it being, probably, the expanded inner and outer tables of the bone."

On inspection of the preparation, one is struck with the entire inadequacy of the operation practised, to do more than temporarily relieve the jammed and crowded eye. The great severity of the operation, and, to some degree, the termination of this case as well as others, seem to have proceeded from ignorance of the pathology of the affection, leading to an irrational operation.

Light appears, however, to have broken in upon our darkness, and henceforth we may hope that the diagnosis, pathology and treatment of ivory exostosis will be as well established as that of any other morbid growth of the body.

Certain peculiarities of this exostosis seem to have been known from an early period. Mackenzie says, in his work on Diseases of the Eye, in 1828, "Exostosis may spring from any side of the orbit. We might, perhaps, suppose it more likely to grow from the floor or from the temporal side of that cavity, than from the thin bones which form its roof and nasal side, but this does not appear to be the case." Such exostoses likewise affect the facial bones, as in the case of the son of the surgeon of Perpignan.

Mr. Travers told us of exostoses of the orbit being removed while yet cartilaginous, that these growths could become necrosed and that they also sprang from the antrum.

Mackenzie also quotes a case from Benjamin Bell, where a peasant succeeded, when a surgeon had failed in removing an exostosis which had pushed an eye nearly out of the socket, by cutting around, not upon the growth, and applying a secret remedy.

All this indicated: 1st. That these growths sprung either from, or in the immediate neighborhood of, a cavity lined with a mucous membrane. 2nd. That they were originally vascular, else how could they have taken on necrosis. 3rd. That they might be found in the juice, so to express it, i.e., in the cartilaginous state. 4th. That to successfully remove them, the circumference of the growth must be attacked and not the surface. Lastly, we may state that what was true of the preparation serving us for a text was found true of all preparations of the kind; that, after maceration, they were found loose in the bone; that they were, as the French say, "enclavé," but not indissolubly soldered to the bone, bearing perhaps the same relation to it that an epiphysis does to its diaphysis in early life.

Here the matter stood. Surgeons had, with much sweat and toil, hammered and chiselled at the growths, when, in 1851, M. le Prof. Verneuil found, at the inferior part of the maxillary sinus of a young man twenty-five years old, two or three extremely hard elevations, due to concretions adherent to the mucous membrane. They were scarcely as large as the head of a pin, and were formed of osseous
tissue. They were already adherent to the walls of the cavity, but, nevertheless, could be dissected up by a delicate scalpel. M. Verneuil drew no conclusion from this discovery, and MM. Denonvilliers and Gosselin were the first who thought that exostosis of the sinuses originated from the mucous membrane. Many morbid anatomists verified this thought, and, at a discus-
sion at the Société de Chirurgie, in 1856, when M. Lenoir presented a specimen, M. Grinaldes said that he had seen many
examples in the Museum of London, and that Holmes Coote had
sent him a note speaking of a beautiful specimen in the collection
at St. Bartholomew's Hospital.

From these different labors, the following conclusions resulted :

1st. That these tumors commence by points of a grayish white
color, in the substance of the mucous membrane which covers the
sinuses. (They are always found covered, in some part, with a
mucous membrane, even when large in size, as proved by the text
case.)

2nd. That the hyaline matter which they enclose becomes, at
length, osseous.

3rd. That they quickly become adherent to the subjacent walls.
(They occur mostly in youths, when the mucous membrane is active
and irritable, as shown by epistaxis.)

4th. That they have a great tendency to increase, and in all
probability it is from the deep layers of the periosteum, where the
phenomena of the growth of bone take place, that their nutrition is
drawn. Let it be here remembered that the mucous membrane of
the facial cavities is of the order of fibro-mucous membrane and con-
stitutes here a true periosteum.

It is not only in the human species that these productions have
been observed. M. Am. Forget has found a large number of small
ones in the sphenoidal sinuses of horses, and M. Goubaux has de-
scribed some very large ones which had invaded the cerebral cavity.
These productions have formerly been described as ossifications of
the brain, and the observations of Howship, as well as the famous
case of the fish woman of London, prove that, in human beings, these
tumors can take the place of the brain which they drive into the
back part of the skull.

To the other observers, may be added the names of Michon,
Maisonneuve and Pamard.

If we allow the premise that ivory exostosis springs from a
mucous membrane, we must allow some conclusions which may
appear startling.

It must be admitted, firstly, that these exostoses are free in the
cavities in which they take their origin, save their attachment to the
mother tissue.

Secondly, that they are vascular, cancelled if you like; that
their eburnation is a proof of this, as only intense vascular action can produce eburnation and the characteristic quick growth. In this very element of superabundant life, lies the element of their destruction, the vessels or cells depositing at their termination organic matter, thus gradually strangling themselves and tending to end by necrosis, the increase being from base to apex.

Thirdly, to destroy them, the nutrient vessels at the seat of implantation must be severed; to attack them from the surface is idle trifling. M. Dolbeau, in operating at Hôtel Dieu on one of these exostoses, saw, at the moment of separation, so much blood poured from the divided vessels of the neoplasm, that the state of the patient was extremely critical, and when the separation was accomplished, he was obliged to stop with wax a great nutrient vessel situated in the partition between the two frontal sinuses. M. Richet also saw, in one of his own cases, blood come in abundance from a number of gaping arteries. The reason the operator, in the case taken as a text, did not meet with even the slightest bleeding, was that there were no vessels there. He was dealing his blows upon a dead tissue. Had he got at the pedicle it would have been different.

The origin of the tumor, in the textual case, from the mucous membrane of the frontal sinus, is shown by the concrete pus (which was in all probability mucus, not pus) found beneath the external sheath, that is, the anterior wall of the sinus. The membrane over the internal projection of the tumor may be supposed to be the relics of a mucous membrane.

This case, as well as some others, appear to date from a blow, received in falling or otherwise. One can hardly believe they owe their origin to this, but it may be believed, either that their growth was hastened by such an event, or that it only helped to remove a resisting wall, already pressed upon by the tumor.

The diagnosis being established, prognosis can be quickly made. The growth may increase to such an extent that life is no longer possible. It may, perchance, become stationary or take on necrosis and be expelled spontaneously; or it may be necrosed, and afterwards be removed by the efforts of art. It may also be removed without necrosis.

From the foregoing statements, we may advise either a wise forbearance from any active interference, or propose a removal of the entire growth, which may now be urged with the more propriety, since we are founded in the belief that the growth, to a certain extent, lies free in the cavity in which it originated. If, after a careful estimation of the extent of the tumor and its probable ramifications, we determine upon removal, how shall we set about it? Certainly not by attacking its surface. Not only would this do no good, but it would expose the patient to the dangers of meningeal inflammation and cerebral abscess, if not followed by death from the rude
shocks of hammering and chiselling. This was the case with patients upon whom Roux and Jobert expended their efforts and whose skulls may be seen at the Musée Dupuytren and at Val de Grâce. If, however, the extent of the tumor forbade its extirpation, they removed only the part most pressed upon, as, for instance, the eye, in our text case.

M. Bouyer (de Saintes) in 1840, although not cognizant of the pathology of the affection, "placed," says M. Richet, "before a case, and pressed by necessity, invented the best method of extirpating exostosis of the frontal sinus." But we are also under great obligations to M. Dolbeau, who, in 1864, encountered at Hôtel Dieu a case of ivory exostosis of the frontal sinus in a young man, and, resting on a firm base of sound pathology, proceeded to its removal. Believing it would be found free in its cavity, it occurred to him that if he could open a wide enough gateway he could pull it out. Acting on this belief, he proceeded thus: the anterior wall of the sinus having been well cleared away from around the growth, he attempted to extract it. In this effort, it broke into two portions. The second part of the operation presented more difficulties; in fact, the posterior hemisphere of the exostosis opposed such a resistance to extirpation, and so much blood was lost, that the life of the patient was, for a time, in much hazard. Finally, these troubles were surmounted, the débris of the growth were removed, and the operation terminated, but, as has been said, the hole of the great nutrient artery of the tumor, "situated upon the partition of the two frontal sinuses," was stopped with wax. The patient fully recovered.

M. Richet also removed an ivory exostosis of the frontal sinus, with like success. "A young miller," says M. Richet, "came to me with an exostosis of the right frontal sinus. After uncovering the salient part of the tumor, which was smooth and rounded, I reached the portion adherent (encastré) to the frontal bone, which formed a sort of pedicle. Seizing this with strong forceps I tried to shake it, but uselessly. I then introduced, between the internal orbital apophysis and a portion of the circumference of the tumor, a long and strong lever of steel, made expressly for the purpose; then by a rocking movement, a crack being heard by all present, the exostosis became movable. I could then seize it, shake it, and pull it out with strong tooth forceps."

Maisonneuve, in his two cases, had the good fortune, in the midst of his hammerings, to chip off a bit, revealing a pedicle which he immediately severed. Lenoir, after having in his case found the pedicle, detached it with a chisel struck with a mallet. In these cases, we see that there is a pedicle or basic attachment which must be separated.

It is proper to say here, that M. Richet, whilst recognizing the pathology of the affection and acquiescing heartily in the plan of
battle, yet holds that the exostosis does not lie free in the cavity, but is closely adherent, although not affirming it to be one with the skeleton. It seems, on the contrary, to be attached in the same way as the epiphysis, and may at length become, in old age, one with the skeleton.

That ivory exostosis of the frontal sinus may be spontaneously loosened sufficiently to be extracted without difficulty, is shown by the case of Mr. Lucas, quoted in Mackenzie's work on Diseases of the Eye, where an exostosis appeared at the inner angle of the orbit, after a blow from a cow's horn. The eye hung pendulous and loose beyond the external edge of the outer angle of the orbit. (Proof of the origin of the tumor from the sinus.) Mr. L., to ascertain the nature of the tumor, which, although hard, appeared loose, made a horizontal incision through the upper eyelid, about an inch in length. On separating the edges of the wound, the tumor was found to be a solid piece of bone, covered by the common integuments and a thin membrane, somewhat resembling periosteum, to which the tumor was but slightly attached. The incision did not heal, but continued nearly its original size, discharging a small quantity of thin pus. The bone continued to increase in size, and the eye was still more pushed out of its natural position. At length, September, 1802, seven months from its first appearance, the patient being in perfect health, the bone became carious, evidently loose, and pushed somewhat forwards. Mr. Lucas endeavored to extract it, by making an incision round the edges of the former wound, and seizing it with strong forceps. The first attempt failed; a second, made a few days afterwards, succeeded, Mr. Lucas extracting, without much force, a piece of bone of oblong shape, weighing an ounce and two drachms, hard, solid and smooth. The extraction was followed by no bleeding. The cavity left was found to be lined with a strong membrane, smooth on its upper and inner sides, but somewhat uneven on the side next the eye. Section of the tumor proved it to be an ivory exostosis. In no part did it show any signs of fracture. This contradicts the idea of bony attachment to the skeleton, and strengthens the comparison to an epiphysis which is also sometimes cast loose by suppuration.

Thus, then, ivory exostosis always originates on or in a mucous membrane lining bony cavities, as the antrum, nasal fossæ, ethmoidal cells, frontal sinus, &c.

Since it is now known that these growths, particularly those of the frontal sinus, are independent of the cranial cavity, and usually of the orbit likewise, one can operate more boldly. The observation of M. Maisonneuve, in the Archives, is in point:—"When I felt this enormous tumor, which seemed to come from the very recesses of the cranium, start, it was a moment full of emotion. In what state should I find the walls of the orbit, the eye itself, and the organs which give to it motion and life? These reflections had only
the duration of a flash of lightning, because the instrument had scarcely penetrated the orbit when the tumor was thrown out at once. I then introduced my finger into the orbital cavity, and felt a lively satisfaction in finding that the deep cavity communicated neither with the cranium, nor with the nasal fossae, and that the eye and its accessories were untouched."

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BITE OF THE DIAMOND RATTLESNAKE (CROTALUS ADAMANTEUS).*

By A. Mitchell, M.D.

During my residence on the St. Illa river, in Southwest Georgia, on the 1st of April, 1864, I had occasion to attend a very severe bite of this venomous reptile, in the case of a colored boy, about fifteen years of age.

He was struck, about six inches above the external malleolus, on the outer edge of the gastrocnemius muscle, the leg being bared, and treading directly on the snake, while in the coil. The fangs entered deeply, inflicting a severe wound, when by his convulsive spring he tore them from his leg.

After receiving the bite, he ran about four hundred yards, and fell, in a convulsive tremor. The cries of his mother brought me to his side, in ten minutes. I quickly applied tight ligatures above and below the knee, with firm compression over the popliteal region, and then made three incisions over the region of the wound, nearly an inch in depth, from which flowed freely a dark grumous blood. Large doses of carbonate of ammonia were freely administered, the bleeding encouraged by sponging the wound with warm water; and then the piston-cups were applied and kept on for about forty minutes, until red arterial blood began to flow. My patient then becoming very weak, I withdrew the cups, after taking twenty ounces of blood. The pulse being depressed, with subsultus continuing, I administered two ounces of spiritus frumenti, with a little water, and had him removed to his home, and placed on his bed; the lower cord around the knee was then removed, and likewise the compression at the popliteal region.

Appearance of the patient much changed; great agitation, stupor, tremor, and prostration of the vital powers. Leg and thigh quite swollen; removed the upper ligature, applied pulvis nucis vomicae to the wound, and enveloped the whole limb in a poultice composed of young fern, bruised and saturated with a strong alkaline solution. Pulse 130, small in calibre; great thirst; skin cool;

* There are three species in the family—the Diamond rattlesnake, with the most poisonous virus of the North or South American continent; the Banded rattlesnake, whose virus is not quite so effective, but is destructive of human life; the Ground rattlesnake, of an inferior size, whose virus will not destroy human life, whose bite produces a chronic ailment, with pain and periodical swellings of the limb bitten, affected by transitions of temperature similar to that of a gun-shot wound.
twitching of the muscles quite subsided, with the exception of some trembling of the muscles of the thigh; great pain in the region of the wound and along the course of the nerves of the leg and thigh. Skin harsh and dry; ethereal anodyne administered; carbonate of ammonia continued in smaller doses; had a restless night.

2nd day.—Visited him early in the morning; found him feverish; pulse 120, and contracted; countenance anxious. Stupor continues, accompanied with depression of the nervous energies. Sensation of coldness over the whole body. Calls frequently for water, and rejects all nourishment. Slight twitching of the limb. Took three ounces of blood with the cups, just above the wound. Continued the alkaline poultice, with pulvis nucis vomicae to the wound. Administered half a grain of podophyllin, with five grains of Dover’s powder. Small doses of carbonate of ammonia continued. Ordered chicken broth; he swallowed a half-cupful with difficulty. Visited him in the afternoon. Leg and thigh much swollen to the hip-joint; bathed the limb with a strong decoction of arnica and applied a firm roller, to be kept wet with the same. Visited him at 9 o’clock in the evening. Symptoms much the same, with sanious fluid escaping from the wound and smaller incisions. Fomented the limb with warm soap suds, and dressed with unguentum hydrargyri nitratris.

3rd day.—Visited him at day-break. Had some rest, from the ethereal anodyne; limb much swollen and sensitive to the touch. Scarified the thigh; a yellowish serous fluid escaped from these incisions. Pain quite abated. Continued the roller and bathing with arnica. Constitutional symptoms somewhat improved; stupor less; pulse more regular, slightly tremulous. Nothing passing his bowels from the date of the injury, gave him an active cathartic, which produced a free bilious evacuation. Countenance, towards the close of the day; looks better; the pallor, shrinking of the features and sinking of the eye, improved; notices his dog; took some nourishment, the first he has taken since the bite, except the half cup of chicken broth.

4th day.—Visited him in the morning. General appearances better; constitutional excitement abated, pulse nearly natural, little above the normal standard; swelling of the limb subsiding; perfectly conscious; yellowish serous fluid still oozing from the wounds. Roller and arnica continued with simple dressings; gave him a dose of castor oil. No aggravated symptoms made their appearance afterwards; appetite returned and he relished his food. On the 8th day, I allowed him to sit out-doors. He had a protracted convalescence, his recovery not being complete until the following month of September; a tonic was used composed of tincture nux vomica and equal parts fluid ext. opium, twelve drops three times per day, with occasional use of the pills of podophyllin. This case presented an unusual symptom, as he would swell to such a degree, at stated
periods, that his natural appearance was hardly recognizable; this quickly disappeared under simple treatment. Discharged, perfectly cured, the middle of September, 1864.

It will be seen that the boy was struck upon the bare surface, his trousers being rolled above the knee, the fangs entering deeply with the poisonous virus, into a region where the absorbent vessels are distributed freely. The vital and chemical qualities of the blood and its constituent properties are almost instantaneously annihilated by the active conveyance of this virus through the absorbent system to the vital fluid. This boy was saved by the circumstance of my being on the spot directly after he received the bite. The cups and ligatures are hints from the aboriginal mode of treatment in like cases.

Portland, August 8th, 1873.

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**Contusion of the Hip.**—In a certain proportion of injuries to the hip induced by a fall producing a direct blow, although no signs of fracture can be detected, excruciating pain is experienced, aggravated by motion, and accompanied by a partial loss of power over the movements of the limb, which symptoms may continue for an indefinite period—sometimes even during the remainder of life. In these cases, the inquiry is, *What is the pathological condition giving rise to such a high degree of sensitiveness?* Dr. Charles H. Richmond throws some new light upon this important question, having had the good fortune to obtain a *post-mortem* in the case of a lady seventy-nine years old, who died of cancer seventy days after the receipt of the injury by fall. The only lesion discoverable was disease of the round ligament at its cotyloid extremity, it being softened, discolored and disconnected from the acetabulum. Its femoral extremity was normal, as were also the cartilages of the joint and other ligaments. In this case, acute inflammation of the ligament was probably induced, which rendered it very sensitive to the slightest movement of the joint. The loss of power over the limb may be ascribed, at least in part, to the exquisite sensitiveness.—*New York Medical Journal*, May, 1873.

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**Lying-in-Hospital at Jerusalem.**—This hospital, established by the Baroness B. de Rothschild, is doing excellent work, and proving a precious boon to the poverty-stricken inhabitants of the hallowed city. Dr. Loudon, the director of the institution, lately issued a report, from which we find that 120 females were received at the hospital during the past year; 48 of these were born in Jerusalem, 24 were Russian born, and 19 came from various parts of Turkey. Each inmate on leaving receives a donation of ten francs, and clothing for herself and child. The early period at which marriage is celebrated in Palestine is shown by the fact, that two of the mothers were only fifteen years of age; three had reached sixteen years; five, seventeen years; nine, eighteen years; four, nineteen years; and fifteen had reached their twentieth year.—*Lancet*, July 5, 1873.

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Progress in Medicine.

REPORT ON OTOLOGY.

By J. Orne Green, M.D.

ANATOMY AND PHYSIOLOGY.

(1.) Vulpian.—La corde du tympan, neuf moteur. Gazette Hebdom., No. 3, 1873.
(3.) Zuckerkandl.—Zur Entwicklung des äusseren Gehörorgans. Monatschrift für Ohrenheilkunde, 1873.
(5.) Loewenberg.—Üeber die, nach Durchschneidung der Bogengänge des Ohrlabyrinth, auftretende Bewegungstörungen. Centralblatt für med. Wissenschaften, No. 8, 1873.
(7.) Urbantschitsch.—Üeber die membranösen und fadenförmigen Verbindungen in der Paukenhöhle.

(1.) At the Paris Academy of Sciences, M. Vulpian gave the results of his inquiries into the changes of nerve fibres from division of the chorda tympani. He is satisfied that some fibres from the chorda tympani terminate in the submaxillary gland and some in the tongue. Those fibres to the tongue, he thinks, give the peculiar motor power which the lingual has after section of the hypoglossal. The lingual he regards as a sensory nerve, but is unable to explain why the fibres of the chorda tympani should only acquire a motor power after section of the hypoglossal.

Vulpian found that, after section of the hypoglossal, when the peripheral portion of the nerve was incapable of excitation, movements of the tongue could be caused by irritation of the lingual nerve. The same movements were caused by irritation of the chorda tympani; but, if the chorda tympani is cut some time before experimenting, all these movements of the tongue are absent. The previous results of Vulpian and Philipeaux now require experimental revision by section of the chorda tympani beforehand.

(2.) M. Prévost asserts that, in carnivora and rodents, section of the chorda tympani, in both ears, produces, in the course of six or eight days, degeneration of those terminal fibres of the lingual nerve which lie in the mucous and submucous tissue, but not of those in the papillae. After division on only one side, the nerve fibres of the healthy side showed no degeneration. The chorda tympani was only affected at its lingual extremity, whereas the part remaining in communication with the facial was perfectly healthy. Destruction of the sphenopalatine ganglion or section of the Vidian nerve did not produce degeneration of the chorda tympani; and section of the glosso-pharyngeal nerve did not cause degeneration of the terminal fibres of the lingual.
(3.) The development of the external osseous meatus has been studied by Zuckerkandl. In the five months' foetus, the tympanic ring has two osseous tubercles, and from these, after birth, the meatus develops in one of two ways; either by the growth outwards and sideways of these tubercles till they unite externally, enclosing an opening on the anterior aspect of the meatus, which gradually closes by the development of little bony ridges across it, or else by the growth of the tubercles outwards without this fusing together, so that a triangular opening is left on the external edge of the meatus, which is gradually closed by the approach of the two sides. Both of these forms of openings may persist till even the seventh year. Between the twentieth and thirtieth year, the meatus shows its most complete development, but after that age, by a retrograde process, it may be perforated again. Defects of the meatus from arrests of development, Zuckerkandl considers very rare; he found only two in examining a thousand skulls. The causes of the defects often seen, he thinks, are atrophy of the bone, pressure by the under jaw, and, rarely, persistence of the physiological openings (arrest of development).

(4.) In Böttcher's work, which is a critical review of the literature of the labyrinth, his experiments on the removal of the semicircular canals of frogs are of interest. All such previous operations have been done imperfectly, but he, before cutting through the canal, exposed it perfectly, so that he was sure that no other important parts were injured. In opposition to the results of Flourens and Goltz, no disturbance of equilibrium followed the operation of cutting through the semicircular canals, but was seen immediately after any of the deeper parts were injured. What particular parts were injured in producing this symptom he has not determined, but thinks that he can at least conclude that the semicircular canals belong to the ear and do not form a centre for the retention of the equilibrium of the whole body.

(5.) The object of Löwenberg's experiments was to determine whether the disturbances of movement which followed section of the semicircular canals were due to pain; whether the retention of consciousness was necessary for the production of these movements, and whether they were caused by an irritation or paralysis of nerves. The results of these experiments are given as follows:

1. The disturbances of movement which follow section of the semicircular canals of the ear are the result of this injury, and not of a simultaneous injury of the brain.
2. The vomiting which was observed by Czernak is the result of a simultaneous injury of the cerebellum.
3. The disturbances of movement are the result of irritation, not of paralysis of the membranous canals.
4. The irritation of the canals produces reflex spasmodic movements without involving the consciousness.
5. The transmission of this reflex irritation from the nerves of the membranous canals to the motor nerves takes place through the thalamus.

Löwenberg also investigated Brown-Séquard's assertion that section of the nervus acusticus produces these same disturbances of movement, and found that, although it was true that in section of the auditory nerve from the tympanic cavity these movements were produced, yet dissection afterwards showed that, in every case, the semicircular canals were simultaneously either crushed or broken through.
(6.) Meyer, of Göttingen, asserts that the pointed processes which are occasionally seen on the edge of the helix of the ear in man, and which Darwin considers similar to the points of the ears of apes, therefore regarding them as an indication of a return to the ape-form, really do not consist of processes, but are caused by gaps existing on each side of the apparent process. He cites a case where the helix was wanting, but in its place were three knobs, which represented the rudimentary helix.

(7.) From his anatomical studies, Urbantschitsch agrees with most modern writers that the membranous and thread-like bands running across the tympanum are remnants of the tissue filling the cavity during fetal life rather than pathological products. These bands connect (1) the long vertical process of the incus with the external wall of the tympanum; (2) the long process of the incus with the manubrium of the hammer; (3) the short process of the incus with the posterior wall of the tympanum; (4) the vertical process of the incus with the chorda tympani; (5) the external tympanic wall with the posterior cells of the mastoid; (6) the tensor tympani muscle with the upper wall of the tympanum. In regard to osteophytes, which Hyrtl had observed frequently in animals, Urbantschitsch found that they existed in the human tympanum between the eminentia pyramidalis, the oval and the round windows.

(8.) Prof. Luce has improved Helmholtz's model of the conducting apparatus of the ear by making an opening to represent the round window, and connecting the oval and round windows by a horse-shoe shaped glass tube, the two ends of which are covered with leather and can be placed in contact with the membranes of the windows, thus representing the labyrinth water. Into the upper part of this tube, he inserts another tube, likewise closed at the end with leather. The first tube being filled with water, the waves of sound are conducted through to the round window, and by attaching a König's flame to the upper end of the second tube, the vibrations of the labyrinth water can be demonstrated; or, by attaching an auscultation tube to this end, the vibrations can be heard. The apparatus, which was made for demonstrations to classes, is well adapted to demonstrate the vibration of and method of conduction to the labyrinth of the waves of sound, and also shows the importance of a delicate union of the labyrinth with the tympanic apparatus and the necessity of the tympanic apparatus having the power of free vibration.

Pathology and Therapeutics.

(1.) Wendt.—Polypöse Hypertrophie der Schleimhaut des Mittellohres. Archiv der Heilkunde, 1873.
(2.) Wendt.—Secundäre Veränderungen, besonders der Schleimhaut, im Mittellohr. Archiv der Heilkunde, 1873.
(3.) Wendt.—Ueber das Verhalten der Paukenhöhle beim Foetus und beim Neugeboren. Archiv der Heilkunde, 1873.
PROGRESS IN THE MEDICAL SCIENCES.

(6.) GRUBER.—Ueber die Wahl der Einstichstelle am Trommelfelle bei der Durchschneidung der Schne des Trommelfellspanners. Monatschrift für Ohrenheilk., No. 4, 1873.


(8.) SCHWARTZE and EYSSEL.—Ueber die künstliche Eröffnung des Warzenfortsatzes. Archiv für Ohrenheilk., No. 2, 1873.

(9.) NUSSELMER.—Ueber subjective Farbenempfindungen die durch objective Gehörempfindungen erzeugt werden. Wiener Med. Wochenschrift, Nos. 1, 2, 3, 1873.


(16.) HUGHINGS JACKSON.—Cases illustrative of Cerebral Pathology. Med. Times and Gazette, March 1, 1873.


(1.) Dr. Wendt continues his investigations on the pathology of the ear by the description of the microscopic appearances of the middle ear in a case of mucous catarrh of that cavity. In addition to clear, adhesive mucus in the tubes and tympana, with congestion and swelling of all parts of the mucous membrane lining the cavity, he also found numerous pedunculated (polypoïd) growths on different parts of the membrane. These were variable in size, some visible to the naked eye, and many so microscopic as to be visible only with a power of 300.

The vessels of the tympanum and mastoid cells were distended, and showed in places, both fresh and old hæmorrhages; the swelling was chiefly in the sub-epithelial layer of the connective tissue, and lymph-like cells were visible between the fibrillæ. In some parts of this layer, cysts and cavities were seen, but the most interesting appearances were polypoïd projections all over the surface of the mucous membrane, some attached by a broad base and some by a peduncle, which microscopic examination proved to be outgrowths from the sub-epithelial layer of the membrane.

The tympanic surface of the membrana tympani showed similar prominences. “In the course of the disease, a hypertrophic condition of the mucous membrane and membrana tympani, with the formation of polypoïd projections had been developed—a polypoïd hypertrophy.” In 73 cases where there was a diffuse swelling of the mucous membrane in the tympanum, Wendt found this polypoïd hypertrophy in 29.

(2.) The secondary changes in the mucous-periosteal covering of the tympanum which result from many diseases of the ear and are the
common cause of permanent functional disturbances, are minutely described and figured by Wendt from a case of chronic purulent inflammation of the tympanum, with perforation, in a tubercular subject. Such a thorough examination of all parts of the membrane lining the tympanum has never before appeared, and the pathological changes may be taken as characteristic of a large number of similar cases. The patient was deaf, especially for the last two months, but conversation close to him was understood. The pathological changes were as follows:—On the membrana tympani, destruction of one part, with thickening and rigidity of the remainder; in the tympanum, thickening and rigidity of the mucous membrane throughout, especially in the niches of the labyrinth-windows and on the tympanic covering of the oval window; union of the walls with the membrana tympani and ossicula by recently formed membranes. On the ossicula, thickening and rigidity of their mucous covering; with adhesions between each other and the walls of the cavity and membrana tympani. The osseous portion of the Eustachian tube was much contracted by hypertrophy of the connective tissue of the mucosa; the mucous membrane of the cartilaginous portion was normal; the cartilage itself was calcified.

The microscopic examination of the membrana tympani showed calcification and ossification in the fibrous and external layer, with extensive ulceration of the surface; infiltration of round cells in the layer of mucous membrane, with here and there serous infiltration and the formation of cysts. That of the mucous membrane of the tympanum showed, in the sub-epithelial layer, simple hypertrophy of the connective tissue and the development of cystic cavities; in the periosteal layer, calcification throughout, including the covering of the membrane of the oval window and of the ossicula, and also ossification in some places and the development of osseous tissue in others. In the newly formed membranous adhesions of the tympanum and mastoid, were found myxoma-like and fatty tissues, and in the cartilage around the base of the stump, was a circumscribed development of extra cartilage, the whole being covered with calcified mucous membrane.

These pathological changes, by involving the membrana tympani, the coverings and attachments of the ossicula and the lesser fenestrae, so interfered with the natural mobility of the conducting apparatus as to cause a great degree of deafness.

Wendt regards the deposition of lime-particles in the periosteal layer of the mucous membrane as the most frequent cause of extreme deafness; and the microscopic examination of the mucous membrane he considers absolutely necessary in order to determine the changes which have taken place, and hence would receive with doubt the assertions of strictly circumscribed calcifications and ossifications which have been made without the use of the microscope.

From his clinical experience, he considers it highly probable that the pathological processes described may be the result of any chronic disturbance of nutrition in the lining of the middle ear, whether in the form of serous, mucous or purulent catarrh, or of the so-called dry or hypertrophic catarrh.

(3.) In order to solve the question of the condition of the tympanum in the fetus and new-born child, Wendt has carefully examined the ears of eighteen fetuses and arrived at the following conclusions. In
the fetus which has never respired, the tympanum is filled up by its
gelatinous, swollen mucous membrane; this cushion is the sub-epithelial layer of the lining of the tympanum, composed of mucous and
gelatinous tissue. The disappearance of this mass results not from a
destruction of the tissue or retrograde metamorphosis, but from a
change of the gelatinous tissue into fibrous connective tissue; first the
intercellular fluid diminishing and then the cell-elements retracting to
gether during the first days of life, gradually forming the fibrous tis-sue. A marked diminution of the gelatinous tissue, with the conse-
quent formation of a cavity, follows immediately on strong inspiration,
whether this takes place in or ex utero. This cavity gradually en-
larges as air enters the tympanum through the Eustachian tube and
presses upon the cushion. The condition of the tympanum in the
fetus, Wendt considers of value in a medico-legal view, concluding
that, wherever in a fetus or new-born child the mucous membrane
cushion of the tympanum is found perfect, an energetic inspiration, either intra-uterine or post-partum, cannot have taken place, and
wherever this cushion is found diminished such an inspiration must
have taken place.

[To be concluded.]

A Medical Black List.—An enterprising publisher in Philadelphia
has provided the medical profession in that city with an index ex-
purgatorius, the idea of which is very unique, and its object a very
significant indication of the relations of the public and the Profession
in that city and elsewhere. The publication, which is called the
“Credit Guide,” has just entered upon its second year of publication.
It contains one hundred and forty-four pages, and its purpose is to
publish semi-annually the names of persons who employ physicians
without rendering them any remuneration for their services, though
able (and in many instances abundantly so) to do so, and thus to
furnish the physician with such information for the transaction of his
business as is furnished by another form to the merchants of the
country.

Under no circumstance is it intended to publish the name of any
person in indigent circumstances, and who is consequently unable to
pay.

Without doubt such a list would be a voluminous one, and must
contain many revelations of meanness and avarice, but its object is
impossible of attainment. To make it perfect it might contain an
appendix, in which would be found the names of medical men who
are in the habit of attending any or every comer whether solvent or
not, if only to keep them from consulting a rival practitioner. We
are profoundly cognizant of the fact, that eighty per cent. of the
recipients of so-called medical charity are entirely undeserving of
sympathy, and nearly as great a proportion of the money expended
on them as charity, is misappropriated. But how can it be otherwise,
when medical men who will gladly work without remuneration in any
or every case are legion?—Medical Press and Circular.

The papers collected in this volume have appeared at various times, and have all attracted more or less attention. There is but one among them which can be of interest to the medical profession at large, and we therefore will give our attention to that one alone, though it appeared originally more than three years ago. We refer to the address on Medical Education. Early in the address, the orator assured his hearers that the impression that he often found fault because he looked for too high a standard was a mistaken one; that the trouble was that he put his standard too low. He did not care for elaborate superstructures in education, but for a solid foundation, and he declared that the knowledge of physiology in particular, though not "scanty," was singularly "bookish and unreal." This criticism touches the most difficult point in the problem of advancing medical education. We conceive that there is much misunderstanding as to what this word "advancing" means; we hold that it does not imply the acquisition of a thousand and one refinements suited only to the scientist or specialist, and agree most heartily with Huxley that "any one who adds to medical education one iota or tittle beyond what is absolutely necessary is guilty of a very grave offence." Here, however, comes in the very important question what is "absolutely necessary?" which entails the further question, "what kind of men should the medical schools turn out?" If we are content to send forth men whose merits are purely negative, who have not been found disgracefully deficient in more than half of the required studies, who shall transmit unchanged to their children the routine practice which they have pursued without any shocking bad results, it is evident that a great deal is not "absolutely necessary." A great deal, however, is requisite if, as Huxley apparently desires, a graduate is to be thoroughly grounded in the elements of each branch. He speaks not only of physiology as being requisite, but of chemistry and physics as applied to it. He plainly does not mean by this that the student should be familiar with the fine results of such applications, but that he should know the elements of these auxiliary sciences very well, and that he should have acquired a power of drawing conclusions, so that he may be able to follow out any particular line of thought, and ultimately to practise by reason and not by routine. It is a play of words for Huxley to say after this that his standard is low, for what he takes from the medical course he puts into the preliminary one. He makes a good move in wishing to discard botany, geology and comparative anatomy from the regular course, in which, we believe, they hold a place in most English schools. He would also do away with materia medica, in which he does not include therapeutics, saying that students might as well be made to study cutlery because they are to use knives. The address should be read carefully by all who are interested in the subject; it is one of the author's happiest efforts; many sentences would serve as headings for deep disquisitions, as for instance: "What the student wants in a professor is a man who shall stand between him and the infinite diversity
and variety of human knowledge, and who shall gather all that togeth-er and extract from it that which is capable of being assimilated by the mind."

**EDITORIAL.**

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, OCTOBER 2, 1873.

**Auguste Nelaton,** whose career has lately come to a close in his 66th year, was one of the most distinguished French surgeons of his time, and, indeed, he may be said to have been quite at the head of his profession in Paris during the last twenty years. He was born in 1807, was a pupil of the illustrious Dupuytren, and took his degree in 1836. After a series of successes in competitive examinations, which resulted in his being appointed surgeon of the Paris hospitals and assist-ant professor of the Faculty of Medicine, he reached, in 1851, the culminating point of a French surgeon's ambition by being appointed professor of clinical surgery. He occupied this post with great dis-tinction for seventeen years; resigning in 1867, he devoted the re-mainder of his life to a most extensive and lucrative practice as a con-sulting and operating surgeon.

He was already very honorably known in the profession, when he was brought into a blaze of public celebrity, attended by a great in-crease of practice, by his successful use of Charrière's porcelain tipped probe in the case of Garibaldi; he also won additional fame and the gratitude of his sovereign by his successful management of the case of the Prince Imperial. Besides receiving all the honors accessible to a member of the medical profession, he was created Senator by Napoleon III. in 1868; this high reward for his services to his profes-sion and to his country was without precedent, and is worthy of notice as marking a progress in the degree of esteem with which the medical profession is regarded in Europe. During the last two years of his life, he suffered from organic disease of the heart, which was terminat-ed by death on the 20th of September, ult.

His writings were not very numerous, and were all published during the earlier years of his career. His chief publications embraced the fol-lowing subjects:—Tubercular Disease of the Bones (1836), Tumors of the Breast (1839), Operations for Cataract (1850). His most volumi-nous contribution to medical literature was his treatise on surgery (Eléments de Pathologie Chirurgicale, in five volumes, 1844–1860), which became one of the text-books of the French medical student; only the first three volumes were written by Nélaton, the last two be-ing due to Jamain. A new edition, begun in 1866 by Jamain, and Vol. LXXXIX. No. 14b
carried on by Dr. Péan, a pupil of Nélaton's, is at present in slow course of publication, but it can hardly be said to be brought up to the present standard of surgical theory and practice.

Nélaton's great reputation was not based so much on his literary contributions to science as on his clinical lessons and on his success as a practitioner. As a professor of clinical surgery, he was eminently successful; his wards were thronged with pupils, and his lecture room was always too small to contain the numbers of pupils of all nations who came to hear him. He was not what is called a brilliant man, as a speaker, or as an operator, but his simple, earnest manner, his careful judgment, his thorough diagnosis, and his patient and sure way of operating, were such as to deeply impress his audience, and to show them that the welfare of the patient and the teaching of sound, practical surgery were his objects, rather than any display of extraordinary eloquence or manual skill.

In his lectures, his originality was shown in connection with several important points in the theory and practice of surgery; among which may be mentioned retro-uterine haematocele, to which he first called attention in France; naso-pharyngeal polypus, to which he devoted several lessons, and for the cure of which singular and grave affection he devised several modes of treatment. He also gave his attention to lithotomy, and instituted the operation to which he gave the new name of "la taille prérectale," though it is in reality, as Sir Henry Thompson observes, hardly more than a carefully dissected bilateral operation. Nélaton's clinical lectures have not been published collectively in his own country, but an American translation was published in Philadelphia in 1855, by Dr. W. F. Atlee; the volume contains notes of lectures given in 1851, 1852 and 1853, and embraces a great variety of subjects.

With Nélaton has disappeared one of the last of a group of distinguished and successful practitioners who kept up the traditions of French surgery, as established by Dupuytren, Lisfranc, Boyer, Roux, Blandin and Chopart, and continued by Velpeau, Jobert de Lamballe, Malgaigne, Chassaingue and others of the same stamp. In his own country, among the younger members of the profession, his example and his teachings were most useful, and as a consulting surgeon he will be missed when the careful judgment of a wise and experienced practitioner is needed; but by the medical world at large his loss will now be little felt, for his scientific career may be said to have ended when he resigned his chair at the Faculty of Medicine, and with it the lead he was taking in French surgery.
CORRESPONDENCE.

We publish in this number the translation (kindly furnished by Miss Dimmock) of a letter from Prof. Frey, of Zurich, and one from Dr. J. R. Chadwick, both bearing on the recall by government of the Russian female medical students from Zurich. Prof. Frey complains that a brief mention which we made of the matter some time since contains an error and an injustice, because we implied that immorality was the cause of the recall. Wishing to do justice to all parties, and to obtain all possible light on the subject, we showed this letter to Dr. Chadwick, who had written from abroad a letter which was published in this Journal on Feb. 6th ult. on this question, and asked him to give us the benefit of any information he might possess. Dr. Chadwick has complied with this request in so full and impartial a manner that further comment would be superfluous. We may remark, however, that the spectacle of girls taking part in socialistic meetings, which was one of the mildest charges against them, strikes us as very unpleasant to contemplate.

Pathology of Mumps.—The Medical Times and Gazette, June 21, 1873, states that M. Bouchut has addressed a brief communication to the Academy of Sciences on this subject. Regarded to the present time, he says, as a fluxion of unknown nature in children, or as an inflammation of the parotid gland in adults, mumps, according to his researches, really arise from a retention of saliva caused by a catarrhal inflammation of the parotid duct. Under the influence of this catarrh of the excretory canal, a temporary obstruction is caused, which retains the saliva. In children seized with this affection while in a good state of health, the disease is not a serious one, as suppuration does not take place. On the other hand, in subjects of septicaemia or "bacteræmia" mumps is a very grave affection, as suppuration always takes place, and death often results. There is only one way of averting this peril, which consists in making numerous small incisions in the substance of the parotid, before the pus, which is infiltrated into its substance, has time to collect together.

Correspondence.

University of Zurich, Aug. 10, 1873.

Messrs. Editors,—Your Journal of July 10th gives the following statement:—

"We are sorry to hear that the female students at Zürich, of whom we have had such glowing accounts, are too immoral even for Russia, who has recalled her daughters to be redeemed by home influences."

This statement contains an error and an injustice; an error, inasmuch as it is not on account of immorality that the Russian government forbids attendance upon the lectures at Zürich, but on account of the revolutionary and socialistic tendencies of some of the female students;

These latter were in many cases too young to bear the change from the
absolute form of government of their own country to the freedom of a republic without feeling the intoxication of liberty. In the eyes of the Russian government, it is a crime even to visit a political meeting. Many of these Russian women have, however, by their great diligence and honorable conduct in social relations, won the most general esteem, and proved themselves worthy successors of the pioneers from England and America. The minds of the others were occupied more with political ideas than with the study of medicine.

The rules for matriculation of foreigners having been in some respects too liberal, some of the women who first studied here demanded, some years ago, a stricter examination for matriculation, and this in the interest of women themselves. This measure has now been adopted.

Of the immorality of the Russian students, no one in Zürich knows anything whatever, and the charge is an unjust and wicked pretence of the Russian government and of the numerous spies which it keeps here.

Only two Russian women have obtained here the degree of Doctor of Medicine, and these two are most honorable women. The others were called away by the decree of the Russian government before they could finish their course of study.

Hoping that I have said enough to prove this decree an injustice, I remain Yours very respectfully,

H. Frey,
Professor of Microscopical Anatomy and Embryology.

MESSRS. EDITORS,—Some months since, I wrote you from Zürich an account of the position taken by the University of that city with reference to the study of medicine by women. I described briefly the rise and progress of the movement which led to the admission of women to the general exercises of the University, and more especially to the medical lecture rooms and clinics. I gave utterance to no expression of personal feeling in the matter, yet the general tenor of my letter was favorable to the female students. This I could not have changed, even had I wished so to do, without having most unjustifiably manipulated and distorted the facts that came to my observation. The small cloud, which at that time was just discernible on the horizon, and to which I alluded when I stated that, "with the increase in quantity (of female medical students) there had been a depreciation in quality," has grown and spread until the whole sky is now overcast.

The immature and plastic minds of the young Russians, who have formed so great a majority of the female medical students at the University of Zürich, have fallen a ready prey to the wiles and machinations of political adventurers, so that the steady and praiseworthy devotion to study which characterized the pioneers in that field has been supplanted by political agitation, and—what is worse—in some instances by an indulgence in the delusive fascinations of free love.

The Pall Mall Gazette is my authority for the statement that the Russian government has levelled a blow at the bechigoned heads of these medical students by announcing to "all the Russian women who attend the lectures at the University and Polytechnic School of Zürich, that such of them as shall continue to attend the above lectures after the first of January, 1874, will not be admitted, on their return to Russia, to any examination, educational establishment or appointment of any kind under the control of the government."

This action is attributed by the official organs to the "unfavorable reports that have reached the government relative to the conduct of these young women. . . . A 'Slavonic Democrat-Socialist Society,' a 'Slavonic Central Revolutionary Committee,' and a Slavonic and Russian Section of the Inter-

* The meetings of the International Society of working-people were regularly attended by some Russian students.
† The number of Russians was 108, and of those from other countries only 20 during the last semester.
national Society have been formed at Zürich, and they number several of the young Russians of both sexes among their numbers. In the Russian library, to which certain editors send their periodicals and newspapers gratis, lectures of a very revolutionary character are delivered. It has become a daily occupation of young Russian girls to attend the meetings of workingmen; political agitation absorbs their youthful and inexperienced minds and leads them into wrong courses. The young women, who have thus been dragged into politics, are entirely under the influence of the leaders of the emigration, and have become their obedient instruments. Some of them go two or three times a year to Russia and back again, taking with them incendiary letters and proclamations. . . . Others allow themselves to be deluded by the communistic theories of free love, and, under the protection of a fictitious marriage, act in utter forgetfulness of all the fundamental principles of morality and decorum."

The document published by the Russian government goes on to justify its action as follows:—"It must not be forgotten that these women will sooner or later come back to Russia, there to become wives, mothers and teachers; and it is the duty of the Russian government to prevent them, as far as possible, from corrupting the youth of the country. To those young women who really wish to obtain a scientific education, ample opportunities are offered by the higher schools of Russia itself, to which students of both sexes are admitted; but there can be no doubt that Russian young women, who go to Zürich, are actuated by different motives than a love of science."

These are the charges made against the Russian female students at Zürich by the government of their country, and the threats which follow are, undoubtedly, elicited solely by the political agitation to which the women have lent themselves, and by means of which their instigators were furthering their schemes.

It is unquestionably an error, as maintained by Prof. Frey in the letter which you showed me yesterday, to suppose that the Russian government was instigated to promulgate the decree above alluded to by solicitude for the morals and the social influence of its few absent daughters, but that there is some truth in the allegation I must believe, because rumors to the same effect were recounted to me during my visit to Zürich in the summer of 1872. Stories about "irregularities"—as New York brokers would express it—in the private life of these young ladies were circulating in Zürich among the younger members of our profession a year ago, though I can easily understand that they did not reach the ears of a person who occupies so eminent a position as Prof. Frey."

That a change from the quiet home life of a Russian town or village to one of constant intercourse with young men in the study of subjects, where the attention must inevitably have been often directed to the physical and functional differences of the sexes, should have disturbed the moral equilibrium of a few among these girls is but natural, and, in this case, would seem not improbable, since their susceptibility to foreign influences is evinced by the easy and rapid conquest made of them by political agitators. All interested in watching the experiment, which has been tried in Zürich, will, however, give due weight to Prof. Frey's denial of this accusation, and will believe that the charge of immorality is, to say the least, grossly exaggerated.

In this connection, I must avail myself of the opportunity of pointing out the great injustice done these women, who are struggling for medical education, by establishing for them a different and much higher standard of excellence, both in studies and deportment, than for male students. Let it be remembered by those who are commenting upon the success and progress of any female student that she can only be fairly compared with the average male student. It seems to be expected that every woman, who has qualified

* A correspondent of the Cologne Gazette asserts that upwards of one half of the Russian women students at Zürich live disreputably, and that many of the Swiss families in town have consequently refused to receive them in their houses.—Medical Press and Circular.
herself to practise medicine, must make her mark in the world—be a success, as the term is—and if she falls short of this, her failure is made to reflect unduly upon the abstract question of the qualifications of women to become physicians. I would ask, in reply, how many of the hundreds of young men who obtain medical degrees in the course of a year are ever heard of again?

In morals, the same custom prevails, though here it is but an echo of the judgment pronounced by society throughout all ages.

The interference of the Russian government has driven all but two of its countrywomen from Zürich, while those from other lands remain, so that we may still look to that city for a solution of the vexed problem of "mixed classes," and trust that the prejudice against the question at issue may not be again excited owing to extraneous causes.

I am very truly yours, 

JAMES R. CHADWICK, M.D.

123 Boylston St., Sept. 14, 1873.

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**Obituary.**

DR. THOMAS MILLER, of Washington, D. C., died suddenly at his residence in that city on Sept. 20th. He was the son of Major Miller, who came with his family to the District of Columbia during the administration of President Madison, and for years was attached to the Navy Department. He graduated from the University of Pennsylvania in 1829. Returning to Washington, he commenced the practice of his profession, in which he has always borne a prominent part. In his earlier days, he was a contributor to this JOURNAL.

PROF. DIXI CROSBY, M.D., LL.D., of Dartmouth College, Hanover, N. H., died on Friday, Sept. 26th, at the age of 73 years. Professor Crosby represented Hanover in the State Legislature, and was chosen State Railroad Commissioner in 1862. He was a Freemason and was a member of the Royal Arch Chapter at Harland, Vt. His surviving brothers are Dr. Josiah Crosby, of Manchester, N. H., Judge Nathan Crosby, of Lowell, and Professor Alpheus Crosby, of Salem. He leaves two sons, Dr. A. B. Crosby, a professor of surgery at Hanover and at the Medical College at Brooklyn, N. Y., and Dr. A. Crosby, a well-known physician in Concord, N. H.

At the regular monthly meeting of the Berkshire District Medical Society, held at Pittsfield, Sept. 24, 1873, the following resolutions were unanimously passed:—

Whereas, The Rev. John Todd, D.D., an honorary member of this Society, has been removed by death,

Resolved, That we bow with submission to the dealings of Him who doeth all things well, in whose hand our breath is, and whose are all our ways.

Resolved, That in the death of the Rev. Dr. Todd we recognize the loss of one whose associations with this Society were a source of intellectual improvement and high social enjoyment, and that his high office and good words will ever be held by us in grateful remembrance.

Resolved, That in his life of great labor in the pulpit, while battling with disease that would have crippled the energies of ordinary men, and in the great work which he accomplished by his writings, known over the civilized world, Dr. Todd deserved to be ranked among the most distinguished men of the present generation.

Resolved, That we tender his people and his family our deep sympathy in their great bereavement.

Resolved, That these resolutions be entered in the records of this Society, and that a copy be presented to his family, and published in the County papers, Springfield Republican and Boston Medical and Surgical Journal.
ENDOWMENT OF A MEDICAL COLLEGE.—James Johnston, of Indiana¬polis, has endowed the Medical College of the Northwestern Christian University (Indiana) with half a million dollars, and a site for its location.—The Clinic.

The yellow fever continues severe at Shreveport; up to Friday last there had been 440 deaths. The alarm had not subsided in Memphis, and the last reports state that the disease had shown itself in Alabama. Substantial aid has already been sent to the former place from the north, and more is needed.

Dr. Edward Wigglesworth has given his large collection of models of diseases of the skin and of syphilis, made by Baretta of Paris, to the medical school of Harvard University. The models are exquisite imitations of disease. This generous and very valuable gift furnishes the departments of dermatology and syphilis with additional means of illustration, such as no other school in the country possesses.

The collection has been placed in the museum at the medical college, where it may be seen by physicians.

A remarkable instance of devotion to science occurred in the case of Dr. Otto Obermeier, who died in Berlin, August 29th, from cholera. For several months he had been engaged in examinations of blood in typhus fever, and later, in researches on cholera. He was in the habit of keeping in his bed-room specimens taken from patients who died of cholera and also portions of their excreta. When aware of his condition he made several microscopic examinations of his own blood, although death followed in a few hours.

TREATMENT OF ASTHMA.—Dr. Ad. d'Evot (R. de Thèrap.) gives some directions as to the remedies to be used in asthma. Twelve grammes of flowers of sulphur, with one gramme of tartarized antimony, are mixed with honey and powdered gum, and divided into sixty pills. Three of these represent the dose of Debreyne's powders, and one pill is given morning and evening.

Morning and evening a sheet of nitre paper may be burned in the bedroom or alcove of the patient. The paper may be prepared of white filter paper, dipped in a solution of nitre in the proportion of a drachm to an ounce.—The Doctor.

DISINFECTANTS.—In the Zeitschrift des Oester-Apothek.-Vereines, February 10, 1873, Albert Eckstein published an account of his attempts to disinfect a privy which was used daily by one hundred persons, and the results are so interesting that they are here transcribed:—

1. Two pounds of sulphate of iron in solution. After from two to three hours all bad smell had disappeared, but in twelve hours all the influence of the disinfectant was lost.
2. Sulphate of copper in solution, the same.
3. Two pounds of sulphate of iron in crystals; their effects lasted two days.
4. Sulphate of copper, the same.
5. Sulphurous acid in solution rapidly lost its effect, and was exceedingly irritating to the respiratory organs.
6. Two pounds of impure carbolic acid filled the house for two days with such a disagreeable smell that it was impossible to tell whether the original odor was destroyed or covered up.
7. Two pounds of sulphate of iron in a parchment sack exerted a disinfecting influence for three full days, and when the parchment sack was drawn up it contained only some dirty, odorless fluid.
8. Two pounds of the best chloride of calcium, in the parchment sack, disinfected the privy for, at least, nine days.
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At the first meeting of the Society for Medical Observation, on Oct. 6th, Dr. J. G. Blake will read a paper on "Illustrations of Conservative Surgery."

A MOVE IN THE RIGHT DIRECTION.—At a meeting of the California Medical Society, the following resolution was introduced by Dr. Ira Oatman, of Sacramento:

"Resolved. That it is the duty of, and we hereby recommend to, the Legislature of California to pass a law making it a misdemeanor for any person, for any purpose whatever, who is not a graduate of some institution of learning authorized by law to confer the degree of 'Doctor of Medicine,' who shall place before or after his or her name, in any manuscript, label, wrapper, card, hand-bill, circular, newspaper, pamphlet, magazine, book, or any advertisement, the word 'Doctor' or the abbreviation M.D. or Dr., or any others signifying directly or constructively that the person is a graduate of such an institution, or who shall authorize or sanction the same by others in his or her interests; and that any person found guilty of such misdemeanor shall be punished by a fine of not less than $50 dollars, or imprisonment for not less than 60 years, or by both such fine and imprisonment."—Western Lancet.

The Suffolk District Medical Society opened the campaign on Saturday last with a very interesting meeting. Dr. Chadwick showed a curious pedunculated tumor, weighing four ounces, which he had removed from the outer surface of one of the labia majora of a woman fifty-four years old. Dr. C. D. Homans spoke briefly of two cases of strangulated hernia in which he had used the pneumatic aspirator. In one of two days' standing, he had met with perfect success; in the other, no fluid was obtained, and the knife was resorted to with good results. He had also punctured the bladder above the pubes with the aspirator, in three cases of retention of urine, with most gratifying success. Dr. John P. Reynolds spoke of a statement he had seen of the advantage gained by puncturing the middle of the placenta, when apparently adherent, so as to admit air below it. This led to a somewhat extended discussion of physics of the placenta and uterus, followed by a more practical one on certain points in the management of labor. Several gentlemen dwelt upon the advantage of not hastening to complete the delivery after the birth of the head, and Dr. Reynolds spoke strongly of the absolute quiet and absence of friends, light, and even of the child, which should be enforced directly after delivery. Dr. Ayer reported a case of supposed mediastinal abscess breaking into the lung. After some incidental business, the society adjourned to the usual supper, having begun the season most auspiciously.

Mortality in Massachusetts.—Deaths in sixteen Cities and Towns for the week ending September 29, 1873.


Premarital Diseases.—Cholera infantum, 68—consumption, 34—typhoid fever, 27—dysentery and diarrhea 19—scarlet fever, 14.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

Deaths in Boston for the week ending Saturday, Sept. 27th, 1873. Males, 82; females, 69. Accidental, 6—applesy, 1—inflammation of the bowels, 2—bronchitis, 1—disease of the brain, 5—cyanosis, 1—cancer, 4—cerebro-spinal meningitis, 2—cholera infantum, 29—consumption, 23—convulsions, 2—croup, 1—lefty, 1—diarrhea, 5—dropsy, 1—dropsy of the brain, 1—dysentery, 3—diphtheria, 3—epilepsy, 1—scarlet fever, 5—typhoid fever, 42—diabetes, 1—gastroenteritis, 1—disease of the heart, 2—intemperance, 1—disease of the liver, 3—congestion of lungs, 1—d Megalitis of the lungs, 1—paralysis, 2—disease of the brain, 1—peritonitis, 1—puerperal disease, 3—suicide, 1—disease of the spine, 1—tabes mesenterica, 1—teething, 1—uterine cellulitis, 1—ulcer of the stomach, 1—unknown, 1.

Under 5 years of age, 78—between 5 and 20 years, 12—between 20 and 40 years, 36—between 40 and 60 years, 16—over 60 years, 9. Born in the United States, 114—Ireland, 25—other places, 12.
REST.

By Irenæus P. Davis, M.D., Lenox.

Read before the Berkshire District Medical Society, May 28th, 1873.

Rest is re-creation; that is, reproduction of power, to be stored up in the tissues as in reservoirs. Examples of reserved forces, throughout the animal economy and even in the vegetable world, seem to indicate a complete system of stored power, to be reproduced as fast as consumed, and the supply, so long as the conditions of health are observed, to be in exact ratio to the demand.

Weariness is a sensation of power lost. It differs from simple weakness, which is a want of power. Therefore weakness is an element of weariness, the latter never existing without the former, while the former may exist without the latter. Common parlance recognizes this difference. We speak of weariness as a feeling of being worn out. This is literally correct. In a normal condition of the system, the processes of assimilation and disassimilation are perfectly antagonized, the one by the other. These processes are necessary to the vitality of the tissues. Life is a continual death, a continual wasting of material, and the supply must be maintained, otherwise life ceases as a fire ceases to burn when the fuel is exhausted. Life is action, therefore an unusual degree of activity involves an intense form of life, an extraordinary destruction of tissue. This destroys the balance between assimilation and disassimilation, and, so long as this action continues, the two operations will be disproportionate, reproduction not keeping pace with the waste. An organ in constant exercise is thus actually wearing out.

It is true that the demand, in a measure, regulates the supply, that the greater the consumption the greater is the production of new material. Here we find the law of compensation illustrated. But this change requires time, and, meanwhile, destruction is going on in greater ratio than reparation; moreover, as the supply is increased, the action becomes more intense, consequently consumption is ever in advance of production; hence we experience weariness, the sensory nerves convey intelligence of the exhausted condition of organs that have been long in action, and warn us to give them time to recuperate. If we cannot or do not heed the intimation, the
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destructive process goes on till the organs are no longer capable of performing their functions, and, perhaps, till the power of assimilation is forever lost.

Were the waste and repair of tissue always equal during activity of organs, their action might be continued indefinitely; and this is indeed true of some. The operations performed by the organs concerned in circulation and respiration and some of the organs of secretion and excretion, with the nerves controlling them, are frequently cited as instances of continual action; but the heart, perhaps most often referred to as illustrative of this condition, does not act without intermission, and the same is doubtless true of most of the other organs mentioned. The intermission is brief, but so is the action, and the relation of waste to repair is so adjusted that the brief period of rest is just sufficient to preserve the equilibrium between the two processes. Probably the best example in life, of incessant activity, is afforded by the nerves of hearing. For them, labor is the normal condition, and in them the opposing forces of assimilation and disassimilation are so perfectly balanced that in a state of health they require no rest. Even in sleep, the nerves of hearing remain on the alert, taking cognizance of every sound, and discriminating one sound from another with as unerring accuracy as during waking hours. That this is a fact is beyond doubt. Although, during profound sleep, the mind is unconscious of sounds, yet it must be that they are appreciated by the organs of hearing, for sound is a common means of rousing persons from sleep. Now, in order to dissipate sleep, it is necessary that some cause shall operate, the effect of which will be appreciated during the continuance of sleep; and, as the impression of sound is received only through the medium of the auditory nerves, did they cease to exercise their power during sleep, no sound, however loud, could possibly wake a sleeper. Again, we find that persons, having fallen asleep in the midst of continuous noise, always wake on the sudden cessation of the sound; showing that not only are sounds occasionally heard in sleep, but they are always observed when present. We also observe that the mother wakes at the first cry of the child, and the physician at the ringing of the office bell, while the same persons, in many instances, sleep uninterruptedly through the severest thunder storms; and those who are acquainted with the business of telegraphing say that in offices where a dozen machines are in use, each with a separate attendant, it is common for a night operator to sleep until his own machine calls, when he instantly springs forward to receive the message; though he may be until that moment sleeping soundly and on the opposite side of the room, and though half of the machines in the room be ticking at the same time and almost constantly changing; some stopping and others commencing, while all are so nearly alike in sound that a stranger has difficulty to distinguish one from another even while awake. Therefore
we know that the nerves of hearing distinguish accurately, during sleep, between different sounds. It follows, then, that persons, living in the neighborhood of waterfalls or other sources of incessant sound, can have no rest for the organs of hearing. Nor is such rest necessary. As has been before remarked, the arrangement is such that the action of hearing can go indefinitely without fatigue. The sense of hearing is beyond our control. So long as sound is present we must receive it. Even the action of the heart is less removed from the influence of volition than that of the organs of hearing, while the operations of digestion are in a much greater degree controlled by the will; and, other things being equal, just in proportion to the susceptibility of voluntary control is the amount of rest required. This law seems to be universal in its application to the human system, and its utility is at once apparent. The voluntary muscles, being more under the control of the will than any other parts, require and receive a greater amount of rest than any other organs.

All actions are duplex, involving two powers; the power of originating an impulse, and the power of responding to that impulse. Thus, in the action of a muscle, the impulse must originate in a nerve centre, and the muscle, in obedience to that impulse communicated by the nerve, contracts. We have, then, two organs, entirely distinct, concerned in a single action; and, supposing these organs to be equally under the control of the will, they must be affected in the same degree by a continuance of the action. All voluntary movements originating in cerebral nerve-centres wholly subject to volition, brain and muscle suffer equally from their excess. In reflex movements, the motor impulse is developed in a spinal center, over which the will has no influence, and is thence conveyed to the muscles in the same manner as in the former case; but the spinal nerve centres, being in their action independent of volition, work without impairing their power to labor, and therefore their force is constantly generated so long as the peculiar irritation is continued which calls their function into exercise. On the other hand, the muscles are affected in the same manner as if their action originated in the brain; for the conservative provision, by which organs not subject to voluntary control are capable of unremitting activity, has no bearing on the action of voluntary muscles, even when such action is in its origin separated from the operation of the will. The object of the said provision is, evidently, to secure the equilibrium of vitality to those organs that, in their ordinary operation, are incapable of securing it through the medium of the will. The law is, therefore, a fixed one, in its relations to the various organs, being rather associated with the mode of action than dependent upon it. Moreover, the action of a voluntary muscle, in itself considered, is always the same except in intensity, whatever the exciting cause. A muscle is capable of contracting, in response to an impulse re-
ceived from one of three sources; from the centre of intelligent nerve power, from the centre of unintelligent or reflex nerve power, and from electricity, which has been shown to be entirely distinct from nerve power; and, from whichever of these sources the impulse is received, it is responded to in the same manner, and with precisely similar results to the muscle, the degree of the action and of the results being regulated by the strength of the impulse and the capacity of the muscle for receiving impulses. In continued reflex action, then, the muscles suffer exactly as in the same degree of voluntary action, while the spinal nerve-centres remain uninjured. Therefore, so long as irritation provocative of reflex action is present, and the muscles have not undergone degenerative change sufficient to destroy their function, the nerves impel them to the exercise of that function. On this account, greater exhaustion is frequently produced by reflex than by voluntary motion.

The manifestations of the exhausted condition consequent on neglect of rest are somewhat varied. When the exhaustion is slight, a sensation of weariness, with temporarily diminished power, are the immediate results, while the law of supply and demand, before noted, provides that, if action be now suspended for a time, nutrition is increased and the power for subsequent action is intensified. When exhaustion is complete, loss of power and atrophy of course result. If exhaustion, being very great, is yet not entire, a disordered and convulsive action ensues, seemingly the final effort of life for mastery: for it is a universal law of animated nature, that, as death approaches, the vital energies are concentrated in one mighty effort for the continuance of life. Instances of the operation of this law are seen among vegetables. The dying tree puts forth unseasonable blossoms, or gives other indications of that struggle without which life is not yielded. The peculiar relation of one organ to another, known as sympathy, and supposed to depend on some sort of nervous connection, has, although its operation is not understood, certain well marked and definite results. For example, traumatic inflammation occurs in one eye, and, without contagion, without direct injury, without any known cause, the other eye becomes inflamed also, and we say the extension of the disease is sympathetic; or, one organ being diseased, sympathetic pain is felt in another organ, entirely distinct and to all appearance healthy. A similar phenomenon often occurs after undue action of one part. Other parts, not concerned in the action, sympathize in the exhaustion following it, and require rest. That this sympathetic exhaustion is not dependent on contiguity of parts is proved by the fact that it occurs in those that are remote from the seat of action, as when a fatiguing walk is followed by neuralgic pain in the face; and that it is not due to the general drain on the system caused by the wearing out of a part, by the fact that a very great degree of sympathetic exhaustion frequently follows the exercise of a very small organ, as, for example, the eye.
Rest may be absolute or relative. Absolute rest consists in a cessation from labor. Relative rest is a change of labor, the change being not in degree, but in kind. Examples of the former are afforded by voluntary muscles, nerves, and all organs requiring rest, whose office is to perform a single act. Examples of the latter mode of rest are furnished by the brain, which is capable of performing actions differing in their nature. The muscle simply contracts, the nerve conveys impressions only, while the brain receives impressions, converts them into impulses, originates ideas, forms the ideas into thoughts, clothes the thoughts with language, and gives expression to the language. All of these are different forms of labor, the capacity for each depending on a reserve power distinct from the power which limits each of the others. Therefore, one action of the brain being suspended, the reserve power by which it is maintained may be reproduced even while another action of the same organ is going on. Thus the brain receives rest relative to one mode of labor even while it continues to labor in another direction. But this change of labor is not sufficient to maintain the equilibrium of health, and therefore the brain receives also a certain amount of absolute rest. The condition of sleep is to the mind what relaxation is to the muscles, simple inaction. During sleep the intelligent faculties cease to operate, though the organs of sense retain their power to receive impressions, and reflex action continues; so that, though external impressions are constantly being received, no intelligent action is taken thereon. Too little sleep produces in the brain the same results that follow excessive action in other organs, viz., exhaustion, irritability, and disordered action. On the other hand, too much sleep produces the legitimate effect of long-continued inaction, inertia. Inaction ceases to be rest when it passes beyond the point necessary for recuperation. After this point is reached, if the force generated is not consumed, the vascularity of the neglected organ soon becomes permanently diminished, nutrition is impaired, and atrophy ensues.

The relation of rest to disease is exceedingly interesting, and vitally important, but time forbids more than an allusion to it on the present occasion. As a curative measure, rest is of the greatest consequence in the management of all inflammatory diseases and of nearly all others. In importance, and in universal application, it stands far ahead of all other therapeutic agents. "If he sleep, he shall do well," is a maxim which has received the sanction of all schools of medicine, in all ages, and in every land.

The Medical International Congress of Vienna took place from the 2nd to the 10th of Sept. The most liberal arrangements were made as regarded foreign visitors. There were six principal questions to be discussed, (1) Vaccination; (2) syphilis and prostitution; (3) cholera and quarantines; (4) a universal pharmacopeia; (5) freedom of practice in all countries for qualified men; (6) hygiene of large towns.
Progress in Medicine.

REPORT ON OTOTOLOGY.

By J. Orne Green, M.D.

[Concluded from p. 339.]

(4.) Politzer has studied the pathological changes in the vessels of the tympanum in cases of chronic purulent inflammation with perforation, and finds that the arteries are few in number and not enlarged, but the veins are seen in large numbers, some enlarged to many times their natural size, and occasional bulgings. From the large number of these veins, which often form a thick network, he concludes that new vessels are formed during the disease. He also demonstrates not only the existence of lymph-vessels in the tympanic mucous membrane, but found these vessels enlarged into irregular cavities, with sharp outlines, and lined with epithelium, normal in some places, and in others filled with molecules and fat globules.

(5.) Gruber, considering that abnormal tension of the membrana tympani may be the cause of disturbances of hearing, not only in itself but also in its action on the position of the ossicula, proposes to relieve this by making several incisions through the membrane, and, by after-treatment, to prevent the membrane from again recovering its great tension. The operation is proposed in those cases in which the tension cannot be relieved by the air-douche, or in which the air-douche is liable to produce relaxation of portions of the membrane. For the diagnosis of abnormal tension, he depends on the curvature of the membrane, which can be decided from the folds of the membrane and from the position of the manubrium. Siegle's speculum he finds of value in establishing the degree of tension, and also the auscultatory sounds with the air-douche. The portions of the membrane to be incised, and the length of the incisions, are not given, apparently because he considers these points matters of indifference; the number of the incisions is generally from two to four. The operation is not very painful, the inflammatory reaction slight, and the results he praises highly. The clinical histories of several cases, which were very much benefited by the operation, are given.

(6.) Gruber has examined the course of the tensor tympani muscle on a large number of preparations, in its relation to the operation of tenotomy, and finds that the end of the osseous canal, from which the muscle passes out into the tympanum, varies somewhat in its position, but generally lies behind the line of the manubrium; "in the majority of temporal bones examined, the semicanal of the tensor tympani ended nearly at the middle of the upper edge of the oval window; in some cases at the posterior edge of the window, and only in a few cases in front of the middle of the window." From this it is evident that, in order to reach the hammer, "the tendon must pass in a downward, forward and outward direction." The position of the manubrium, he considers, will indicate the course of the muscle, and decide on the best point to perforate the membrana tympani for tenotomy. If the manubrium is drawn directly inwards, the course of the muscle is inwards; if the manubrium is drawn both backwards and inwards,
the course of the muscle must be somewhat backwards. A general rule for the point of election in perforating the membrane for tenotomy, he thinks, cannot be given, but a decision must be reached in each individual case from the appearances and condition of the membrana tympani and of the manubrium.

(7.) Dr. Buck, in an exhaustive and thoroughly practical article, divides the diseases of the mastoid process into five varieties:— (1) inflammation of the external periostium; (2) simple congestion of the mucous membrane; (3) congestion and filling up of the cells with a reddish, pulpy material; (4) chronic subacute inflammation of the mucous membrane, with sclerosis or hyperostosis; (5) caries, with accumulation of pus, within the mastoid process, the second, third and fifth varieties being different stages of an acute inflammation.

The first variety consists of an inflammation of the external periostium only, the result of an inflammation of the meatus, which extends, ex contiguo, backwards; it may go on to the formation of a subacute cellular abscess. The treatment should be directed to the meatus as the original disease, unless pus has actually formed, when it should be evacuated by incision. The small gland lying over the mastoid may become inflamed, and this should be distinguished from the inflammation of the periostium proper.

The second variety is often seen in acute inflammation of the middle ear, and is characterized by pain behind the ear, tenderness on pressure over the mastoid, and occasionally by slight swelling. Active local bleeding, either by leeches, or, if these are not sufficient, by free incision through the periostium, will generally relieve permanently.

The fourth variety, sclerosis or hyperostosis, is the result of long-continued inflammation of the mucous lining of the cells; its progress is insidious, its symptoms slight, if any, and its diagnosis impossible.

The third and fifth varieties can, with difficulty, be distinguished from each other, it being often impossible to decide when the former has passed into the latter; both endanger the life of the patient. The probable change from one form to the other is thus described by Buck: "the intercellular passages being closed, and the cells themselves filled with the swollen and congested mucous membrane, stasis follows in the local circulation, the bone becomes deprived of its nourishment, and the soft parts filling, the cells break down into pus. The bony septa then either become dissolved, forming granular detritus, or separate as a connected whole from the surrounding healthy bone." The disease may terminate either in death from basilar meningitis, abscess of the brain, embolus and pyæmia, or exhaustion, or else in recovery after the extrusion of the carious bone. Pain and tenderness on pressure are almost always present, and the following aids to diagnosis are given by Dr. Buck. Prolapse of the posterior and superior wall of the meatus is occasionally seen, associated with caries; brain symptoms may occur in inflammation, with or without pus, or may be absent, with extensive caries; facial paralysis occasionally occurs, from the bony walls of the tympanum, in which the nerve lies, being involved; cessation or diminution of the purulent otorrhcea usually precedes acute mastoid inflammation; occasionally, the membrana tympani remains entire; pus through the Eustachian tube indicates some obstruction to its escape from the meatus; granulations on the upper or posterior wall of the meatus would lead us to suspect an opening into the mastoid cells at that point.
When local depletion and incision through the periosteum are insufficient to relieve the pain and tenderness, the cells should be exposed by perforating the bone. Out of thirty-one cases tabulated by Dr. Buck, in which the operation was performed, the disease was arrested in twenty-three, and of the remaining eight fatal cases, death could not be attributed, either directly or indirectly, to the operation, except in one case; in the remaining seven cases, pyæmia or inflammation of the brain had already developed itself before the operation. The operation should be performed as follows:—after exposing the bone, its condition should be examined, and, if roughened or softened, it should be perforated with a director; if pus is found beneath the periosteum, a sinus should be sought, and, if found, enlarged; if no natural opening is seen, the bone should be perforated inwards, forwards and upwards from a point a quarter of an inch distant from the meatus, and a little below the level of its upper wall, till the mastoid cells are reached; the long septa should then be broken down with a director. The only caution in the operation is not to wound the lateral sinus. The after-treatment consists of keeping the wound open by tents, poultices and dressing.

The article closes with a tabulated statement of thirty-five operations, from various authors.

(8.) The artificial perforation of the mastoid process is discussed, historically and clinically, by Schwartzte and Eyssel, and their investigations of the anatomy of the mastoid cells are of interest, as they have succeeded in describing the relations of that very irregular cavity.

At the level of the hammer-anvil axis, the posterior wall of the tympanum bends backward at a right angle, and forms the floor of the antrum mastoideum; just below this floor, lie the external semicircular canal, the facial nerve and the stapedius muscle. The upper wall of the tympanum passes directly backwards, and forms the upper wall of the mastoid. The anterior part of the antrum, next the tympanum, forms a triangular cavity. Two millimetres behind the insertion of the short process of the anvil, the passage from the antrum begins to enlarge downwards and outwards, forming a cavity about nine millimetres high, twelve long and five deep. This cavity lies forwards, upwards and inwards from the rest of the mastoid cells, and is bounded on its upper, lower, inner and posterior sides by the petrous bone, and on its outer side by the squamous bone. From this cavity as a centre, the mastoid cells branch out in the form of a fan, but, from the absorption of their partition walls, often become irregular. The cells in the petrous bone are the largest; those in the squamous bone, over the meatus, the smallest. Occasionally, the occipital bone takes part in the formation of the cells.

The second part of their paper is occupied with a discussion of the different modes of operation, and the authors prefer to open the bone with the chisel rather than with a boror trephine; in other respects, this section offers nothing new. Finally, a table of fifty-nine cases, from different authors, is given.

(9.) A startling series of observations, made on himself for a number of years, are described by Nussbäumer, in which he attacks the physiological axiom that each organ of sense is capable of peculiar perceptions which can be excited by no one of the other organs of sense.
The author himself, and his older brother, both have this peculiarity, that every perception of sound, either music or noises, excites also a perception of light. His ear is so delicate, that with the deep notes of a piano he is able to hear eleven over-tones, and with each one of these has a distinct perception of light. As children, he and his brother were in the habit of designating frequently the tones of different objects when struck, not by the sound, but by the color produced. To learn whether the perceptions of the two brothers were always the same, a long series of questions to be answered by each were written, from which it seemed that, although each had a perception of light with each sound tried, yet the color of the light varied, being, for instance, for the note A, in one dark-prussian blue and in the other dark yellow.

The color was never seen externally, but, as he expressed it, his brain suffered from the action of a sound-wave in the meatus, not only the normal, but also such a change as produced in his consciousness an impression of color. When in concentrated thought, however, the perception of color might escape notice.

In the discussion which followed, Prof. Benedict considered that the phenomena were not physiological but pathological. Optical perceptions as the direct result of acoustical perceptions could only be pathological; similar obscure diseases of the mind and brain were frequently observed in hysterical, hypochondriacal and melancholy persons, but were not understood, as most physicians were unskilled in psychology. He predicted that similar observations to those of Nussbaumer would soon be reported, now that attention had been called to them. Finally, Prof. Benedict warned the patient against farther observations on himself, lest the phenomena should overpower him, especially as it was evident that there was an hereditary tendency; possibly, heterotopia was the cause of the phenomenon.

(10.) Bezold, with the history of ten cases of the disease, adds his contribution to the pathology of parasitic growths in the ear. In all of his cases, the presence of the vegetable parasite had been preceded by the instillation of oil into the external meatus, which, in his opinion, furnished a favorable soil for the development of the plant; but the presence of the growth he considers a specific parasitic disease, and not an accidental circumstance, for having once formed on foreign masses, such as cerumen, dead epithelium or oil, it may invade the healthy epidermis of the meatus or membrana tympani. The latter part of his paper is taken up with a description of the various species of vegetable parasites which have been discovered by the authors whose experiments he accepts as conclusive, although none have yet been given in which the spores in the atmosphere have been so perfectly excluded as to allow only the development of the parasite originally planted.

(11.) Zanfal adds to the little which has been written on injuries of the ear the histories of six cases observed by himself: viz., hæmorrhage between the layers of the membrana tympani, with consecutive meningitis, the result of a fall into the water; rupture of the membrana tympani from the same cause, with the same result; hæmorrhage between the layers of the membrana tympani, the result of a cannon explosion; hæmorrhage in the right membrana tympani, the result of a fall from a wagon on to the pavement; rupture of the right
membrana tympani, which was already atrophied from disease, the result of a blow on the ear with the fist; rupture of a cicatrix in the left membrana tympani from a blow with the fist.

(12.) Luæ reports ten cases of what he calls instances of pearl-tumors, in order to call attention to the serious nature of the disease, and also to the seat of the tumors, which, he asserts, is in the tympanum. He distinguishes the masses found in his cases from the epidermal masses resulting from a simple purulent otitis, and only applies the term pearl-tumor to lamellae of large cells, without nuclei, which have formed considerable masses resembling beans, peas, or acorns. In all of his cases, chronic otorrhoea had existed for years, the membrana tympani was perforated, portions of the bone were destroyed, and the pathological masses were removed by syringing from within the tympanum. No evidence is, however, brought forward to show that the epidermal masses were the cause of the destruction of the bone, and in the discussion which followed the reading of Luæ's paper, both Langenbeck and Waldeck considered that the masses in question were rather the result of the long-continued inflammation and caries than the cause of it.

(13.) Politzer, in a long article, in which he discusses the various methods of removing exudations from the tympanum by the air-douche and paracentesis, also gives his conclusions on the value of the tympanic catheter, first introduced by Weber-Liel. In the secretary affections of the tympanum, with swelling of the Eustachian tube, he found the catheter useful for injecting astringent and alkaline solutions, but the results were no better than those obtained from the same injections through the Eustachian catheter; in the most insidious affections, the results from the tympanic catheter were not favorable. Only in the rare cases in which the Eustachian tube was very much swollen, was he able to gain by the tympanic catheter what he was unable to do by the air-douche or Eustachian catheter.

(14.) Dalby reports the case of a young child, who thrust a pair of sharp-pointed scissors into the left ear, perforating the membrana tympani; the injury was followed immediately by complete facial paralysis of that side, which still remained the same, three months afterwards. The facial nerve was evidently severed in the Fallopian canal, where this passage passes through the tympanum.

(15.) From an analysis of eight cases observed by himself, Hinton concludes that Menière's theory of the disease which bears his name is very doubtful, the symptoms pointing more frequently to a real cerebral rather than to a labyrinthine affection.

(16.) From the analysis of a large number of cases of cerebral disease, Dr. Hughlings Jackson expresses the opinion that deafness never results in any way, from any kind of disease, in any part of either cerebral hemisphere.

(17.) To the clinical history of ëmatoma auris, Dr. Farquharson contributes several cases which occurred in boys, from blows received on the ears while playing football, and also refers to two cases in prize-fighters.

(18.) In order to correct the little notch which is left in the lower border of the lobule after the operation for cleft lobule, Knapp adapts the Meriault-Langenbeck operation for hare-lip to the ear, and makes a little flap on one side of the cleft, which is carried over and attached on the lower border of the opposite side by a suture.
Bibliographical Notices.


The Boylston Medical Society, as is well known by graduates of the Harvard Medical School, is composed entirely of medical students, who elect their president annually from the ranks of the profession. The Society has always been popular among the students, and during the many years of its existence, for it is quite a venerable society, it has succeeded in enrolling among its members only those students who were earnest in their work. It has served a useful purpose, like the popular clinical conferences, in encouraging original contributions and debate among the students themselves. Two prizes are usually awarded annually for essays on any medical subject, and the standard of these has testified favorably to the character of the students and the excellence of the instructions which they have enjoyed. It was a noticeable fact, however, that the number and high standard of these essays offered this year exceeded in a marked degree those of former years. As evidence of this, we have but to call attention to the elegant little volume of Mr. Ela.

Fractures of the elbow-joint are, perhaps, among the most dangerous of surgical injuries—to the ignorant practitioner—an apparently slight injury being followed by a condition which seriously impairs the usefulness of an important member, perhaps to the surprise of physician as well as patient. It is but too frequently by dearly bought experience that the practitioner learns to appreciate the difficulties attending the treatment of this injury. Mr. Ela, in his essay, after some prefatory remarks on the anatomy and development of the elbow-joint, describes accurately and clearly the various forms of fracture to which it is liable; where necessary, his remarks are illustrated by diagrams and drawings made by Dr. H. P. Quincy, whose reputation as an artist is rapidly becoming well known. The simplicity, but the importance of the treatment now adopted by our best Boston surgeons for this injury has received due attention, and the essay closes with an account of the dissection of an elbow-joint which had sustained, among other injuries, that of impacted fracture of the neck of the radius. The case is handsomely illustrated. We cannot close our notice of this brochure without complimenting Mr. Ela on the excellent character of his work. We do not remember to have seen a better description of these injuries, and we recommend it as a valuable addition to any physician's library.


As the English edition has been reviewed in the Journal of April 10th ult., we need now merely mention the form of the American one. This is very briefly done; the paper, type, cuts and binding are all very good.

This work supplies a want which has long been felt by all readers of physiology. Recognizing the fact that physiology is emphatically an experimental science, it furnishes minute instructions for performing a great variety of experiments illustrating all the most improved methods of physiological investigation. The directions are given so much in detail that in many cases the student may dispense with the assistance of an instructor, but here, as in all investigations involving delicate manipulation, the most minute written instructions can never take the place of experience. It may, perhaps, be feared that a work of this sort will be likely to encourage indiscriminate vivisection, and to lead to an amount of suffering out of proportion to the advantages obtained. The writers, however, seem to have had this danger in view, and have given careful directions for administering anaesthetics and narcotics. Certain classes of experiments are omitted, for the avowed reason that they do not succeed on narcotized animals.

By dividing the work to be done, amongst four investigators of acknowledged experience in their own departments, a degree of excellence has been obtained impossible by any other method. The work is distributed as follows:—

I. Histology, by Dr. Klein.
III. Muscles and Nerves, by Dr. Foster.
IV. Digestion and Secretion, by Dr. Brunton.

The plates, 123 in number, form a volume by themselves. The inconvenience which necessarily results from thus separating the plates from the text, is greatly increased by the confused arrangement of the figures. For instance, the figures of the first six plates occur in the following order: 1, 12, 2, 13, 16, 3, 4, 14, 5, 6, 17, 11, 20, 21, 18, 19, 22, 23, 24, 25, 7. Fig. 8 is on the 17th, and Fig. 9 on the 37th plate. Such confusion must, of course, cause the reader great waste of time. The execution of the plates, however, leaves nothing to be desired. Those illustrating the histological portion of the work are models of clearness and beauty. Particularly worthy of attention are those figures which show the distribution of the non-medullated nerve fibres, as revealed by the chloride of gold process, and those showing the relation of the lymph-spaces to the lymphatic vessels on various parts of the body.

In this portion of the work, the writer gives all the most approved methods for preparing the various animal tissues for microscopical examination, and describes and figures the latest results of histological investigation. A student of histology could scarcely desire a better guide. It would have been an improvement, however, if the enlargement of the figures had been expressed in diameters, instead of indicated by reference to the objective and eye-piece used, for a beginner derives very little information from " Oc. 4 ; Obj. 7," especially if he does not happen to be the fortunate possessor of Hartnack's objectives.
In the second portion of the work, Dr. Sanderson describes a number of simple experiments designed to illustrate the chemical and optical properties of the blood, and gives careful directions for analyzing the gases of that fluid. Following these, is a chapter on the circulation of the blood, containing a description of many of those important experiments which have thrown so much light on the functions of the nervous system in regulating the movements of the heart, and the resistance offered by the arteries to the flow of blood. In a department of physiology where so many questions are still under discussion, it is difficult to avoid confusing experiments with the inferences to be drawn from them. Though, as a rule, this distinction has been carefully maintained, yet there are one or two cases (e.g., in the section on the influence of the respiration on the circulation) where the experiments seem to admit a different interpretation from that given by the author. The chapter on respiration contains rules for the determination of the amount of carbonic acid excreted in a given time, and a very good account of what is known of the innervation of the respiratory muscles. In the chapter on animal heat, the problems are stated with a very gratifying clearness, and the dependence of the temperature of the body on the relative activity of the production and the loss of heat most distinctly explained. The chapter is necessarily a short one, for there is no great variety in the experiments to be performed. In this second portion of the work, quite a number of misprints occur, which should be corrected in another edition.

Dr. Foster gives, in the third portion of the work, very minute directions for making a large number of observations on the properties of nerves and muscles, including the effect of stimuli of various sorts, and the demonstration of the electrical phenomena peculiar to those tissues, both in activity and repose. This, of course, involves the use of some rather delicate apparatus, the manipulation of which is very carefully explained.

The fourth portion of the work, by Dr. Brunton, begins with a chapter on albuminous compounds, which is followed by a second on the chemistry of the tissues. These two chapters together form one of the best handbooks of physiological chemistry in the English language. Many of the processes and reactions are taken from Hoppe-Seyler's well-known work. The chapters on indigestion and secretion contain excellent directions for obtaining the various digestive fluids and other secretions from the living animal, and the methods for investigating the peculiar properties of each. The author indicates, by a single or double asterisk, the more important experiments or processes, thus affording great assistance both to teacher and student.

In an appendix, are given rules for a variety of manipulations of great importance to students in a chemical or physiological laboratory.

The publication of this work may fairly be regarded as marking an important advance in physiological science, for it enables all students and practitioners of medicine to verify for themselves the experimental basis upon which scientific medicine must ultimately be built up.

H. P. B.

of publication by D. Appleton & Co., of New York. A few of the series besides this have been published. The others, we are informed by the advertisement, are in course of preparation.

The object of Dr. Smith's book is to give the latest scientific knowledge with regard to food, and at the same time to treat the subject in a manner sufficiently popular to be understood by the non-scientific classes. Water and air are very properly included in this volume and discussed as foods, with which they have most intimate relations, both in their sanitary and nutritive aspects. The subjects of diet and dietaries are not considered here. Dr. Smith has reserved the discussion of them for another occasion. He gives, however, a variety of tables, that are of interest and value both to the scientific and general reader, and a number of old recipes for the preparation of food, relics of the past, which are curious rather than valuable.

After a brief introduction upon the nature and qualities of foods, the book is divided into three parts. The first part treats of solid foods, and is naturally subdivided into two sections, which describe respectively animal and vegetable foods. Part second is devoted to liquid foods, with which it is noticeable that water and alcohol are classified. The third part describes gaseous foods, or atmospheric air and ventilations. A sufficiently copious index closes the volume.

Dr. Smith defines food to be "a substance which, when introduced into the body, supplies material, that renews some structure or maintains some vital process," a definition which is more comprehensive and philosophical than that of M. Voit, who defines a nutriment "to be a substance which is capable of furnishing to the body any of its necessary constituents, or of preventing the removal of such constituents from the body." According to M. Voit, starch is food solely because it protects fat from decomposition in the body, and if taken in excess causes the decomposition of fat there. According to Dr. Smith, starch is a food, not solely because it restrains the consumption of fat, but also because the changes through which it passes in the system, are accompanied at every step by the production of heat, that is, by the evolution of force. We should not refer to what at first sight seems so trifling a matter as this, were it not that much needless discussion can often be avoided by exactness of definition, and especially does this hold true with regard to food. Many wordy fights, with regard to the claims of alcohol to be considered a food, would have been avoided, if the combatants had agreed first upon a definition of terms. According to Dr. Smith's definition of food, every one would classify wines and the like under that head.

The chapter on alcohol and alcohols is one of the best accounts we have seen of the physiological and therapeutic action of those agents, but still it does not present a complete account of them. Dr. Smith's views, which recognize fully the evils and dangers of distilled and fermented drinks, would not be indorsed by the intemperate advocates of the temperance reform. He favors, however, distinctly and unequivocally, the restriction of the sale and use of spirits, wines and beers to physiological purposes. Whenever the so-called friends of temperance will stand upon a physiological platform, they will exert an influence and bring about results, greater and better than any hitherto accomplished.
Dr. Smith's treatise is an excellent one, and physicians will find in it much that is valuable to them in the management of disease, and especially in the management of convalescence. The laity can read and study it with advantage, also, and without the danger of getting nervous over it. We commend it to all who desire to know how, when and what to eat. The typography of the American edition is excellent.

E. H. C.

**THE CIS-ATLANTIC NEW DEPARTURE IN MEDICAL TEACHING** is the title of an Editorial in the *Peninsula Journal of Medicine* (Detroit). We quote the following extracts:—

"The fact that Harvard, with the inherited qualities of the stern old Puritans—the blue blood of New England flowing through her veins—has crossed the Rubicon is the first sign of the times. With the true heroism of her ancestors, has she buckled on her armor against the enemies of enlightenment, and drawn the sword in favor of scientific knowledge. A hundred have fallen away from her into less disciplined ranks; but what has she not gained? Has she not called to her standards, in the two years since her new departure, a class of men who cannot be equalled by any other college in the land? Are not the profession in the East, West, North and South, beginning to send up their best qualified students to her halls, hospitals and clinics; and is not Boston almost at once placing herself at the head of medical instruction of the best class? For the one who has fallen away from her on account of her advanced requirements, two will be found, not far in the future, listening to her instructions. Can we not hope that our own University may soon be found following closely where she has lost the opportunity to lead? We can understand, that wherever the compensation of the professors depends largely upon the number of the students, the initiative could hardly be expected from them; and that this has been almost the sole reason for the delay, the profession at large most thoroughly appreciate; but that institutions in which this has not been the case, should allow themselves to be kept back for so many long years, is utterly incomprehensible.

"We are not of those who believe that the Atlantic slope is destined to long define the bounds of all literary or scientific leadership; that the Alleghanies can shut out from this great continental middle ground the light which is destined to vivify and develop all that is possible, or that can be required intellectually of this great people. Neither do we believe that the large, overgrown class system is conducing to the best teaching, or the best learning. The plan of Harvard, which is essentially the British system, and, according to Billroth, makes the best doctors in the world, can be introduced into any and every medical school in the land.

"Until reform is generally adopted in this matter, by American medical schools, and the directors and controllers of our institutions of learning meet this question of higher medical education squarely, face to face, we will be obliged to hold in more than usual esteem and consideration the professional brother who is entitled to inscribe after his professional initials the official stamp (Harv)."
Perhaps no one thing contributes more to the health of large cities than the fostering of a taste among the community for frequent healthy recreation in the open air. It is second only to the enforcement of sanitary laws which we are now, for the first time, beginning to appreciate, since the enjoyment of the luxury of an efficient board of health. It is a notorious fact that Americans, absorbed as they are in the pursuit of wealth, have, for generations, disregarded and neglected the means of recreation and rest from labor which the necessities of the human frame demand, until they have become nearly incapable of indulging in rational and healthful modes of enjoyment. We speak now more particularly of the laboring classes and of those whose means do not permit of an escape from the cares of business and hard work to the seaside and the country. A decided movement has taken place among the wealthier classes, of late years, and an entire change of scene and life for one or two months of the year is adopted by all who feel able to do so. In fact, people in this country are just beginning to learn how to live. The large and more numerous class of the community, who never leave the city, remain still to be provided for. If we make the tour of our streets on a summer Sunday afternoon, we shall find that it is but an insignificant portion of the inhabitants who now avail themselves of such parks as we now possess; nine out of ten are contented with their own door-step, the street corner, or perhaps a secret rum-shop. How, then, is this much desired change to be fostered and encouraged? The example of other countries may give us a clue to the solution of this problem. Great Britain is, perhaps, as poorly off as ourselves in this respect. There is scarcely a more gloomy spot on the face of the earth than many an English city on a Sunday afternoon. In London, however, it may be said, the case is somewhat different; the parks are large, numerous and beautiful, and a new one has lately been opened, the Victoria Park, expressly for the benefit of the working classes. The Alexandra palace, lately destroyed by fire, although a private enterprise, was intended for the same purpose.

When we come, however, to the continent of Europe, we see how much really can be done for public amusement. In addition to the large park in the immediate vicinity of every city of tolerable size, with a handsome avenue connecting the two, there exist innumerable places, in the city’s environs, suitable for an afternoon’s excursion, and what is more important still, the means of getting out of town are
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numerous and cheap. In most cities in Germany, the streets are well-nigh deserted on fine fête days and Sunday afternoons. It is not the beauties of nature, alone, which entice the families of these cities from their homes. The means of rational enjoyment are varied and numerous. It is not thought wicked to row on the lake, to play at some innocent game, or to frequent the neighboring restaurant, where dinner may be had in the open air, and lager beer and light wines are in abundance. Drunkenness and rioting are almost unknown to these people. It would take more space than our columns allow, to enumerate merely the opportunities which the poor man has for enjoying himself. The refining and healthful influence of this mode of life has left an indelible mark on the people of these countries. Can we not profit by their example? Such a radical change in the habits of the people as this would imply could not be brought about perhaps until after the lapse of many years, and then indeed could not be carried to the extent which obtains in the more equable climate of Europe.

The advantages to be gained, however, by attractive well-kept breathing spaces, within the limits of a city, and an available public park in the neighboring country, have been demonstrated in many of our large cities, and it is to be hoped that public opinion will, ere long, urge a reform in these matters, and that Boston may appropriate some portion of her beautiful suburbs, before the opportunity is forever lost, and place this department in the hands of men sufficiently educated and competent to make it what it should be.

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It is not to be expected that so great a reform as the acceptance of ether and the repudiation of chloroform, in England, should take place without many delays and much bitter discussion. Our chief surprise is that so much progress should have been made in so short a time. We have no desire to take part in the controversy, for, now that ether is on trial there, it may be left to its own merits, but we think it right to correct a gross misstatement which, if uncontradicted, might deter many from trying it. Dr. Charles Kidd, of London, has written a paper, which appears in the Edinburgh Medical Journal for August, which, besides many less important errors, contains the following sentence: "The well-known seven deaths at Lyons, and forty-one of the Boston committee, all from ether, are, from insufficient knowledge, forgotten or misrepresented." Any one, ignorant of the facts, would infer from this that a committee of Boston physicians had found that ether had caused death in forty-one cases. The truth is that a committee appointed by the Boston Society for Medical Improvement, to inquire into the alleged dangers of ether, collected forty-one cases of alleged death from its use, and reported, among other things, that
there was "no recorded case of death, known to the committee, attributed to sulphuric ether, which cannot be explained on some other ground equally plausible, or in which, if it were possible to repeat the experiment, insensibility could not have been produced and death avoided." In many of these cases, it was simply preposterous to attribute the death to ether, as in sixteen it occurred at least three days after inhalation (in six cases, from eleven to sixteen days), and in others, not for several hours. It is hard to conceive how one, writing so confidently as Dr. Kidd does, should have made so inexcusable a blunder; perhaps he intended to illustrate, by an example, the mis-representation "from insufficient knowledge" to which he alludes.

MEDICAL DEGREES FOR WOMEN.—The discussion begun in the English press after the recent decision of the Scotch courts adverse to the suit of Miss Blake and others, claiming degrees from the University of Edinburgh, is still in progress. The question now is, what shall women do who desire to obtain a medical education? Mrs. Anderson, M.D., recently published a communication in the London Times, advising those of her sex who were ambitious of professional service and honors to go abroad for their education and degree. The trouble in England is that it is now impossible for a woman to obtain the license of a legally qualified practitioner, without which, she is in the eye of the law a quack, unable to institute suits to recover fees for professional services, a disability for which the circumstance that she cannot be held responsible to the state for malpractice is but a poor compensation. Mrs. Anderson argued that the proper resentment for such privation was for the women who desired knowledge to shake the dust of England from their skirts, and honor the schools and hospitals of Paris by their patronage, until the English government came to its senses and removed the restrictions hampering the sex.

Miss Jex-Blake, one of the heroines of the late controversy in Edinburgh concerning the right of women to receive instruction in the medical school of the university, antagonizes the views of Mrs. Anderson in this particular. She thinks self-expatriation is the very worst and most foolish thing the women could do, and that it is, moreover, unnecessary. Writing from Edinburgh, she intimates that Mrs. Anderson concedes too much by assuming that all the Scotch universities are permanently closed to women, and points out how purely technical are the barriers now remaining between women and the privileges they desire. She is very hopeful of the speedy provision of a way to secure what is wanted, either in England, Ireland or Scotland. Suppose English women do go abroad to secure an education; they will be, when they return, on precisely the same footing as now, unless the laws are changed, and nothing will in her view do so much to prevent a change as an apparent acceptance of the situation by those who are most interested. Indeed, the opponents of the needed reform would hail the expatriation with satisfaction. The way of duty is not in this direction. It is more serviceable to the end to stand waiting and protesting.

Miss Jex-Blake points out the fact that the case is not so intolerable
after all; at least, that there is a possibility open to women of obtaining a sound medical education at present. The extra-mural school in Edinburgh is open to them, and, with slight changes in the curriculum, a thorough medical education can be secured there without change of the existing conditions, and she is decided in the expression of opinion that it is infinitely better for Englishwomen to obtain their education at home, in their own language and amidst the social conditions in which their future practice will be. No foreign diploma or degree is acknowledged as qualifying the bearer for registration in England. The main thing is to get the laws changed, and she entertains a cheerful confidence that this may be effected during the next session of Parliament. In this connection, it ought to be stated that Mrs. Anderson has her legal status assured by a license of the Apothecaries' Company, granted some years ago, but of late that company has refused to recognize the sufficiency of private instruction.

The Times, in an article reviewing the matter, declines expressing any opinion as to the policy of going abroad for study, but is quite discouraging in its comment on the probability of speedy action by Parliament for the removal of obstacles. For several years, ineffectual attempts have been made to procure action on a bill reforming the standard of professional attainments for men, and the Times thinks that if those who are already in the ranks of physicians cannot get their wishes heeded, there will be little chance for those who are merely aspirants. The whole subject will have to be delayed until the government can be prevailed upon to bring in a general bill regulating the profession. As to the mooted project of establishing a medical school especially for women, the writer of the article thinks it would not pay, and the founders would discover, after spending a good deal of money, that they had to show for it only some useless and empty buildings. Evidently he does not believe that the demand justifies such an enterprise, and adduces experience in the United States to justify his opinions.—Boston Daily Advertiser.

The Centre of the Nerves of Erection. By Wm. Ashbridge, M.D.
—Professor Goltz was induced, by the statement of Eckhard that the nervi erigentes could be followed within the spinal marrow and even up to the pons and into the cerebrum, to publish the results of investigations of the subject made by himself upon dogs, and which have led him to a different conclusion. He is convinced that the nearest centre from which the nerves in question have their origin, is the spinal marrow of the loins. After section of the posterior segment of the cord in the thoracic region, he was enabled to cause erection by reflex influence.

He found also that the occurrence of these reflex phenomena can be checked by irritation of nerves of sensibility.

Further than this, he observed characteristic rhythmical contractions of the sphincter ani in animals whose spinal cords had been cut, which could also be restrained by irritation of certain parts. He concludes that the spinal marrow of the lumbar region contains centres of influence of far more diversified character than has previously been supposed.—Philadelphia Medical Times.
Correspondence.

LONDON LETTER.

(From our Special Correspondent.)

LONDON, Sept. 10, 1873.

The annual meeting of the British Medical Association held here has been, according to quite universal assent, a very important and successful affair. It has exercised an influence which it is more easy to appreciate now, perhaps, than it was at the time of the meeting, and from it some lessons may be learnt which may be of interest to those who desire to see the American medical profession similarly knit together in a powerful association, and meeting annually in great numbers, and for the transaction of matters useful to themselves and calculated to raise the profession in public influence and estimation. That has undoubtedly been the character of the London meeting; nearly two thousand medical men attended it, and among these were all the most eminent men in the country, or nearly so. Fergusson, Paget, Jenner, Burrows, Hughes Bennett, Hilton, Curling, Gairdner of Glasgow, Macleod of Glasgow, Runnelly of Cheltenham, Paget of Cambridge, Humphrey of Cambridge, Ceely of Aylesbury, Quain, Marshall, &c., these are all names which you will recognize as amongst our most representative men, and, of course, they are only a few out of many. There were very few who were absent, and these only because the meeting falls at the close of the season, and the labors of the year prove so exhausting to some that they feel necessitated to get rest when the 30th of July has come. It may be interesting to examine what it is in the constitution of the British Medical Association that makes its meetings attractive to the best men, and gives it the power in the State which it unquestionably exercises. How is it that it numbers 6000 members? that it has flourished in spite of all obstacles and of great opposition? and that, when it met in London, it was welcomed by the Lord Mayor at an official reception at the Mansion House, prepared with great pomp and expense, and by the Prime Minister, Mr. Gladstone, who was at the pains to attend its banquet and to pay it the most handsome tribute of respect? and, further, that the Times, the most exclusive and least professional of all political papers, devoted a great number of columns daily to the report of the proceedings? You will find, possibly, many different explanations from different sources; but, looking at the facts, they will be found to have their own logic.

The Association was founded forty years ago by a provincial physician, Dr. Hastings, who aimed at raising the country practitioners to a position more nearly resembling that of the great metropolitan practitioners than they then held. He wisely held that this was best done by uniting them in an effort to cultivate high objects, and to sustain their honor and prove their claims to position by the development of scientific effort and the maintenance of a high ethical code. The advance of the provincial practitioner in position since the establishment of this Association, has been marvellously great; the Association alone could not have effected this result. It is due, in no small measure, to the general diffusion of a degree of culture which was once the property of the few, and to such an improvement in the tests for diplomas, that the ordinary general practitioner of to-day is of necessity possessed of a larger amount of technical information than the hospital physician of forty years ago needed to possess, so far as strictness of examination demanded it of him. But the Association has had a vast influence in the fortunes of the provincial practitioner, by giving him what he did not before possess, the power which union commands and the ambition which that power begets. Fortunately, the men who guided the Association in early years were not beset by petty notions or by the wish to pull others down in the desire to aggrandize themselves. They worked in this way. They ar-...
ranged branches or sections in all the different districts of the country (as far as they could); each section or branch elected its own officers, held its own meetings for scientific purposes, and elected one delegate for every twenty members, to act in the General Council. The General Council assembled once a year only, at the date of the annual meeting of the whole Association, and then proceeded to elect twenty members as a Committee of Council, or Executive Committee. This executive committee acts throughout the year as the ruling body of the Association in all matters of general policy, and it alone can speak for the Association. Besides the twenty elected members, the president for the year and the honorary secretary of each branch are also members of the executive committee ex officio. Thus, anything like jobbery is prevented. The Association can also appoint standing committees on particular subjects, throughout the year, but the action of such committees can be at any time controlled by the executive committee, who are also empowered to decide all questions of expenditure. The president of the executive committee is elected biennially, and is not competent for re-election, but becomes, on retiring from office, a life-member of the executive committee.

The Association meets every year, in a different town, by invitation, and elects a president for the year from the practitioners of the town at which it meets. This alone gives dignity and prominence to provincial practitioners, and, as the nomination of the president of the year is made by the local profession, the result has always been satisfactory.

We come now to the question of funds and members. The great element of success in any institution requiring a subscription, is that it shall give some obvious and palpably adequate return for the subscription. Sentimental reasons will attract a certain income, but it will die off if not sustained by evidently sufficient results, and will never be large. The first return made was in the form of "Transactions," but such transactions were soon found to be of insufficient interest, and not to compare favorably with those of societies having a permanent residence in the great centres of learning and activity throughout the year. They were valuable, but they were tardy in issue and heavy in character. A weekly journal was found more lively, prompt and vigorous, and a return more valued, while it kept the Association well together and reported the affairs of all its branches. It has of late years developed into all the characters of a weekly paper of vigor, and, without saying anything more about it, I may say that it is popular and cheap, ranks as an authority outside the profession, and is read more largely than any other within it. It has been pointed out lately by the Council, by Dr. Quain, by Mr. Baker, and by all impartial observers, that the development of the Journal has greatly favored the growth of the Association.

It is, however, very apparent that the Journal, while helping the Association in an incalculable degree, has also raised up for it powerful enemies by the very fact of its existence. The whole influence of the other medical papers has, indeed, been incessantly employed against the Association, which they have with reason regarded as a rival publishing company, interfering with their business. In the case of the British Medical Association, where the constant meetings of the branches require not less than weekly publication to give cohesion and continuity to the work of the Association, it has answered well to brave that disposition, and the battle has been carried to a highly successful issue. It would be very unsafe to predicate a similar success for any other association, if placed under similar circumstances. What is really necessary is, to make a return for the money subscribed. Now, in the case of an annual association, experience has shown that money spent on "Transactions" should be limited. The professional papers may be trusted to give a fair account of the proceedings, and only the most important papers read should be published in the transactions. No money should be spent out of the funds of the Association on the reception and annual meeting. These should be entirely furnished out of the subscriptions raised pro hac vida from the local practitioners who have the honor and pleasure of receiving the visit of the Association. No money should be paid to any official, except the under secretary, who need not, and had better not, be a profes-
sional man (but a business man), and who need not, and had better not, have a vote in the Council. The annual meeting should be made attractive by arranging for the delivery of retrospects of medicine and surgery, obstetrics, physiology, &c., by eminent men, who should be officially invited to deliver them, by a joint arrangement of the local reception committee and the executive committee; ethical questions should be entirely excluded from discussion at the annual meeting; and referred, in the first instance, to local committees, and then to the general executive committee. For each day’s work, a series of questions should be prepared; some one gentleman of known experience in the matter being invited beforehand to prepare a preliminary paper on the subject. Meetings so arranged could not fail to be popular; they would be proportionally influential, and there would be a handsome surplus for general and scientific purposes.

This is, of course, only an outline sketch of views which are derived from observing the course of our various British societies. I have stated them, perhaps, dogmatically in form, but not in intention; and the form is due to the necessity of being brief, with the hope of avoiding a fault into which I fear that I have nevertheless fallen, that of being tedious.

SEPTEMBER 26th, 1873.

MESSRS. EDITORS,—“Country Doctor,” in your issue of yesterday, seems to question the statement, said to be made “in the books,” that “the smallest angle of distinct vision is about one second,” since he was able to see a single thread of spider web in the early morning, when the sun shone on it, at seventy feet distance, while this thread at the distance mentioned would subtend an angle of less than the hundredth part of a second.

If I understand Country Doctor’s argument correctly, it is this:—The books say that the smallest angle of distinct vision is one second. I can see an object which subtends an angle of less than the hundredth part of a second. Ergo: the books are wrong.

I should like to point out some fallacies in this argument.

1st. The thread was seen in the early morning—clear and cold may be inferred from the fact that Country Doctor feared injury to his squash vines from frost. On such mornings, the threads of the spider’s webs would, as is well known, be coated with dew, and thus the reflecting surface be much greater than that of the thread alone which was measured under the microscope.

2nd. Admitting that the object seen subtended but an angle of less than the hundredth part of a second in one direction, in the other, that of its length, it probably subtended an angle much greater even than the “one second” which Country Doctor appears to object to: i.e., if the thread were only three inches long, it would have subtended an angle of more than twelve minutes in the direction of its length.

3d. Seeing an object, and distinct vision of an object are very different things, in degree at least. In order that Country Doctor should have distinct vision (as understood “in the books”) of his thread, he should be able to accurately distinguish such threads placed side by side and separated from each other by intervals only equal to the width of the individual threads.

4th. I am unable to find “in the books” the statement that “the smallest angle of distinct vision is about one second.” The test usually employed for the determination of distinct vision is that of Snellen’s test-types, and these, at the average extreme distance at which they are made out by the normal eye, subtend an angle of five minutes. According to Hooke, as quoted by Helmholtz, two stars, the apparent distance between which is less than thirty seconds, always appear as one, and scarcely one observer out of a hundred can distinguish them when their apparent distance is less than sixty seconds. Objects, however, which subtend an excessively small angle can be perceived by the eye, provided the intensity of the light coming from them is sufficient, as the fixed stars, for example. In the instance given, the direct rays of the sun were reflected from the threads of the spider’s web, and the intensity of the light was therefore great. Very respectfully

“Mote.”
TIMELY.—“Take every opportunity of learning to treat disease pleasantly—seek to make your medicines, your drugging of your patients, as elegant, as little nauseous, as little like medicines, as possible.”—Loud. Med. Times and Gazette.

RIGHT.—“The medical man must warn the public from popular medical fallacies and the foolish pretensions of the quack. He will be called upon to expose the follies of homeopathy—a system founded in deceit, built up in ignorance, and supported by credulity. ‘The true physician will endeavor to practice rational medicine, and not this or that system.’”—London Lancet, advice to students.

QUADRUPLE BIRTH.—A case of quadruple gestation is reported in the Chicago Medical Journal for September, occurring in the practice of Dr. L. B. Brown, of Sheldon, Illinois. The children were all girls, perfectly formed, and of fair size—two weighing five pounds each, and two weighing four pounds each. At the expiration of three and one-half months after birth, all the children were living and in a prosperous condition.

The Philadelphia Medical Times urges strongly the use of fosse d’aisance in that city for over-distended bladders, but fears that the public mind is not yet prepared for such an advance towards the convenience and comfort of the citizen public. It says “we plead for no such unblushing boxes as are to be found on the sidewalks of many streets in Paris. What we desire is the supply of a long-felt want, which is compatible with all decency, and the removal of one of the commonest and most frequent temptations of working men to go into rum-holes.

COOLING LOTIONS IN TYPHOID FEVER.—Jaccoud recommends aromatic vinegar as a cooling lotion in typhoid fever. This is to be applied by means of a large sponge, and the patient is then wrapped in a woolen blanket till he is quite dry. Each application should occupy about two minutes, and it should be repeated two or three times daily, according to the temperature of the patient. The lotions are to be kept up (unless the reaction is too severe) until the fever has entirely disappeared.—L’Union Médicale, Aug. 28, 1873.

WARM BATHS IN DISEASES OF THE CHEST.—M. Lasegue concludes, from a series of experiments performed in his clinique, that warm baths produce a diminution in the profuse perspiration of phthisical patients, and have the effect, moreover, of lowering the temperature and the pulse, quieting the anxious patient, and thereby inducing sleep. The temperature of the bath ought to be about three degrees below that of the body of the patient.—France Médicale, Aug. 9, 1873.

THE INTERNATIONAL MEDICAL CONGRESS has met this year in Vienna. The session commenced on Sept. 1, with a speech by the Archduke Rainer, in which His Imperial Highness welcomed the visitors to Vienna. The chair was taken by Professor Rokitansky as president, who delivered an address. Special discussions afterwards took place on subjects of sanitary and general professional interests, viz., vaccination, the prevention of syphilis and the control of prostitution; quarantine in general, and in its application to cholera; the formation of an international pharmacopoeia; the drainage of towns; and the social position of the medical profession. It is somewhat remarkable in the constitution of this Congress that, though it bore the name of international, and several of its members were accredited to it by the governments and learned societies of their respective countries, there appears to have been a deficiency of representatives from some countries—notably England and Sweden. The next meeting to be held in Brussels in 1875.—London Medical Record.
A NEW METHOD OF DETERMINING THE PRESENCE OF, AND RECOVERY FROM, TRUE RINGWORM.—At a recent meeting of the British Medical Society, Dr. Dyce Duckworth called attention to the action of chloroform upon the infected hairs in cases of tinea tonsurans, showing that this agent possesses peculiar properties in affecting parasitically diseased hairs. It was demonstrated that this agent caused the hairs to become white or slightly yellow in color, and thus to be distinctly mapped out and easily distinguishable from surrounding healthy hairs. The causes of the change were briefly discussed, and the particular phases of the disorder suitable for this application were pointed out. The effect of chloroform on patches of favus, tinea versicolor, melasma and alopecia areata was likewise discussed.

WARTS.—Dr. S. M. Bradley favors the belief in the essential unity in origin of all morbid growths characterized by abnormal development of epithelial elements, such, e.g., as scirrhous, epithelium, epulis and common warts. He affirms that the simplest of these tumors may evolve the more complex by the agency of external forces, such as irritation, pressure, etc. (the influence of heredity being always great in determining the exact nature of the morbid product); and that the power and rate of infiltration and invasion of the general system is due to simple laws, such as the size and shape of the cells, their degree of moisture, and the nature of the surrounding tissues. He maintains that, as electricity, by coagulating the albumen of a part, establishes a barrier to the onward march of the cell elements, it should, therefore, be employed in all cases of infiltrating tumors, when it is decided to eradicate the growth.—British Medical Journal.

LARGE PROFESSIONAL FEES.—It is not often that a professional man has the opportunity, or perhaps feels equal to the effort, of returning two fees of a thousand guineas each, in the course of the same year. It is understood, however, that this has occurred with Sir Henry Thompson this year. The first occasion was in connection with the illness of Emperor Napoleon III., when Sir Henry, in the most delicate and kindly manner, returned half of his fee of two thousand guineas; and the second is an instance yet more highly honorable to professional delicacy. Called to the bedside of a wealthy friend in the Highlands, near whose shooting lodge he was passing his vacation, he spent nine days in unremitting attendance. At the end, a cheque of a thousand guineas was handed to him, but was firmly declined, on the ground that the attendance was given to a friend and during a holiday.—London Medical Record.


dated September 27, 1873.

Deaths in seventeen Cities and Towns for the week ending September 27, 1873. 3

Mortality in Massachusetts.—Deaths in seventeen Cities and Towns for the week ending September 27, 1873. 3

Deaths in Boston for the week ending Saturday, Oct. 5th, 1873.

male, 57; females, 72.

Apoloicx, 3—inflammation of the bowels, 3—bronchitis, 4—congestion of the brain, 1—disease of the heart, 1—cancer, 4—pelvic cellulitis, 1—cholera infantum, 1—cholera morbus, 1—consumption, 1—convulsions, 3—cerebro-spinal meningitis, 1—lethality, 3—diarrhea, 4—dropsy, 1—drowned, 2—diphtheria, 6—dysentery, 2—scarlet fever, 8—typhoid fever, 3—disease of the heart, 6—hemorrhage, 1—intemperance, 0—disease of the kidneys, 3—inflammation of the lungs, 10—marasmus, 7—noma, 1—old age, 7—paralysis, 3—premature birth, 1—rheumatism, 1—disease of the spine, 1—syphilis, 1—teething, 2—tumor, 1—unknown, 1.

Under 5 years of age, 65—between 5 and 20 years, 11—between 20 and 40 years, 24—between 40 and 60 years, 20—over 60 years, 20. Born in the United States, 102—Ireland, 42—other places, 15.
PUERPERAL AMAUROSIS; ITS IMPORTANCE AS A SYMPTOM.

By Henry W. Williams, A.M., M.D. Harv., Professor of Ophthalmology in Harvard University.

Case I.—July 28th, 1873, I was consulted by a married woman, forty-three years of age, who wished to obtain glasses for the relief of defective vision. Her account was that, after two miscarriages, she had been confined four months previously; and that before the birth, she had suffered from headaches, had considerable albumen in the urine, and had nearly lost her sight. After delivery, she had gradually gained strength, but her nervous system, always excitable, had been depressed by the loss of her infant, and she still complained of a feeling of general exhaustion, and of very imperfect vision both for far and near objects. She could only distinguish No. XL of test-letters at 20 feet, though she was able to read with +30, and still better with +18, for a short time only. No glasses improved her perception of distant objects.

The visual field was not limited; but the ophthalmoscope showed an apparent white atrophy of the optic nerve disc in both eyes. There was no appearance of albuminuric retinal degeneration or other marked changes in the fundus of the eye, beyond the apparent atrophy. In view of the generally depressed state of the system and of the facts of the non-limitation of the visual field and the already improving sight, which the patient felt assured was still changing for the better, I felt warranted in the hope that the apparent atrophy of the optic disc might be only a result of an anaemic condition, and would allow of a favorable prognosis after the general condition of the system should be improved by rest and change.

Case II.—On the evening of the same day, a friend informed me that a patient of his, in regard to whose blindness in one eye he had previously asked my opinion, had just been delivered. She was a lady, thirty-seven years of age, who had been six times pregnant. When between three and four months enceinte, she began to have cædema of the face and the lower limbs, but the same had been her experience on previous occasions. On the 5th of
June, she had an attack of bilious colic which was speedily relieved, and she had no further trouble with the stomach and bowels. From this time, the œdema rapidly disappeared, and she had a voracious appetite until her confinement. No albumen, or, if any, only a slight trace could be detected in the urine at the time of the attack of colic. On July 16th, twelve days before her confinement, everything appeared quite black to her right eye. With both eyes open, she saw an appearance as of the vapor over a hot stove. From this time till the 25th, she was nervous and restless, and on this day had some slight labor pains, with a slight show of a semi-bloody and greenish color. On the 26th, the os was patulous, but she had good sleep and no further pains. Albumen was now found in the urine. In the afternoon of the 27th, there was a large gush of greenish brown waters and one strong pain. Labor terminated at 9½ P.M. The child was of fully eight months, very white and clean. The cord, for some distance from the navel, was green, gangrenous and of putty-like consistence. When cut, a drop of grumous matter exuded from each end. Near the placenta, the cord was stronger, but would not bear traction. The inner surface of the placenta was modulated and greenish. The mother believed the death of the child to have occurred two or three days before, as she had then ceased to feel movements.

Within an hour after the accouchement, the patient was able to distinguish with her right eye the outline of a picture frame, hanging opposite her bed, and this improvement in sight rapidly increased day by day.

No special treatment had been resorted to for the relief of the blindness, beyond enjoining unusual care to avoid fatigue or efforts which might induce cerebral congestion; but the patient was carefully watched, that any threatening symptoms of puerperal convulsions might be averted.

The _Berliner Wochenschrift_, June 9th and 16th, 1873, contains an account of four cases of puerperal amaurosis, by Dr. F. Weber, of St. Petersburg. The first case was of a small chlorotic woman, only eighteen years of age, who, in the middle of her term of pregnancy, was suddenly reduced from affluence to poverty, and awaited her accouchement amidst cares and hardships to which she was wholly unaccustomed. Towards the end of her term, she had œdema of the face and lower limbs. At the beginning of labor, she was suddenly seized with eclampsia, of which she had six paroxysms within fourteen hours, notwithstanding the use of chloroform and of subcutaneous injections of morphia. She was delivered with forceps, and then continued for six hours in a tranquil sleep, with natural respiration. On recovering consciousness, she perceived that she had become entirely blind. The pupils were widely dilated and immovable. She had no perception of light, but was annoyed by
sensations as of flashes and sparks within the eyes. Only small quantities of urine were passed, and these contained much albumen.

Ice was applied to the head, and bromide of potassium given in considerable doses, which treatment was soon followed by alleviation of the severest symptoms, especially the flashes. After three days, light was perceived, and in two days more, vision was quite restored; though flashes could still be seen when the lids were closed, and some weakness of vision and temporal headache continued for several weeks. The albumen in the urine diminished from the time of labor, and had disappeared at the end of six days. Patient had, afterwards, other pregnancies with no abnormal consequences.

The second case was a woman of forty-two, somewhat corpulent though anæmic, who had borne and suckled thirteen children. In three of the previous labors, there had been adhesion of the placenta, requiring manual efforts for its separation. During this last pregnancy, she suffered from great oedema of the face and extremities, with dull headaches, giddiness and severe vomiting. A strong convulsion followed the expulsion of the amniotic fluid, which was treated by chloroformization and morphia injections, and which was followed by two others of less intensity. The removal of the placenta was again required, and the atony of the flaccid uterus was only overcome, after dangerous prostration had come on, by stimulation of its inner surface. After the patient recovered consciousness, she complained of headache and flashes before the eyes, and, ten hours later, she became entirely blind. This complete amaurosis continued four days. On the fifth day, perception of light was regained, and on the sixth, vision was fully restored, though the sparks and flashes continued to be very annoying when the lids were closed. The urine was at first loaded with albumen, which continued in appreciable quantity for some weeks, although the amaurosis had quite disappeared. Patient had afterwards two children, with no recurrence of eclampsia or amaurosis.

The third case was a large obese woman of forty, who had borne six children without accident. A few days before the end of her term, she strained herself in moving a piece of furniture, and this resulted in premature escape of the waters and ineffectual labor pains with threatened convulsions. Applications of ice relieved the cerebral congestion, and the child was safely born. The patient now complained of severe headache and sparks and flashes before her eyes. Six hours afterwards, she had amblyopia, and, four hours later, amaurosis so far complete that only the faintest perception of a bright light remained. Two leeches were placed over each mastoid process, and the ice to the head was continued. By these means, the injection of the conjunctiva and the turgidity of the whole face was lessened, but the blindness persisted. A blister was now applied to the nucha, bromide of potassium was given in large doses, and the ice was still used. After fourteen days, the amaurosis had
diminished, and at the end of four weeks, it had disappeared. Albumen was not at any time found in the urine. Eighteen months afterwards, the patient was again confined, no abnormal symptoms supervening.

The fourth case was a woman of thirty, in her third accouchement. Eight hours after birth, pains in the forehead and temples, heaviness of the head, with quivering of the facial muscles and especially of the eyelids, were the forerunners of complete amaurosis. The pupils were widely dilated and insensitive to light, of which the patient had lost all perception. The scanty urine was albuminous. Convulsions being anticipated, an ice bladder was applied to the head, and chloroform was kept in readiness. Notwithstanding this, a severe eclamptic fit came on some hours after the blindness, and this was followed by a second, an hour later. Chloroform and subcutaneous morphia injections mitigated the force of a third convulsion, and the mild coma which ensued was soon replaced by quiet sleep and regular breathing, which continued twenty-four hours. At this time, quivering of the facial muscles and changed respiration seemed premonitory of another convulsion, which, however, was averted by immediate chloroformization and hypodermic injections. Awaking at last to full consciousness, the patient had the satisfaction of finding that the amaurosis had disappeared. Objects could be clearly seen. The pupils were of normal size and susceptibility, and only pains in the eyeballs and flashes and sparks when the lids were closed were complained of. The albuminuria did not disappear for several weeks.

The relation of puerperal amaurosis to puerperal convulsions is shown to exist, and though, to use the words of Dr. Weber, we cannot regard the former as invariably a premonitory symptom of the latter—since eclampsia is of far more frequent occurrence, and even in these cases frequently precedes the blindness—yet the occurrence of amaurosis during parturition should induce watchfulness to guard against complications.

The presence of albumen in the urine, though a usual coincidence, does not seem to have an absolutely determinative influence; as it is absent in some cases, and in others may long outlast the amaurotic symptoms.

The proportion of primiparæ attacked is small; reversing the ordinary rule as to eclampsia. Fortunately, the occurrence of blindness during one puerperal period, does not involve the probability of its recurrence in the patient when she again finds herself in similar conditions.

15 Arlington St., Boston, Aug. 20, 1873.
DELIRIUM TREMENS.

TINCTURE OF DIGITALIS AND CHLORAL HYDRATE IN DELIRIUM TREMENS.

By E. Chenery, M.D., Boston.

HAVING, in the course of twenty odd years, seen numerous cases of delirium tremens under various kinds of treatment, it is with peculiar pleasure that I record the following very remarkable success as a result of chloral hydrate in conjunction with tincture of digitalis.

Mr. B., a Scotchman, aged 35, accustomed to army life, was for many years connected with the Indian service in the west. During this time, he acquired the habit of using alcoholic drinks, which has followed him till a few months ago, when he was induced to reform. He got on very well for a time, when the old appetite was aroused in him by the thoughtless use of some light beer which he made and sold in connection with his other business, and in which there was a free amount of Sanford's ginger. Strong drink was now called for, and, becoming incapable of carrying on his business, "he went on a time." Alcohol became more and more the substitute for his food, till his system became poisoned, his tongue parched and swollen, his face congested, his breath foetid and he could neither eat nor sleep. When I first saw him, he had neither taken food nor slept for nearly a week, and rejected everything which was put into his stomach; his mind was greatly agitated, and his whole muscular system was in a state of continual unrest. His pulse was feeble and frequent, amounting to 120, and could not be counted at the wrist on account of the commotion among the tendons. He had taken bromide of potassium, without effect, before my visit. A strong mustard plaster was applied to the pit of his stomach; when well under way, fifteen grains of chloral were given, and, in twenty minutes, twenty drops tincture digitalis. These were both retained and had a favorable effect upon the tremors. Ten minutes after the digitalis, a dose of thirty grains of chloral soon brought on a sleep of three hours, when he awoke with relief to his trembling and in a much better state of mind. A raw egg and some milk were then given with another portion of digitalis, and, in a short time, thirty grains more of the chloral. From this time, he passed off into a sleep of many hours and awoke refreshed. The digitalis was given three times a day for several days, partly to moderate the pulse which remained at a hundred, but mainly for its eliminating effects upon the kidneys; and small doses of the chloral as occasion required. An infusion of quassia with a return to solid food, as his appetite required and his stomach would bear, completed the cure, which, taken all in all, was the most satisfactory that could have been desired.

This was not a case caused by leaving off his cups, but the direct result of their excessive use. From the moment he came under
treatment, he was not allowed another drop, except what was in his digitalis. That he would have recovered without treatment is quite doubtful, since he was then in a gradually sinking condition and had not for days taken a mouthful of food which he did not instantly reject, even a teaspoonful of milk being as quickly rejected as it was swallowed, though it is possible that he might have been sustained by nutritious injections till the alcoholism wore away. Opium was obviously contra-indicated by the parched mouth and fetid breath, for whatever advantage might have been hoped for from sleep, which it might be expected to give, would have been more than offset by the increased retention of the alcoholic poison and other effete matters which required to be eliminated. The chloral then to produce sleep and to quiet the nervous agitation, and the digitalis to reduce the frequency of the heart's action and to promote elimination by the kidneys, was evidently the rational indication, which the results fully justified. The mustard over the pit of the stomach and a small dose of chloral at first were necessary, in order that the first dose might be retained and prepare the way for a full dose which could not have been given at once. Moderate doses of chloral, to be repeated as circumstances justify, are all that any case of delirium tremens is likely to require, since, as Dr. Murchison thinks, there are grounds to believe that the existing impurities of the blood in such a case favor the action of the chloral by its more speedy conversion into chloroform.

_Fractures of the Internal Extremity of the Clavicle._ By Dr. E. Delens (Archives Gén. de Méd., May, 1873).—The study of these fractures has been hitherto somewhat overlooked. They are not very rare, though the number of recorded cases is not large. The whole number given by Dr. Delens, including eight of his own, is only twenty-eight.

The fracture is almost always oblique, without much over-riding of the bones, and, consequently, with little shortening. Mobility and crepitation are less marked than in fractures of the shaft of the bone, and this, without doubt, in connection with nearness to the articulation, is the reason why they must have been confounded often with luxations. Tumefaction and deformity are much more prominent in fractures produced by muscular contraction than in those by external violence, as by a fall upon the shoulder, the most ordinary cause. On the other hand, mobility and crepitation, while frequent in the latter cases, are seldom present in the former. The direction and state of the fragments are obscured usually in fractures by muscular contraction, but are more easily made out in other cases. Pain on motion is not a constant symptom; but pain on pressure is sometimes an important aid to correct diagnosis. Consolidation takes place in about the usual time. Treatment requires no special directions. Mayor's scarf, or Sayre's bandage, for its simplicity, may be used when immobility seems increasing.
Progress in Medicine.

REPORT ON PATHOLOGY AND PATHOLOGICAL ANATOMY.
By R. H. Fitz, M.D.

GENERAL PATHOLOGY.

Fungi in the Blood.—Riess (Centrbl., 1873, p. 530) takes exception to some of the statements of Birch-Hirschfeld (previously referred to in this Journal), and, after a series of investigations, comes to the conclusion that there are no means, chemical or microscopical, by which micrococci can be distinguished in the animal organism from detritus. In consequence, the assigned importance of the many abnormal elements found in the blood and organs, in infectious diseases, is not possible, as no sure proof of the parasitic nature of such processes has been obtained.

Birch-Hirschfeld (Centrbl., 1873, p. 609), in reply, refers to his published recognition of the detritus referred to by Riess, but still retains his opinion that, in addition, globular bacteria are present, and that their exact nature is to be determined, in part, through chemical reagents. He admits, at the same time, that the parasitic nature of such diseases is not yet assured.

Obermeier (Centrbl., 1873, p. 145) has discovered, in the blood of individuals suffering from recurrent fever, extremely delicate, thread-like bodies, of the thickness of a fine thread of fibrine, and as long as the diameters of from 1½ to 6 or more blood corpuscles. The blood being removed from the patient and the corpuscles allowed to become quiet, it was found that these threads possessed extremely rapid movements. These movements are of two kinds, undulating and locomotive. When locomotion took place, the threads became crooked, circular or corkscrew like; then elongating, they would leave the field of vision either gradually or suddenly. Locomotion ceases after one to two hours; undulation may continue up to eight hours. They are easily to be distinguished from threads of fibrine. These bodies were first seen by their discoverer in 1868, but lack of material has hitherto prevented investigation. Up to the time of publication, they had been found only during the fever, and shortly before or during the crisis, not in the remission. No decision was arrived at as to their nature.

Obermeier (Centrbl., 1873, p. 561) inoculated animals with the blood from patients with recurrent and typhoid fever. The blood was injected subcutaneously, and into the jugular veins of dogs, rabbits and guinea-pigs. The results were negative. Nevertheless, he considers that the presence of the contagium in the blood is not thereby eliminated. Accidental or intentional inoculation of such blood, through cracks in the epidermis, produces no infection. As an explanation for the lack of success in producing the disease experimentally, he suggests that special conditions or preparations are necessary for the reception of the contagium in the living organism.

Wolff (Centrbl., 1873, p. 497) has continued his experiments with regard to the effect of fungi introduced into the blood. It may be remembered that he was unable to conclude that the active deleterious principle of putrid blood was to be found in bacteria. In his present
publication, he gives the results of experiments with the contents of metastatic abscesses and the secretion from gangrenous wounds. In comparing the action of these fluids with that of a fluid in which fungi from the preceding were cultivated, he found that the latter, in the same doses, was by far less deleterious than the former. With the microscope, the same forms of fungi were found in the three fluids. The bacteria were of various forms, a noteworthy observation where special forms of bacteria have been regarded as productive of special diseased processes. In addition, he records that, with Hartnack 10, prismatic bodies were found in the peritoneal exudation of puerperal fever, hardly as large as the diameter of a red blood corpuscle.

Küssner (Centrbl., 1873, p. 497) opposes the view that the microsporon septicum is characteristic of the septic processes, as he finds the same in trivial abscesses. He states that he was able to free fluids from bacteria by filtering through a double layer of filter paper in a glass funnel, whose nozzle was plugged with boiled cotton-wool. The filtrate, as well as the fluids containing bacteria, produced death after injection; the post-mortem appearances were alike—ichorous and purulent infiltration of the cellular tissue, and, finally, abscesses at the point of injection. There was no pathological alteration of the internal organs, nor were bacteria found in the blood, nor in the greater glands of the abdomen. He concludes that the action of the injected fluids depends upon chemical processes of decomposition, independent of the bacteria. A temperature curve, characteristic of sepsin poisoning (Tiegel), was not found.

Inoculability of Cancer.—Desirous of ascertaining the effects of cancer grafts upon the body of rabbits, Hyvertl (Gaz. des Hôp., No. 49, 1873, Allg. Med. Centr. Zeit., 1873, p. 602) undertook a series of experiments. The portions of tumor free from pus, and not far advanced in development, were introduced deep into the tissues as far as the muscular layer.

Inflammation and induration resulted, the latter to be felt five months afterwards as a "tumor." This was surrounded by a tissue rich in vessels, and presented its previous appearance: cancer cells and alveoli at the periphery, granulations commenced towards the centre; at the latter point was calcification. The autopsy showed that neither infection nor general disease resulted. The author concludes that young cancer cells, transplanted from man to animals, do not produce cancer.

Exophthalmic Goitre.—Boddaert (Bull. de la Soc. de Méd. de Gand, Gaz. Méd., 1873, p. 141) experimented on rabbits with reference to the origin of this condition. Ligatures were placed upon the external and internal jugular veins at the base of the neck, and the two cervical cords of the sympathetic were cut. An exophthalmia resulted, continuing several days, diminishing gradually as the collateral venous circulation became developed, and as the effects of the section of the sympathetic disappeared. Exophthalmia following the ligature alone, due to distention of the orbital veins, is much less pronounced. An enlargement of the thyroid is produced by section of the sympathetic and ligature of the inferior thyroid vein between the four jugulars. These experiments, combined with the discovery of lesions of the sympathetic, whose effects are analogous to those produced by section (atrophy of nerve elements, hypertrophy of connective tissue)
in a number of cases of Basedow's disease, are considered as explaining the phenomena of the disease. In exophthalmic goitre, an obstruction to the circulation occurs; the superficial veins, especially of the neck, become swollen; there is a tendency to hemorrhage, an increase of splenic and hepatic dulness, occasional dropsies, edema, and the enlargement of the retinal vessels observed by Graefe. Boddart hence produces this theory of exophthalmic goitre. In the majority of cases, the pulsations of the heart increase in number—120 to 200 even; this may continue for months. The veins are insufficiently emptied during the diastole; a venous congestion results, more marked from a more or less complete paralysis of the sympathetic. The effects become most marked in the eye and thyroid body, from the development of the retro-ocular venous system and the great vascularity of the thyroid. This theory is considered as explaining the observation of Trousseau, where the exophthalmia and the thyroid tumor came on during a night, the goitre disappearing suddenly and returning afterwards; also, the diminution of the exophthalmia and the thyroid body, as the heart beats less rapidly.

**Special Pathological Anatomy.**

*Ulcerative Endocarditis.*—Dr. Lanceraux publishes a paper (*Archiv. Gén.*, 1873, p. 672) endeavoring to establish a causal relation between the paludal poison and the ulcerative, vegetative form of endocarditis. He states at the outset that he has already endeavored to prove that rheumatism is not the source of the vegetative, ulcerative endocarditis occurring in the puerperal condition. His ground being that the anatomical characteristics of the rheumatic and puerperal endocarditis differ, hence they cannot have the same origin. Though in both diseases the mitral valve is by preference affected, in the rheumatic form, the entire valvular orifice is diseased, while puerperal endocarditis is always limited and circumscribed. In the former instance, permanent valvular lesions must occur, while, in the latter, a permanent organization of the new tissue is impossible, its destruction producing a fatal infection, so to speak, of the organism. The object of the present paper is to show that there is a vegetative, ulcerative endocarditis, preferring the aortic valves, and common among people who have had intermittent fever. From its localization, anatomical characters and evolution, it must bear a certain relation to the paludal poison.

A number of cases are reported, the clinical phenomena bearing a resemblance to the disturbances produced by septicemia. In the cases reported, the puerperal condition could not have been a cause, and, as the lesions of rheumatism are regarded as different, this affection must be eliminated from the causes. The symptoms are considered as excluding the latter disease. The pains, existing in certain cases, were of a different character from those occurring in acute articular rheumatism and were attributed to the effect of a general infection. The coincident history of malarial infection in all the cases and the identity of the alterations render it probable or at least worthy of investigation, as a relation of cause and effect. It is possible that alcoholic excess may have aggravated the condition. The disease is distinguished from the chronic aortic affections by the presence of fever. The prognosis is grave on account of the rapid pro-
gress and the tendency to ulceration. The valves once destroyed, a fatal termination results on account of the obstructed circulation and the septicaemia following the destruction. In one of the cases reported, sulphate of quinia produced amelioration.

Brown Induration of the Lungs.—Orth calls attention (Virch. Arch. vol. 58, p. 126) to an alteration of the vessels observed in such a case. The capillaries and larger vessels were filled with pigment masses similar to those occurring in the interstitial tissue. The vessels at times appeared as if actually injected with brown, granular pigment. Artificial injection showed that such portions were completely obstructed. He regarded the appearance of certain communicating vessels as indicative of compensation for this obliteration. Such vessels pursued a more direct course, and had but few collateral branches. The previously described condition of the vessels he considers as indicating that a direct formation of pigment, from the red blood corpuscles, may take place without the mediation of other cells (Langhans).

Inflammation of the Lungs.—Lungenentzündung, Tuberkulose und Schwindsucht. L. Buhl, Prof. &c. München, 1872.


Prof. Buhl’s monograph of 164 pages is one demanding the most thorough attention from all interested in such matters. Whether the views are accepted or not, valuable suggestions are presented, and in such a form that the continued interest of the reader is retained.

Within the space allotted to this report, a complete abstract is impossible. The text appears in the form of twelve letters, and includes the various forms of acute and chronic inflammation of the lungs, together with the author’s ideas as to tubercle, tuberculosis and tuberculous pneumonia, with a final chapter devoted to phthisis.

The distinction between a superficial and parenchymatous inflammation of the lungs holds good only so far as the one or the other condition predominates, the two always co-existing. The alveolar epithelium is regarded as a continuation of the endothelium of the lymph vessels, expanded over the free surface of the alveolar wall, and not as a continuation of the epithelium of the bronchial tubes. The superficial inflammations are those where the products originate in the epithelium, or flow over its surface; the products of the parenchymatous forms are interstitial and peri-bronchial.

The terms lobular and lobar are applied rather to the method of origin and extension, than to the boundary. Lobar refers to primary disease of the pulmonary parenchyma; lobular, to primary disease of the bronchi. Those diseases proceeding from the lymph vessels are not easily divided into these two forms. The chronic forms are particularly distinguished from the acute by the presence of extensive and important degenerative conditions when superficial; by an increase of connective tissue, the formation of cicatrices, &c.; when parenchymatous, interstitial or peri-bronchial.

The acute catarrhal pneumonia of the books is an acute disease, affecting primarily the posterior portion and edges of the lower lobes, presenting the appearances thus described by Rokitansky:—"the finer bronchi and their terminations are not unfrequently the seat of an intensive inflammation, which becomes at once extended over the pulmo-
nary tissue; this appears, generally, in numerous lobular portions, swollen, hepatized or filled with pus." The term catarrhal pneumonia demands a catarrh in the pulmonary tissue, and the presence of a mucous membrane; as the latter does not exist, the term is improper. A catarrh of the mucous membrane of the smaller and smallest bronchi, filling these with pus and mucus, even when extending to the alveoli, cannot be a catarrhal pneumonia; the alteration of the latter is modified and secondary. The catarrhal pneumonia is "a capillary bronchitis, a bronchiolitis, in which the lungs participate through collateral edema, atelectasis, local emphysema and engorgement, as a result of the transfer of the bronchial secretion to the individual alveoli." The edema is merely a collateral phenomenon of the capillary bronchitis; atelectasis and emphysema are not inflammatory.

The bluish-red color of the atelectatic lobules represent a distention of the capillaries with blood when the intra-alveolar pressure has ceased. The lobular nature of the affection is due to the presence of material in the communicating and adjoining alveoli, produced elsewhere, and transferred through aspiration and migration (pus corpuscles, i. e. white blood corpuscles).

Death or recovery may take place. The latter event is based upon the fact that the true pulmonary parenchyma remains intact. Expectoration, fatty degeneration and absorption permit the removal of the products of inflammation and the access of air.

If these changes do not take place speedily, as in feeble children, the aged and in the course of severe disease, certain portions may remain permanently altered, as local emphysema, and, more particularly, atelectasis, in which latter instance, the parts affected may become converted into pigment nodules or cheesy masses. In addition, the plugs in the smaller bronchi and alveoli may remain permanently as cheesy masses. The alterations, when superficial, produced by foreign bodies, bear a very close resemblance to those occurring in so-called catarrhal pneumonia. A rare termination of the bronchiolitis is the dilatation of the alveoli and bronchi, accompanied with atrophy, thereby distinguished from that resulting from other causes, as peribronchitis. Catarrhal pneumonia is, therefore, a capillary bronchitis.

Croupous pneumonia is primary in the parenchyma, secondary in the bronchi.

[To be concluded.]

Convalescence in Typhoid Fever.—Dr. P. W. Latham writes to the Lancet of July 5, 1873, that the only satisfactory answer to the question, When is a patient convalescent from an attack of typhoid fever? is, after the morning and evening temperatures, and especially the latter, on at least two successive days, have remained about the normal point, or between 98° and 99° F. The patient’s tongue may be clean and moist, the appetite ravenous, the patient crying out for food, and the typhoid ulcers still unhealed. The thermometer alone will tell us this; it will probably show, at this stage, an evening temperature of about 101° F., with a morning temperature of 1.6° to 2° lower, and a mutton chop might now be sufficient to induce fresh irritation of the intestinal ulcers, fatal hemorrhage, or perforation.
Bibliographical Notices.

A Practical Manual of the Diseases of Children, with a Formulary. By Edward Ellis, M.D., Physician to the Victoria Hospital for sick children; late Physician to the Samaritan Hospital for women and children; and formerly obstetric physician's assistant to University College Hospital. Second edition. Philadelphia: Lindsay and Blakiston.

The above work is designed, we are informed by the author in his preface, to present concise yet thoroughly practical descriptions of the principal diseases of children. The book comprises 339 pages, and is divided into nine chapters. The various diseases, coming under the head of the respective chapters, are treated of in as many different sections, mostly short ones, being numbered from one upwards.

The first chapter is devoted to general observations on management and diet during the first year of life, with many useful hints as to the best way of examining infants. Appended is a diet table. Chapter second treats of general diseases, the author recognizing five, viz., scrofula, tuberculosis, rhachitis, syphilis and acute rheumatism. Throughout the book, we find frequent reference to these "diathetic states." The prominent part played by the first four in the causation of diseases, as well as in the modification of their course, offering often the most important indications for treatment, nobody will deny; but many of the author's statements on this subject are more theoretical than based upon facts, as, for instance, his description of the temperament and physiognomy peculiar to scrofulosis as contrasted with those in tuberculosis. Dr. Gee is quoted as thinking freckles a sign of much value in the diagnosis of tuberculosis. "Scrofulous deposits," we are told, "consist of albumen, gelatine, fibrine and a little stearine," whereas "tubercle is probably an exudation of the liquor sanguinis, and consists of animal matter, albumen and salts, such as the insoluble phosphates and carbonate of lime, soluble salts of soda and cholesterine." In speaking of the diet during the first year of life, we are told that "it is the children of the rickety and of the rheumatic diatheses that suffer from dyspepsia and 'weak stomachs.' Tubercular children are far harder in this respect, whilst the strumous and the syphilitic occupy a median position." Further on, he says, "it is the child of gouty and rheumatic parents that suffers so often from acidity, and who requires most especially that his food should be alkalinized by lime-water." In another part of the book, we find it stated that "erythema intertrigo is common in the rheumatic diathesis," and, to quote once more, dysuria or painful micturition is spoken of as being "often associated with chronic skin affections and the rheumatic diathesis, and there may be smartish fever and considerable dyspepsia as concomitants." In the treatment of rickets, the author rightly gives to cod-liver oil the most important place, but we fail to see the necessity of its combination with lime-water. Syphilis he divides into a "congenital" and "infantile" variety, the latter applied to what would ordinarily be called acquired. Chapter third is devoted to skin diseases. Many of those here treated could well be left out, as so rare in children as not to be worthy of mention or as
presenting no peculiarities in childhood requiring especial notice in a work upon children's diseases. Psoriasis and leprosy are described under different sections, and we are told that they are often "symmetrical and hereditary." "Scrofula seems to be a disposing cause and a disordered stomach an exciting cause. The disordered stomach gives the first indication for treatment, and we must consequently unload and regulate the excretions of the prime viæ." The advice to "unload and regulate the secretions of the prime viæ" and to "administer saline cathartics" occurs, we think, too frequently in the book, given in a very vague and indefinite way, without any special indications other than the mere fact of the existence of some cutaneous or other disease, and, if blindly followed, might lead sometimes to mischief. Throughout the book, the author refers, when at all, but very briefly and superficially to the pathological anatomy of the different diseases, but we must find fault with such statements as that "eczema is an inflammation of the sweat follicle" and that "impetigo is a suppurative inflammation of the hair follicles" and "is contagious." The three following chapters treat respectively of diseases of new-borns, of fevers, and of diseases of the brain and nervous systems; and chapter seventh, of diseases of the air passages and of the thoracic organs. In the section upon hypertrophy of the brain, the author fails in his attempt to give a description by which the disease could be recognized, nor can we imagine, in case of the existence of such disease, that Dr. Churchill's plan of painting the shorn head with tincture of iodine and the administration of iodide of potassium in fair doses, could be of any benefit. From some of the symptoms given, and from mention of Dr. Elsisser's employment of a small horse-hair cushion for the head to rest upon, a hole being cut for the occiput, &c., it is evident that, partly at least, this disease is confounded with craniotabes. Croup and diphtheria meet with appropriate treatment, and the indications for tracheotomy and the method of operating are carefully laid down. The catarrhal nature of spasmodic croup (spurious croup) is not alluded to, and the author incorrectly associates it with the tubercular diathesis. The author describes a pneumonia of teething with which, we confess, we are unacquainted, "which," to use his own words, "being chronic and accompanied with general wasting but tumid abdomen, and with little cough, at first, is often mistaken for phthisis or mesenteric disease." The cause of atelectasis pulmonum, we are told, "is defective nerve energy from pressure," and its connection with bronchitis in infants is not alluded to. The author gives the astonishing explanation of diminished size of the affected side, after the absorption of a pleuritic effusion, to be "the increased work and consequent hypertrophy of the healthy lung."

Chapter eighth treats of the diseases of the food passages and of the abdominal organs. The classification of the diseases of the digestive organs lacks clearness, and we do not find that careful and thorough treatment that the importance of the subject would seem to demand. In the present state of medical science, it is a matter of some surprise to read that "gastro-malacia is one variety of dyspepsia," * * * "appearing to depend upon a diminished cohesion of the tissues, the result of slow starvation." In the section upon abdominal tumors, the author includes cancer of the stomach, making no

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mention of its extreme rarity in children, telling us that "it gives rise to greater dyspepsia than cancer of the liver, to hæmatemesis and to pain after every meal. Moreover, the percussion is tympanitic when the stomach is diseased, dull when the liver is affected."

Chapter ninth, the last and one of the longest in the book, contains general therapeutical hints and a very large formulary. The prescriptions have been made up with much care, and the few general therapeutical hints at the beginning of the chapter are good.

We have but space to allude simply to the frequency of typographical errors, which should not have found their way into a second edition.

The book, of medium size, is printed upon excellent white paper, the type clear and large. The chapters are well arranged and there is a good alphabetical index at the end of the book. In these respects, it fulfils the object of the author to make it a "handy book of reference upon a class of diseases, presenting peculiar difficulties and yet of the deepest interest because so continually met with in practice."

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This admirable treatise by Professor Parkes of the Army Medical School, Netley, England, was referred to in the "Report on Public Health" in this Journal, in February last. A new edition has since appeared, making the book even more valuable. The portions relating exclusively to military service are now placed by themselves, and the bulk of the volume is devoted to all that pertains to public and private health in the general population. It is a treasury of well authenticated observations, and presents the most complete discussion of the principles involved which has yet appeared in any language.

Every physician, who wishes to be able to give definite replies to the numerous questions referred to him as the guardian of the health of the people, should be able to consult this volume, and be need not fear that any special point, which may be in question, has been overlooked. Moreover, the foot notes and references will point to a complete library of hygiene.

Boards of Health will find this book almost indispensable to an intelligent exercise of their duty.

It is already supplied by our government to all army medical officers, and we wish that means could be found to make it accessible to all who seek information concerning the means of preserving the health of cities and towns.

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Treatment of Enuresis. By Dr. Buyelmann, of Cologne.—The author was induced by an article in the Berlin. Klin. Wochenschrift, 1871, No. 5, to try the syrup, ferri iodidi in a severe case of incontinence urinae. The patient was a young girl, thirteen years old, of nervous temperament and anemic. The principal complaint was the incontinence of urine, so severe as to prevent her from walking any distance from her home without wetting herself. In addition to generous diet, she took, for three weeks, syrup. ferri iodidi, seven grammes ad aq. syrup. simp., æ. fifty grammes; a teaspoonful every two hours. After a week's treatment, there was a marked improvement, and, in two weeks more, she was discharged well.—Berlin Klin. Wochenschrift, No. 6.
Nothing has of late afforded us so much satisfaction as the raid of the United States authorities on certain persons circulating indecent literature.

The largest operator, apparently, is a certain Hunter, who represents various companies, and had offices in Hinsdale, Brattleborough, and Springfield. The others are quacks from the neighborhood of Court street. The Sawyer woman obtained bail, but the rest are in jail and will be tried shortly. We hope that a severe example will be made, for the evil is increasing, and is one which demands to be publicly condemned. Any leniency would be an insult to the self-respect of the community, and perhaps an injury to thousands yet unborn.

The attempt on the part of certain members of the City Council to establish a permanent smallpox hospital on the site in Swett Street, which the city purchased a year ago, is a proceeding which we strongly condemn as open to the gravest sanitary objections. The surroundings of this locality are such that it would be cruel, if not criminal, recklessness to compel patients sick with smallpox to be isolated there. The cases of typhoid which occurred among the convalescents there the past season, are significant as evidence of the insalubrious character of this region, even if this were not perfectly apparent to any one on the most superficial inspection. We feel confident that the Board of Health will have the support of all intelligent physicians in opposition to a scheme so obviously objectionable.

The epidemic of yellow fever is still raging in the west. The details supplied by the telegraph, though not full, show that there has been great mortality and much suffering. The Howard Association appears to be doing good service. We are happy to learn that, at Shreveport, the worst is past, and that no one of sixty-three physicians sent thither has taken the fever. The epidemic is now most severe at Memphis. One of the most painful features is the number of young orphans left destitute. We hope that generous aid will come from more fortunate cities.
BOSTON DISPENSARY.—The annual meeting of the managers of the
Boston Dispensary has been held since our last issue; it seems, there-
fore, a proper time to notice some of the changes that have taken
place in that institution during the year that has just closed.

Owing to a great increase in the duties devolving on the city
physician, Dr. Green felt himself obliged early in the year to resign
the position of superintendent of the dispensary, an office which he
had filled with great credit to himself and with great advantage to the
institution for many years. Dr. A. L. Haskins was chosen his succes-
sor. Soon after his appointment, a number of changes in the practical
workings of the dispensary were recommended by him to the direc-
tors, and at once received their approval.

The apothecary store is now open for the dispensing of medicine
and the receiving of orders, from eight in the morning till seven in the
evening. The women's room, heretofore over-crowded, has been
divided into two rooms, and, consequently, it was found necessary to
add four additional medical officers to the present staff. These
vacancies have been filled by the election of Drs. T. W. Fisher, T.
Dwight, Jr., R. H. Fitz and J. L. Hale. The last two named, were,
till now, on the list of district physicians, and their places have been
filled by the appointment of Drs. J. P. Oliver and A. L. Mason.

A special department for the treatment of skin diseases has been
created and placed under the care of Dr. F. B. Greenough, whose
place on the list of surgeons has been filled by the appointment of Dr.
Thos. B. Curtis, who has recently returned from Europe. Another
department has been opened for the treatment of nervous diseases,
and placed under the care of Drs. S. G. Webber and D. F. Lincoln. A
dental department has also been arranged, and patients are treated
daily from 10 to 11. This department is under the care of Drs. Chas.
S. Bartlett, E. P. Bradbury, J. W. Keyes, T. O. Loveland and F. M.
Robinson. The rooms have been so arranged as to give a waiting-
room for each department. The north-end district has been divided,
and Dr. Walter Channing, Jr., has been appointed to the new district.
In his annual report to the directors, Dr. Haskins has made a most
urgent appeal for a new building, the present being utterly inadequate
for the amount of work daily done in it. It is to be hoped that before
another year closes the new building will be in the process of erection.
The following is a complete list of the medical officers connected with
the institution:

Surgeons.—John Homans, M.D., J. B. Treadwell, M.D., S. W.
Langmaid, M.D., T. B. Curtis, M.D.

Ophthalmic Surgeon.—O. F. Wadsworth, M.D.

Physicians.—J. M. Hayward, M.D., F. I. Knight, M.D., W. F.
Munroe, M.D., C. E. Inches, M.D., J. F. Appell, M.D., R. Disbrow,
M.D., T. Waterman, M.D., H. Tuck, M.D., W. H. H. Hastings,
M.D., W. L. Richardson, M.D., W. E. Boardman, M.D., C. P. Putnam,
M.D., T. W. Fisher, M.D., T. Dwight, Jr., M.D, R. H. Fitz, M.D., J.
L. Hale, M.D.

Department for Diseases of the Nervous System.—S. G. Webber,
M.D., D. F. Lincoln, M.D.

Department for Skin Diseases.—F. B. Greenough, M.D.

Dental Department.—Chas. S. Bartlett, D.M.D., E. P. Bradbury,
D.M.D., J. W. Keyes, D.M.D., T. O. Loveland, D.M.D., F. M.
Robinson, D.M.D.

Apothecary.—F. B. Winn.
Assistant Apothecary.—J. J. Kelley.

A. L. Haskins, M.D., Superintendent.

Clinical Lecture on the Relation which Faulty Closet-Accommodations Bear to the Diseases of Women. By William Goodell, M.D.—The important question of sewage and cesspool diseases, which is now agitating political economists, has a range far wider than those branches of medicine on which I lecture. I shall, however, limit my remarks to that aspect of it which directly concerns the good health, and more remotely, the good morals of women, viz., the relation which faulty closet-accommodations bear to the diseases of women.

In adults, the state of health denotes a state of equilibrium between waste and repair,—between construction and destruction. But the statical condition is one necessarily disturbed by the smallest casting-weight. Hence, very slight indeed may be the cause which deranges the nicely-balanced relation between the functions of the various organs of the body. Thus, by the imperfect and unpunctual performance of the excretory functions, our food becomes our poison. The lengthened detention of feces in the bowels, or of the urine in the bladder, begets a host of disorders, in man as well as in woman. But it is in the latter that they are most manifest. Irregularity or postponement in the evacuations of the body is perhaps the most common cause of uterine and pelvic diseases. For not only are local congestions produced mechanically by the irritation or the pressure from hardened feces, and flexions of the womb brought about by the straining efforts to empty the bowels; but the intimate interdependence between the pelvic and the uterine plexus of veins on the one hand, and the portal system on the other, is at the root of all manner of female complaints. A congestion in the one determines in the other a like condition, which in turn confirms and augments the disorder of the former. It is, indeed, astonishing how quickly a woman’s health declines from inattention to habits of regularity.

Over-distention of the bladder, by drawing up the cervix and by thrusting the fundus backward, is undoubtedly a very common factor in the production of retroflexions and retroversions of the womb. Almost every acute case of uterine displacement and many cases of vesical catarrh are thus brought about. The very worst case of irritable bladder that I ever met with, occurred in a lady who, thirty years previously, had travelled a whole day in a stage-coach without finding a fit opportunity for passing her water.

Again, costiveness is the recognized cause not only of hemorrhoids, of pelvic and uterine congestions, and of disorders of the digestive apparatus, but also of fecal poisoning. For, if diseases breed from bad drainage and defective sewerage from without the body, how much more from bad drainage and defective sewerage within the body! Excretions retained in the body ferment and decompose; the pestilential gases thus generated, and the products of tissue-waste,
being absorbed, degrade the blood, disable nerve-centres, and paralyze
the action of the vital organs. A mischievous reciprocation takes
place, by which the cause and its effects aid and abet one another.
Take for instance the liver; costiveness makes it secrete less bile, and
this torpidity not only causes a uterine congestion, but also reinforces
the habit of constipation. So, in a measure, with every other organ;
blood-disorder leads to morbid nutrition of nerve-centres, and this in
turn still further degrades the blood. Thus is evoked that exaltation
of nervous action which so often becomes turbulent and uncontrollable.
Hysteria, chlorosis, and climacteric perturbations are always linked
with defective haematoasis.

Except as the result of this vicious circle, how else explain the
proverbially bad health of women living in the country, and of the
poorer classes of women in cities? Show me such a woman, and you
show me a costive creature, one whose whole life is spent in an un-
natural struggle with the lower but needful calls of her body. This
evil is in itself bad enough; but, unfortunately, it does not end there.
Upon the good health of the mother, depends the good health of the
child. Feeble mothers beget feeble children—children who are car-
ried from the womb to the grave, or who peak and pine under the
heritage of ill health.

Such, then, being the condition of the majority of American women,
what is the cause? "Probably no single cause," writes a close
observer, "has had so much influence in producing the peculiarly
delicate condition for which women living in the country and in the
small towns in America are notorious, as the discomfort, inconvenience,
and frequent repulsiveness [and, I may add, indecent exposure] of
their closet-accommodations."

The ancients, who were wiser in their generation than we are in
ours, set examples which we in the nineteenth century might in some
respects usefully follow. The cloaca of Rome are still the admiration
of the architect. They were built so firmly as to have resisted the
impetuous torrents of over seven hundred winters. To keep them in
repair, public officers were appointed, who were called the curatores
cloacarum urbis. Even a goddess—the fair Cloacina—was chosen to
preside over them. But with us how different!

In the teeming tenement-house of any of our large cities, there is
usually but one closet, and that invariably a cesspool, wet and foul,
reeking with filth, poisoned by noisome stenches, defiled by lewd
couplets or obscene cuts, indecent from thin partitions and wide
chinks, or from being pre-occupied by one of the opposite sex. Under
such conditions what woman can avoid schooling herself into the habit
of resisting the evacuation of her bowels? In the small houses of
tradesmen and of mechanics, the water-closet is rarely to be found;
nor are the houses of the better classes supplied with this luxury.
The privy is then usually placed at the farther end of the yard, and
approached by a long and unsheltered path. It is, therefore, almost
inaccessible in bad weather or in dark nights, and is overlooked by the
back buildings of all the neighboring houses. To a delicate woman,
the exposure to the weather is a serious inconvenience; to one who is
menstruating, it is a constant menace; while to every refined woman
the exposure to view offers but one of two choices,—either that of
having her sense of modesty blunted, or that of waiting until nightfall
before responding to the calls of nature.
Nor does the condition of the closets in the country present a more
greeable contrast. In many parts of the Southern and Western
States, a clump of bushes, the shelter of a rock, the nearest grove,
offer the only accommodations. But take the more thickly-settled
States; where is the small farm-house whose privy invites rather than
repels? The very name of privy is a misnomer. How seldom is the
building hidden by clumps of evergreens or masked by any other
disguise than that of a euphemism! How often is it not at an em-
barrassing distance from the house,—at the end of a long trail, or, at
best, of a long and ill-kept path, which frequently runs parallel with
a street or a road! How rarely is it ever provided with any other
kind of window than round or crescent-shaped holes rudely cut out of
the door! How commonly are the cracks dehiscent! The door itself
is often without a bolt, often hanging by one hinge,—sometimes
wholly unhung. Through the openings in the seat acrid blasts of
wind sweep up as if impelled by some malignant demon. Now, add
to all this the sickening stench, the conspicuous heaps of filth, the
swarms of unclean flies, and confess that, despite the temerity of the
description, the picture is not overdrawn.

Imagine now broad daylight with its busy traffic, a rainy day or
dark night, the grass wet with dew or the ground covered with snow,
or temperature, perchance, many degrees below zero. Under such
circumstances, what woman can respond to the calls of nature without
putting herself to great discomfort, to great risk indeed if she be
menstruating, or without blunting the edge of her womanly sense of
decorum?

Nor is this last phase of the subject the least important. The shrinking
from publicity in the performance of these functions is neither "prude-
ry" nor "false modesty," but a virtue of which our women may well be
proud. In those countries where woman most disregards it, there is she
least chaste, and there is the license of language least bridled. Whatever
refines the body refines the mind, and vice versá. The one reacts
upon the other for better or for worse. Our forefathers, who scorned
clothing and cleanliness, and who eased themselves, like their cattle,
wherever the desire seized them, were in appetite little better than
cannibals, in temper and morals lower than the brutes. When they
began to wash themselves they began to clothe themselves; and after
the culture of the body that of the mind followed as a matter of course.
Thus soap becomes a great civilizer. "Show me," said the great
Liebig,—or in words to this effect,—"Show me the nation which con-
sumes the most soap, and you show me one which has reached the
highest grade of civilization." So with regard to closets. "Show me," say I, "the nation that gives the most comfort, the most privacy,
the most solicitation, to the evacuations of the body, and you show
me, in refinement, in education, and in morality, the foremost people
on the face of the earth."

I have told you the bane; now, what is the antidote? Clearly, such
closets as invite rather than repel,—closets in which an operation of the
bowels is not tantamount to being buffeted of Satan for a season. In
cities, and in such towns as are supplied with water-works and good
drains, the use of the water-closet ought to become universal. In the
country, where such a luxury can be attained by the rich alone, the
earth-closet is the only substitute; and I cannot too strongly urge
you to advise its use among your patients and neighbors. Set the example by using one yourselves; you will soon get back more than its money's worth of comfort, health and privacy.

Although, at my request, this gentleman has kindly consented to exhibit to you the mechanism of this earth-closet, yet I am not the advocate of his patent, or any one of the patents now in the market. You must select the one which seems to you to meet best all the requirements. I am contending simply for the principle on which these earth-closets are based, and for the moral and hygienic advantages which they offer. A portable closet, like this one, not larger than an old-fashioned arm-chair, can be moved about from room to room, or be put where it will be both private and accessible. Nor will its presence poison the surrounding air, for there is no better disinfectant, no better deodorizer of organic refuse, than the dry earth contained in its hopper. Recognizing this property of earth, and also the laws of health, a wise Deity has, as the Creator, implanted in carnivorous animals the instinct of burying their excrement. As the great Lawgiver, he commanded the Jews to do the same thing. What cats and dogs do by instinct, man should do as well by reason as by divine command. Further: animal refuse thus treated becomes a rich and available manure. Like that fabled giant of ancient mythology, it gains strength and vigor from contact with its mother, earth.—Philadelphia Medical Times.

Intravaginal Auscultation.—A paper has been recently read before the Academy of Bologna by Dr. Verardini, illustrating the application of intravaginal auscultation as an aid to the diagnosis of pregnancy. The instrument employed for this examination is called the vaginal stethoscope. The possibility of this method of auscultation was first pointed out by Maygrier in the year 1825, while its first practical application was made by Nauke four years later, it being employed then to determine the existence of placenta praevia as well as pregnancy. Dr. Verardini maintains that internal or intravaginal auscultation is of great value in diagnosticating pregnancy even in the first month, inasmuch as the stethoscope, when applied to the neck of the uterus, transmits a characteristic sound, described as a faint, prolonged murmur. This sound is readily distinguishable from the utero-placental murmur, which accompanies violent contact of the fetus with the walls of the uterus. The latter sound is faint and short, resembling that given by the stethoscope when applied to aneurismal tumors, or to the large arteries, and when once heard can never afterwards be mistaken.

It is, of course, essential to determine at the outset whether any pulsating tumor or enlarged bloodvessel is situated near the neck of the uterus.

Where other indications of pregnancy have been obtained, and yet the above described murmur cannot be obtained, in that case the diagnosis will, of course, be doubtful, and there will be strong grounds for suspecting that some disease of the uterus is present.

In many instances, it will sooner or later transpire that some disease of the ovum has involved the death of the embryo or fetus.
HOMOEOPATHIC PILULES PROVED A SHAM.—The London Practitioner for April, 1873, gives account of recent examinations, by chemical analysis, of some of the more commonly-used homeopathic pilules. The average weight of each was 0.6 grains; and, in the strength known as the second dilution, should contain 0.00006 of a grain of the drug. This quantity, in the case of the drug chosen, is fairly within the reach of analysis. The third dilution places the drug beyond the reach of analysis.

In sulphate of copper pilules, no copper could be detected in a sample of 100 pilules, nor in another sample of 200 pilules. As little as 0.0001 grain would have been detected, if present, and in these samples there should have been 0.006 gr. in the first, and 0.012 grain in the second.

In 200 corrosive sublimate pilules, less than 0.0005 gr. was found, whereas 0.012 grain should have been present.

No strychnine or atropine could be detected in 300 nux vomica and belladonna pilules respectively, though the tests are of extreme delicacy. The pilules were from two leading homeopathic pharmacists.

Of course there cannot be any effect from the taking of such pilules, except what is due to imagination.

**Correspondence.**

**BROMIDE OF POTASSIUM.—LARGE DOSES AND SMALL.**

MESSRS. EDITORS,—While reading Anstie's capital work on Neuralgia, lately, I came, on page 242, to the following paragraph:—"Having decided that bromide of potassium is the proper remedy, we must use it in sufficient doses. Not even epilepsy itself requires more decidedly that bromide, to be useful, shall be given in large doses. It is right to commence with moderate ones (ten to fifteen grains), because we can never tell, beforehand, that our patient is not one of those peculiar subjects in whom that very disagreeable phenomenon—bromic acne—will follow the use of large doses. But we must not expect good results till we reach something like ninety grains daily."

I have frequently seen it insisted that large, even very large, doses of the bromide were necessary for the control of neuralgia. But I feel myself constrained—although with diffidence—to enter my protest against this dictum. A large proportion of neuralgic cases are developed in enfeebled constitutions, where full depressants cannot be otherwise than injurious. In fact, Dr. Anstie himself recognizes, more fully than any other author I know, the great advantages of a full, generous diet, and even cod-liver oil. In such cases, I believe that the beneficial results of the bromides may be obtained with very small doses. If so, anything larger is, of course, superfluous, and therefore positively injurious. I have had many neuralgic cases, in persons of middle age and onwards, as well as some younger ones who were in an anemic condition, who derived the best benefit from five-, six-, and eight-grain doses, repeated four times daily, persistently, for weeks. And, in several instances, I came down to these doses, finding that they derived as much benefit as they had previously done from larger ones. For I believe in the principle of employing the smallest possible dose to secure the desired effect. In other cases—of this class, remember!—having begun with small doses, and being impatient of tardy results, I have increased them; but, almost invariably, I have repented my impatience (on getting no additional benefit), and have gone back. And, in at least two or three cases, the comparative results have been so marked as to lead patients to point out to me the advan-
tage of small doses. Even granting that they were intelligent people, such observation is remarkable, and must count for something. I therefore beg that, for this class of neuralgics, small doses of the bromides may have a fair and patient trial, and I thoroughly believe that they will bring to the physician increased satisfaction, and to the patient increased benefit.

ALEXANDER R. BECKER, M.D.

DOWN EAST, Sept. 25th, 1873.

MESSRS. EDITORS,—The summer has gone at last, and the last of our city visitors has gone home. One has somewhat less to do in haste, by night, in the village. Green apples don't hurt country boys so much as they do city boys, and one is not so frequently called to the country boy with cholera morbus. Then, again, our population has fallen off about a third. These things considered, it isn't strange that I should think a little about the differences in practising among the different classes.

Down at the principal tavern, hotel we call it now, there have been very many ladies from New York, Boston and Philadelphia. Several of these, I noticed repeatedly as having what I called acne on their chins. Two of them, sisters, had it upon their cheeks also. After exposure to the sun, their faces became inflamed, and I was asked to look at them. They, and their mother, started with horror when I told them that they were not careful to wash their faces thoroughly. It seems that a large proportion of ladies in good society don't wash their faces. When I say "don't wash," I do not mean that they never use water; but they never use soap and water. Now you can't make a clean skin without both; and especially if you are applying some medicated wash to your skin every night at bed-time. The objection to soap with the water, I find to be, that its makes one's face shine, and everybody would notice it. Now, I tell these young ladies that our country girls wash their faces with soap, and generally keep clear of pimples. The difference appears to be this. The country girl has a clean face, which shines, without pimples, and so a stranger knows that she washes her face. The city girl has a dirty face, with pimples, which don't shine, and the stranger knows that she don't wash her face. It's a matter of taste, perhaps, but I'd rather my girl should have a clean face.

I am very fond of tomatoes. They don't ripen here till very late, and I've been in the habit of sending down for them early. To my surprise, a lady was shocked this summer, because I advised her to eat tomatoes. "Tomatoes—why, they produce cancer." This was strange. I never knew it before. For thirty years, that I have been in practice, I have eaten them. I raise them in my own garden. I lay in a stock of canned ones from Boston every fall. And here, I've been feeding wife and children on this cancer-producing vegetable, summer and winter, for years. No signs of cancer yet, and I am going to try it a little longer.

Did you ever notice that many doctors think those things unwholesome which they don't like. "Veal is very bad, difficult of digestion," says one. "Mutton is very unwholesome," says another. I find both of these gentlemen eat roasted pork. Just so with some of their patients. Any bad feeling is put off upon some poor, unfortunate, innocent article of diet. That pain below is attributed to the boiled parsnip eaten at dinner-time. The frosted plum-cake and ice cream of 10, P.M., had nothing to do with it.

I remember, many years ago, you had an artist in Boston, whose name was Johnston, I think. He used to publish, annually, what he called "Scraps." One of these books had a picture of a steamboat scene. If I recollect right, it was called "Natural Cascades; Point Judith." A poor unfortunate, leaning over the rail, having a very distressed face, is represented as saying: "I very imprudently ate a little dry toast for supper, and it never did agree with me."

Wouldn't it be as well to take all the preliminaries into the account, in finding the reasons for different ailments?  

RUSTICUS.
Dr. H. H. A. Beach has been elected President of the Boylston Medical Society of Harvard University.

The Connecticut River Valley Medical Association holds its October meeting at Brattleboro', Vt., Wednesday, Oct. 29th.

Dr. O. F. Wadsworth has been appointed ophthamal surgeon to out-patients at the Massachusetts General Hospital.

The business of Slaughtering Cattle, in private butchering establishments, in the midst of London, begins to be looked upon as a nuisance; and a committee of the House of Commons has been taking evidence concerning it, and has reported that slaughtering is a "noxious" business, which, ought, with its allied industries, to be confined to centralized establishments away from thickly settled metropolitan districts.

The Smallest Angle of Distinct Vision.—Country Doctor's spider web has attracted much attention. We have received several replies, but as the ground is pretty well covered by "Mote," we do not publish them, though they are excellent. We hope our readers will observe how familiar a subject may furnish interesting and instructive debate, and will follow Country Doctor's example in communicating any similar observations they deem of interest.

The XIXe Siècle relates of Dr. Nélaton that he was accustomed to say:—"If you have the misfortune to cut a carotid artery when performing an operation, remember that it takes two minutes for syncope to supervene, and as many more before death occurs. Now four minutes are four times the time required for a ligature, provided you don't hurry yourself—never hurry yourself." The Temps says:—"It is related that when he began his studies, he worked with such ardor that he often refused himself the time necessary for sleep. He procured a plank, some five or six feet long and forty centimetres broad, the extremities of which he placed on two chairs. He lay upon it, holding his book open above him. It is said that in this position the want of sleep is less readily felt. When, in spite of him, his eyes closed and the book fell, the shock disturbed his balance, and he followed the book. The shock aroused him, and he got up and begun his work again."

The Epidemics.—Many cases of sickness are reported in Davenport, caused by the use of cholera preventives when they were not necessary. A young girl who was driven through the cholera-infected district of Davenport, and jokingly told that she would be sure to catch the disease, was attacked with cramps, collapse and discoloration, and died in a short time, a victim of the power of mind over matter.

"A strange and fatal disease, resembling fever," is reported at Kelton, in Utah. Persons die in a few hours after being attacked.—Phil. Med. and Surg. Reporter.

Duration of Menstruation.—Some observations made by Dr. Cohnstein prove that the average duration of the menstrual function is thirty-one years—that in women who have menstruated early, before 13 years old, it lasts three years longer than in those who menstruated after 17. The regularity of menstruation seems to have no influence on its duration. Married women have a longer menstrual period than the unmarried, lasting from twenty-nine to thirty-four years, and amongst the pluriparous the period is longest. The catamennial functions are longest with women who have menstruated early, who are married, who have had more than three children, who have nursed and have been last pregnant between 38 and 42 years of age.—Dublin Medical Press and Circular.
THE MALADY OF THE FIRST NAPOLEON.—The following interesting letter, along with a lock of hair, has been recently discovered by Major Young, of Linlithgow, Scotland. It was written to his father by Dr. Short, principal medical officer at St. Helena at the time of Napoleon's death. *St. Helena, 7th May, 1821. You will no doubt be much surprised to hear of Bonaparte's death; he expired on the 5th of May, after an illness of some standing. His disease was cancer in the stomach, that must have lasted some years, and been in a state of ulceration some months. I was in consultation and attendance several days, but he would not see strangers. I was officially introduced the moment he died. His face in death was the most beautiful I ever beheld, exhibiting softness and every good expression in the highest degree, and really seemed formed to conquer. The following day, I superintended the dissection of his body (at this time his countenance was much altered), which was done at his own request, to ascertain the exact seat of the disease (which he imagined to be where it was afterwards discovered to be), with the view of benefiting his son, who might inherit it. During the whole of his illness he never complained, and kept his character to the last. The disease being hereditary, his father having died of it, and his sister, the Princess Borghese being supposed to have it, proves to the world that climate and mode of life had no hand in it, and, contrary to the assertions of Drs. O'Meara and Stobo, his liver was perfectly sound; and had he been on the throne of France instead of an inhabitant of St. Helena, he would equally have suffered, as no earthly power could cure the disease when formed."—British Medical Journal.

NOTES AND QUERIES.

The English "arrest" outbreaks of fever by official visitation—e.g.:—"Enteric fever," says the London Lancet of Sept. 20th, "has broken out in several parts of Birmingham. Another visit to the town by a Local Government inspector will probably be necessary."

Are there any of the Philadelphia University degrees existing in Boston? The questioner would like to see one.

Castoria. Castor-oil Capsules.—These articles have been extensively advertised. Will some correspondent of the Journal, who has used either of these articles, tell what he knows concerning them, including their manufacture?

Died,—In this city, Oct. 7th, Wentworth H. Quigley, M.D., aged 31 years. At Leipzig, September 8th, Professor Czernak.

Mortality in Massachusetts.—Deaths in fifteen Cities and Towns for the week ending October 4, 1873.

Boston, 159—Charlestown, 16—Worcester, 7—Lowell, 22—Milford, 4—Salem, 17—Lawrence, 16—Lynn, 12—Fitchburg, 4—Taunton, 1—Newburyport, 4—Somerville, 6—Fall River, 32—Haverhill, 7—Holyoke, 6. Total, 313.

Prevalent Diseases.—Consumption, 49—cholera infantum, 32—typhoid fever, 23—pneumonia, 18—scarlet fever, 14—diabetes and diarrhea 14.

George Derby, M.D.,
Secretary of the State Board of Health.

Deaths in Boston for the week ending Saturday, Oct. 12th, 123. Males, 61; females, 62. Accident, 4—suicide, 1—apoplexy, 2—inflammation of the bowels, 2—disease of the bowels, 1—bronchitis, 1—inflammation of the brain, 1—disease of the brain, 4—cerebral meningitis, 2—cyanosis, 1—cancer, 2—cholera infantum, 12—consumption, 18—convulsions, 4—ramp, 2—delirium, 2—diabetes, 3—dropsy, 1—dropsy of the brain, 1—dysentery, 3—diphtheria, 1—erysipelas, 1—scarlet fever, 6—typhoid fever, 8—disease of the heart, 5—homicide, 1—disease of the liver, 3—congestion of the lungs, 1—inflammation of the lungs, 6—marasmus, 6—old age, 1—paralysis, 2—rheumatism, 1—tumor, 2—stricture of the urethra, 1—whooping cough, 1—unknown, 5.

Under 5 years of age, 48—between 5 and 20 years, 11—between 20 and 40 years, 30—between 40 and 60 years, 21—over 60 years, 13. Born in the United States, 86—Ireland, 25—other places, 12.
Surgical interference to relieve intestinal stoppage, though often discussed, is rare. The history of the following case, though unfavorable in its result, contains some facts which may be of use in similar cases. To add to the experience of so unusual an operation, I conceive to be the duty of all.

J. Y., a little boy, seven years of age, was suddenly attacked, according to the parent's account. The symptoms were pain in the abdomen and obstinate constipation; followed by vomiting, tympanites and tenderness. A physician treated him at first for the constipation, with castor oil, large enemata, and other cathartics. The medicines were vomited; and nothing came from the rectum but the enemata.

On the fourth day of the sickness, he was seen by Dr. J. G. Blake. The symptoms were the same. Dr. Blake gave no cathartics, but a warm enema of two quarts, and hot fomentations to the abdomen. The following day he asked me to see him, with a view to using puncture to relieve the tympanites. The child was sitting up straining at stool, but nothing came from the rectum but a little clear serum. The belly was enormously distended; and a huge coil of intestine, supposed to be the colon, revealed itself in outline across the abdomen. There was general tenderness, but not very great. Not much retching. No tumor or hard spot was felt in the abdomen. The child's general condition was not so feeble as might have been expected.

Dec. 30, 1871.—He was taken to the hospital, and repeated punctures made into the distended intestine, with the aspirator. A good deal of foul gas came away. The abdomen relaxed; the child appeared relieved, and was able to retain nourishment. He was fed upon small quantities of milk and lime water, a little sherry, and opium. Hop-fomentations to abdomen.

Dec. 31.—He rested better last night, and retained his food. But to-day the abdomen has filled up again, and the distress from
the distention has returned. The punctures were repeated with as good result as before. Treatment was continued the same.

Jan. 1, 1872.—A little worse; no relief to the bowels. Is kept a little under the influence of opium; retains his food. The question of an operation was mooted, but I was reluctant to undertake it.

Jan. 2.—The case had now reached the eighth day, since the attack. The child was obviously failing. Distention and distress great. No passages downwards of fluids, or flatus. It was clear that the obstruction was not to be relieved by ordinary measures. There was, however, as yet, none of the collapse which indicates mortification; nor were the symptoms of abdominal tenderness very acute. An unfavorable prognosis was given, and the parents were very urgent for an operation. Seconded as they were by medical advice, I consented to try this last expedient, without, however, holding out much hope to them.

Operation.—The child was etherized; and the abdomen opened by a vertical incision. The intestines were so distended that they concealed the cavity of the abdomen, and prevented any search for the stricture, through this incision. A cross incision was therefore made, and the abdomen explored with the hand. There was present a moderate degree of peritonitis. No effusion in the abdomen, either serous or fecal. The puncture marks in the intestine were seen, closed up, without extravasation, or external redness. The obstruction was found in the ileum, just above the cæcum. The ileum was much distended above the point, but empty and collapsed below, and so was the large intestine. There was no invagination, or intussusception. The ileum was twisted and held by a band of adhesion which looked old. This was easily severed, and the bowel untwisted. Air immediately passed through, and there followed, at once, an enormous liquid and gaseous discharge per anum.

The abdomen was now closed as rapidly as possible, warmth applied and stimulants given. The abdomen was closed in the more readily, since the bowels sank down after the discharge.

The child did not rally, but died, in a state of collapse, after three hours.

The instructive points in this case are:—

1st. That when we open a tympanitic abdomen, we had better puncture the intestines with the aspirator, or we shall be obliged to make a crucial incision. There might, however, be more difficulty in promptly finding the obstruction, if we had not the distended bowel to guide us to the stricture.

2d. Punctures with the aspirator do not cause extravasation, or inflammation; neither do they afford permanent relief in tympanites.

3d. Immediate resumption of the peristaltic movement of the bowels, as soon as the stricture was relieved.

4th. The operation was done too late. Would it not be a hope-
less proceeding at any rate? Has it ever succeeded? Mr. Hutchinson, of London, has recently opened the abdomen of a child, where the symptoms of intussusception were very marked, on the tenth day. He drew out the invaginated bowel, and the child recovered.

"For intussusception and strictures of the small intestine," says Mr. Bryant, in his "Practice of Surgery," "there is little to be said in favor of operative interference. The cause of the obstruction, in such cases, is within the intestines themselves, and not outside. But for internal strangulations, in which the bowel is obstructed by some solitary band, omental, mesenteric, or otherwise, the same cannot be said; for, granting that a diagnosis can be made, and its almost certainly fatal termination be accepted, the question of operation becomes a simple one—for the cause is without the bowel and remediable. Ought the operation to be attempted? or is the patient to be left to die unrelieved? I have no hesitation in giving it as my opinion, that an operation is justifiable, under these circumstances; but only when the diagnosis is fairly clear."

Dr. Brinton, in 600 cases of intestinal obstruction, found that 43 per cent. were from intussusception; 31 per cent. from bands; 17 from stricture, and 8 from torsion. In most of these, surgical relief could have been given.

The same authority estimates that obstructions of the intestines cause about 1 in 280 deaths from all diseases. In obstructions due to bands, the small intestine is the seat of the trouble in 94 per cent. of the cases. But in obstruction, due to organic strictures or tumors, the large intestine is the seat in 87 per cent. of the cases. In intussusceptions, the ileac, or ileo-cæcal give 84 per cent. of all. This is an affection more peculiarly of infancy and childhood. It is well known, also, that invaginations are very frequently found after death in young subjects, without having given rise to fatal symptoms. They are probably temporary, and become disentangled. Of 300 children examined by Louis, the greater number had two or three volvuli, without inflammation, and there was no history of symptoms during life. Rokitansky considers them produced in the death-struggle, or the rigor mortis.

The question of differential diagnosis between bands and invagination is important in reference to the trial of operative interference. The difference is often clearly marked, but not always. Dr. Pagge* gives the following symptoms of band:—"The sudden and definite onset of the illness; the occurrence of collapse at its beginning; an early age; the severity of the pain, generally referred to the umbilicus; the absence of precursory symptoms; the absence of tumor, hæmorrhage, or dysenteric symptoms, such as are seen in intussusception; and the absence of the intensity and rapidity of the acute form of volvulus."

Mr. Gay† has collected 148 cases of strangulation by band. In

* Guy's Hospital Reports, 1858.
† Transactions of the Medical Society of London. 1861-2.
band, vomiting is constant; in intussusception, it often ceases. In band, constipation is the rule; in invagination, diarrhœa, bloody and mucous stools. In band, abdominal distention is an early symptom; in intussusception, it may never exist. In the latter, a distinct tumor may be felt. In both, opium should be freely given.

In intussusception, the proper treatment appears to be inflation, which has sometimes succeeded; and an operation may be a final resort.

In band, we can have no resource but an operation. It is an internal strangulation like a hernia, hopeless unless the stricture can be removed.

Abdominal surgery has been so far advanced in comparative safety by the experience of ovariotomists, that Dr. Otis, in the exhaustive History of the Surgery of our late War, ventures to predict, that in gun-shot wounds of the abdomen, with pressing symptoms, the practice of abdominal section, search for the ball and prevention of extravasation may eventually become common, and more successful than the fatal inactivity now the rule. In like manner may we not look forward to an increasing percentage of recoveries in operations to relieve intestinal obstructions—a ratio of success comparative to our early and accurate diagnosis?

In a case of such hopeless nature, it is painful to any physician of sensibility to stand by and do nothing, when an examination, post-mortem, reveals the cause of death to be purely mechanical, and capable of relief from a touch of the finger, could it have been rightly applied.

TREATMENT OF CONGENITAL ATELECTASIS PULMONUM BY STEAM.—The author considers the greatest danger for the life of the new-born infant to be the lowering of the temperature of the body, caused by incomplete decarbonization of the blood and by bronchial catarrh. This danger, according to the author, can be removed by the application of external warmth by making the temperature of the air inspired sufficiently high. The air, however, must be moist, which can be most easily effected by placing the child in a steam bath, a tent being made with blankets, and steam developed underneath it by means of a vessel containing boiling water which must be often renewed; or, by means of a boiling apparatus so arranged as to keep the temperature 26–27° C.; at the same time, care must be taken that there be always sufficient circulation of air therein. The temperature of the bath should, for the first days, not be allowed to go below 25° C., and at no time go above 30°. As to length of time to keep the child in the bath, this depends upon the severity of the case; sometimes as many as 8–14 days are required. The temperature is to be gradually diminished, and the child to become accustomed to the temperature of the room which should at no time be a very low one. The author claims to have seen very good results from this treatment.—Allgem. Med. Central Zeitung.
Progress in Medicine.

REPORT ON PATHOLOGY AND PATHOLOGICAL ANATOMY.

By R. H. Fitz, M.D.

[Concluded from p. 383.]

The term desquamative pneumonia may represent three degrees. The lowest degree appears in severe general diseases as a consecutive desquamative pneumonia, under those conditions where parenchymatous alterations of the heart, liver, kidneys, &c., occur, and might, in like manner, be called parenchymatous pneumonia.

It is generally double, diffuse, lobar, affects the bronchi secondarily, and may be found in the anterior and upper parts of the lungs as well as in the posterior and lower portions. If tolerably general and distinct, the lungs are enlarged, filled with blood, with isolated, punctate sub-pleural and parenchymatous extravasations. They are oedematous, and do not collapse, barely even on section. Serum, containing minute air-bubbles, flows from the cut surface, and delicate elevations are presented, the projecting walls of the empty alveoli. The tissue is flaccid and friable. With the microscope, one finds abundant alveolar epithelium, swollen, rounded, finely granular, the granules in part protein, in part fat, the latter rapidly predominating. From the condition of the epithelium, arises the term, such being entirely analogous to the changes occurring in the consecutive parenchymatous nephritis. Pus corpuscles are rarely found; they then arise from the co-incident catarrhal bronchiolitis. Pleurisy is absent, and there are no fibrinous plugs. A speedy or protracted convalescence may occur; likewise death.

In protracted convalescence, a chronic fatty degeneration of the epithelium occurs. Acute atrophy of the lungs may also take place, when "the pleura is not adherent, and there is a complete absence of air in the pulmonary tissue, an unusual laxity, with extensive moisture, a smooth surface on section, a brownish-red color mixed with gray, a more or less dense consistency, cylindrical dilatation and approximation of the acartilaginous bronchi, with livid redness of their mucous membrane."

A special form of parenchymatous pneumonia is that where the exudation follows the course of the interlobular and sub-pleural lymph vessels, distinguished from desquamative pneumonia in that its course is accompanied by pus formation. This process is most frequently seen in pyæmic, new-born infants, infected by the mother suffering from puerperal fever. It also occurs in adults dying with pyæmia not dependent upon embolism.

Another degree is primary, genuine desquamative pneumonia. Its relation to the consecutive form is analogous to true Bright's disease, as compared with the renal affections occurring in some general disease. It is generally seen at an advanced period (four to six weeks or later), and is usually more fully developed in the upper parts, advancing downwards. In cases of six or eight weeks' duration, the volume and weight of the diseased lungs or lobes are considerably increased, the surface smooth, dull, covered with cuticular fibrine or united by organ-
MEDICAL AND SURGICAL JOURNAL.

ized adhesions. The pleura is swollen, presenting here and there ecchymoses, especially over the lower lobes. The lungs do not collapse, even on section; the elasticity is diminished or absent. The friability is increased, even to diffused softening. The cut surface shows the lobar diffuse expansion of the alteration, a more or less diminished, in parts even complete absence of air, and a feeble granulation. The last condition is due to the thickened inter-alveolar parenchyma. Considerable blood is present. The longer the process has persisted, the greater the abundance of granular pigment, whereby the tissue is slaty-gray or black. On scraping the surface, a slight amount of gelatinous fluid is obtained, bloody and opaque from the presence of numerous cell elements. Under the microscope, one finds exfoliated epithelium from the alveoli and bronchi, fatty degenerated, often containing brown or black pigment. Neither pus, mucus, nor coagula are present. The expectoration, even in the first week, is characteristic; that, too, where the symptoms might suggest croupous pneumonia. One finds abundant alveolar epithelium, with occasional ciliated epithelium. The longer the duration of the disease, the greater the abundance of the epithelium, granular and pigmented corpuscles. Free fat granules and free nuclei are also present. Later, the alveolar epithelium undergoes a myeline degeneration. The enlarged, rounded cells become granular corpuscles, the granules being dull, their outlines indistinct, the cells appearing as pale, clear bodies. The pulmonary epithelium shows nucleic proliferation, with newly formed cells of various size and shape. In croupous pneumonia, such a degeneration occurs towards recovery. Stellate and spindle cells are also obtained from the cut surface. The pigment is often extremely abundant. The alveolar framework is thickened by the new formation of tissue.

Though this disease is generally fatal, it is not always so. Complete recovery may take place. A protracted course may be accompanied by chronic fatty degeneration of the epithelium, in one case extending over a year when death occurred, the clinical symptoms of pulmonary phthisis being present.

A second result of genuine desquamative pneumonia is cirrhosis of the lungs. In this case, the development of the pulmonary connective tissue predominates by far over the superficial epithelial alterations. The term is applied when the connective tissue appears "as fibrous cicatrices or tumors, in which the alveolar parenchyma and the minutest bronchi are enclosed, obliterated and destroyed." At times, muscular cells predominate to such a degree as to demand the term muscular cirrhosis. This connective tissue may be pigmented, or gray and translucent; in the latter instance, generally combined with the preceding form. These cirrhotic nodules may become ossified.

Cheesy pneumonia is a result of the genuine desquamative pneumonia, and is the highest degree of the same, terminating in necrosis, and is acute, subacute or chronic. The cause of the frequency of cheesy pneumonia is found in a proliferation of peri-arterial tissue, in addition to the development of embryonal tissue in the purer forms of genuine desquamative pneumonia. In the subacute and chronic forms, one finds evidence of retrograde or final processes, either a return to the normal condition in the desquamative portions or cirrhosis, chronic fatty degeneration and the formation of cavities. As peri-bronchitis is seated in the adventitia of the acartilaginous finer and finest bronchi,
it deserves the term peri-bronchiolitis. There is a simple form, without the production of pus, and a purulent form accompanied by such.

Though the tubercle belongs to the lymph system, and is analogous to a lymphoid organ, it represents a peculiar sort of lymphoid formation, in that the protoplasm of its giant cells becomes firm, the substance cementing the nuclei becomes carniﬁed, its connective tissue periphery becomes ﬁbroid. Regarding the connective tissue cells as the forerunners of ﬁbrillary connective tissue, and of undeveloped endothelium, a special irritament stimulates them to produce the giant cells, and hence the remaining constituents of the tubercular lymphoma. Thus the tubercle may develop from the connective tissue cells (Langhans) and the endothelium (Rindfleisch, Klebs). The tubercle may become entirely absorbed. Small tuberculous cavities may follow the cheesy degeneration of tubercles; calcification may also occur. The seat of the tubercle is always wherever connective tissue lymph vessels and small arteries; with lymphatic sheaths, are present, and therefore exists in the inner ﬁbrous layer of the mucous membrane of the larger bronchi, in the wall of the bronchioles and in the interlobular connective tissue of the lungs, even in the walls of the alveoli. The acute miliary tubercle of the lungs is, clinically, essentially a local disease, a desquamative pneumonia, distinguished from the pure form only by the fact that giant cells appear beneath the proliferating epithelium of the alveolar walls; therewith the tubercle, from the beginning, attains the interior of the alveolus, and, later, through local infection, miliary tubercles may become developed in the swollen frame-work, provided with formative connective tissue elements. Miliary tuberculosis is always acute, advances not only from the apex downwards, but from the alveolar parenchyma towards the bronchioles. This peculiarity belongs to desquamative pneumonia also, and is equally true of the parenchymatous affection, whether tubercles are developed in it or not. Almost always an acute, punctate, cheesy, lobular pneumonia develops in the nearest alveoli; hence the larger yellow miliary tubercles of the lungs are tuberculous lymphomata, with central degeneration, surrounded by degenerating and degenerated desquamated epithelium of the neighboring alveoli. This condition is a subacute miliary tuberculosis. The chronic form is the result of the acute, when retrograde changes in the entire pulmonary parenchyma occur, in addition to the punctate caseation.

Hence, a peribronchitis nodosa is a chronic miliary tuberculosis. In fact, there is no other tuberculosis of the lungs than the acute miliary form, which may extend by numerous acute secondary growths. A secondary capillary bronchitis may occur, but not always. It may be so slight that cough is absent. If this be present, microscopic examination of the sputum will present characteristic evidence.

The theory that miliary tuberculosis is a specific disease, is based upon the fact that a cheesy deposit is almost always present in the body. This cheesy deposit originates from earlier completed inﬂamatory conditions. It must not be completely encapsuled, surrounded by ﬁrm ﬁbroid tissue.

The presence of tubercles in the immediate vicinity of the nodule (infectious through vicinity), as well as the simultaneous appearance of the miliary tubercles in the various organs.

The seat of the miliary tubercles in the connective tissue containing lymph vessels.
The analogy of the histological structure with that of the normal lymphoid organs, even in the physiological condition (not functional) which calls them into life.

Tuberculosis, as an infectious disease, is not single (miliary carcinoma).

The immediate inoculability from one human being to another (not inheritance).

Tuberculosis, as a rule, does not occur in company with other infectious diseases.

Finally, the results of the inoculation of animals.

Acute miliary tuberculosis is co-existent with desquamative pneumonia, not necessarily cause or result of the inflammation. It is, locally considered, an inflammation, with the development of tubercles, and the tubercular lymphomata may be found in cheesy cellular infiltration.

Only those inflammations should be called tubercular which bear, not accidentally, but inherently and necessarily, the condition of producing tubercular lymphomata, simultaneously with the appearance of the inflammation, which, however, remains limited to the corresponding inflamed portions of tissue. Hence, of the various inflammations of the lungs, the cheesy pneumonia alone deserves the name of tubercular inflammation.

Tubercular pneumonia is primary, acute; miliary tuberculosis is secondary, infectious. The former is a constitutional disease, hereditary, and a tuberculous inflammation may occur in almost all the tissues and organs of the body. The person with a tuberculous constitution is one whose organic activity has a tendency to respond to slight irritation by an inflammatory exudation unusually rich in cells. The irritant is constitutional, not infectious, as in miliary tuberculosis, and the tubercular pneumonia is merely an enhancement of the genuine desquamative pneumonia. This exudation must have a tendency to caseation.

Under pulmonary phthisis, is comprehended the advancing destruction of the respiratory organs, and, more particularly, the decay and emaciation of the body, caused by such an encroaching lung disease. The causes are, first and foremost, parenchymatous or desquamative pneumonia, allied to which are the peri-bronchitic inflammations.

Regarding acute miliary tuberculosis as a form of phthisis, it would be an infectious phthisis. Tuberculous pneumonia would be an inflammatory phthisis. Infections and inflammatory phthisis are both embraced under the term pulmonary consumption, for the desquamative pneumonia is common to both. Both are distinguished from each other in that the infectious phthisis never creates destruction, while the inflammatory form seldom advances without ulceration. Pulmonary consumption is either primarily inflammatory or secondarily infectious. Only the primary, inflammatory form is constitutional; the latter runs an acute or chronic course.

The individual constitution is merely one factor in the development of phthisis; it is phthisis latent. External causes must also be present; the effect must be parenchymatous irritation and inflammation of the respiratory organs.

Catarrhal and croupous pneumonia and chronic bronchial catarrh do not lead to phthisis. Catarrhal affections of the pulmonary organs
become more frequent as one leaves the tropics for the higher latitudes; at the same time, the northernmost parts of the earth possess a certain immunity from phthisis. On the contrary, the tropics show the greatest frequency and the greatest rapidity in its course. So with regard to elevation. High table lands and mountains are the homes of catarrh and bronchitis, while a height of 2000 feet above the sea level forms the limit for the occurrence of phthisis. As regards the atmospheric influence, the temperature of the air and moisture play the most important parts. Sudden, extreme and frequent changes of temperature prevent compensation on the part of the body. Hence, the temperature of the air and its rapid changes must be regarded as the occasional causes of inflammatory phthisis, and in most regions where phthisis is prevalent there is a high degree of moisture.

Friedländer's investigations are experimental, a pneumonia being produced by section of the vagi (Traube), as a result of which the buccal fluids enters the lungs. An acute inflammation of the lungs follows, with a regular typical course. Examination with the microscope, six hours after the experiment, shows a grumous or thread-like mass filling the alveoli, containing more or less white blood corpuscles; in addition, granular corpuscles, at times containing pigment. These cells differ from those arising from the bronchial wall, and are regarded as arising from the normal epithelium of the alveolar wall, these having become more granular, thicker, and finally detached. An examination made nine hours after the experiment, shows that the fibrous wall of the alveolus remains intact; the interstitial tissue surrounding the vessels and bronchi is thickened, from the presence of numerous lymphoid cells. Upon the alveolar wall, in addition to the granulofibrillary material, the swollen epithelium and red blood corpuscles, are found numerous lymphoid cells, with double or multiple round nuclei. The accumulation of lymphoid cells in the bloodvessels of the affected part is extreme, and, later, the alveoli are almost completely filled with lymphoid cells, which are surrounded by a continuous alveolar epithelium. A hyperemia and sero-hæmorrhagic exudation in the alveoli takes place, then the presence of numerous lymphoid cells in the bloodvessels, interstitial tissue and in the alveolar cavities; the epithelium of the latter first swells in the transuded serum, afterwards undergoes fatty degeneration without taking an active part in the inflammatory process. This form of pneumonia differs from the fibrinous, croupous form, but is analogous to the catarrhal pneumonia of children.

In an appendix, the author refers to the publication of Buhl, whose theory of the pathology of desquamative pneumonia differs so widely. He opposes the view of the latter with regard to the endothelial nature of the alveolar epithelium, and maintains that the same is not to be considered as endothelium, but as a direct continuation of the bronchial epithelium. He also opposes the idea that the lymphoid cells are present in the alveoli through aspiration from the bronchioles, but re-asserts that they occur primarily in the alveoli. He considers that the desquamative pneumonia of Buhl is rather the edematous condition of the epithelium, in connection with which there is no active participation of the interstitial tissue.
Reports of Medical Societies.

The Boston Society of Medical Sciences. Edward Wigglesworth, Jr., M.D., Secretary.

March 25th, 1873.—The society met at the house of Dr. Wadsworth, Dr. Warren in the chair.

Dr. Dwight read a paper upon "The action of the intercostal muscles."

Dr. White showed, under the microscope, at the January meeting of the society, some hairs from a patch of tinea tonsurans upon the head of a young girl. The disease at that time had lasted some months. Since the last meeting, the girl's grandfather had applied to him for treatment on account of a thickened and diseased condition of the finger nails, which presented the appearances usually produced by a fungus, and showed, under the microscope, myceloid growths and spores of tinea tonsurans. In this case, the nails had been affected for years, and it is probable that the disease was by him communicated to the young girl. It has been attempted to cultivate these spores from the nails, as in the case of favus, but the original form has not been discovered. The elements vary somewhat from those in the hair or upon the skin.

Dr. Webber spoke of two cases in which he had recently examined the spinal cord and nerves, where amputation of the arms had been performed during life.

April 19, 1873.—The society met at the house of Dr. Homans, Dr. Richardson in the chair.

Dr. Wadsworth spoke of a recent discovery of Max Schultze, tending strongly to confirm theories previously advanced by him as to the special function of the cones in the rod and cone layer of the retina, and of the yellow pigment in the macula lutea. The cones alone take part in the perception of color. In man and in the day-monkeys, in the central part of the retina, only cones are present, and there is some yellowish pigment in the anterior layers. Night-birds and other night-animals have few or no cones in the retina. In day-birds, the cones are present. The theory is, that the yellow pigment acts by cutting off rays from the violet end of the spectrum; also some of the red, rendering the rays more achromatic which meet behind it. Schultze examined recently the fresh retina of a Brazilian night-ape and found, in accordance with the above theory, no yellow pigment and no cones in the retina.

Dr. Jeffries added that Schultze says also that the owl has very few cones, the retina being almost entirely composed of long delicate rods. Day-birds have cones but almost no rods, and the ruby red and yellow drops of pigment in the cones are strongly marked. They have one or two foveae. In 1866, Schultze spoke of apes which alone have yellow spots, as in man. The intensity of the yellow spot is a cause of color blindness; a person may be violet blind from excess of yellow pigment. Dr. Jeffries had noticed in eyes removed for sympathetic ophthalmia a difference in the amount of pigment in the macula, not in relation simply with the amount of pigment in the choroid. The yellow spot is to be expected in the negro or mulatto,
but would excite attention if more strongly marked in a white person. This amount of yellow pigment would, of course, also affect all mixed colors containing violet.

Dr. Wadsworth stated that violet blindness at the central point of vision had been long observed. It was first pointed out by Herschell, that in looking at a number of small stars together, one is observed best by looking at its neighbor. Schultze says, one sees blue better by looking a little to one side, because the yellow pigment diminishes more rapidly than the acuteness of vision does, as we go away from the central point.

Dr. Jeffries remarked that, if one looks at the spectroscopic colors, one sees a violet color farther along than where one is looking, i.e., the spectrum appears longer by not looking at but by it, the yellow of the macula causing the blindness. Dr. Jeffries then spoke of a case where yellow sight occurred within an hour after the administration of two grains of santonine. Virchow and Von Graefe report no case from so small a dose. Schultze speaks of it after five grains. Here it occurred after two grains and was observed several times.

Dr. Bowditch spoke of the origin of sugar in diabetes. Where the sugar is more abundant after meals, it is due to too great formation of sugar in the liver, the organ diseased. The glycogen in the liver may be made to disappear, at least in the lower animals, by means of a meat diet. In other cases, the amount of sugar is uniform through the twenty-four hours disregarding diet, and shows functional trouble in the muscles where albuminoid food is split up and makes glycogen, and the nitrogenous makes urea. In these cases, the patient is weak; not so in the former cases. The latter kind is also more and sooner fatal than the former. Dr. Bowditch inquired if these two kinds were recognized.

Dr. Jeffries, recurring once more to yellow vision, said that at this season the green boughs would stand out as when seen in a stereoscope, if looked at through yellow glass. The glass, of a pale sherry color is the best. This may be used also in picture galleries by day, not by gas-light.

Dr. Wadsworth had been able to get the stereoscopic effect by simply looking steadily at the landscape, the trees in the foreground standing out.

Dr. Jeffries thought this rather a question of accommodation, and stated that the glass gave much better results.

Dr. Wadsworth thought any other colored glass might give similar results; the yellow glass makes the eye achromatic and defines more sharply.

Dr. James asked if the glass must be colored throughout its entire thickness. Dr. Jeffries said this was preferable.

Dr. Quincy next showed and explained examples of the Albert-type process.

May 27th, 1873.—The society met at the house of Dr. Wadsworth, Dr. Green in the chair.

Dr. Wadsworth showed, under the microscope, sections of the fovea from a normal retina. He explained, by means of drawings upon the blackboard, the minute structure of the retina, especially at the fovea. Dr. James inquired if the fibres connecting the two granular layers were nervous or connective tissue. Dr. Wadsworth said this was not certainly known.
Dr. Jeffries spoke of the breaking off of the pigment from the rods and cones going to prove that it was retinal; also, of a tumor occupying the place of the choroid, but being really a white sarcoma.

Dr. Wadsworth stated that the basement membrane of the choroid could often be followed over or upon the surface of a tumor even when this projected considerably into the eye, and when atrophy of the epithelial layer from pressure existed.

Dr. Bowditch spoke of a new test for albumen, viz., picric acid, recommended in an article in the March number of Brown-Séquard's Archives, translated from the Gazette Méd. de Paris, 1873, p. 122. A drop of the fluid to be tested, urine for example, is allowed to fall into picric acid; it sinks through, and, if albumen is present, leaves a white streak. Dr. Bowditch has not found this so accurate a test as heat or nitric acid; e.g.:

20 cc. of urine + 2 gtt. egg albumen gave slight reaction with heat.
20 cc. of urine + 2 gtt. egg albumen gave distinct reaction with NO₃.
20 cc. of urine + 2 gtt. egg albumen gave no reaction with picric acid.
20 cc. of urine + 4 gtt. egg albumen gave slight reaction with picric acid.

Better results were obtained with picric acid, when a dark background was employed.

Petroleum a Remedy in Whooping Cough. By Dr. Weiss, Staff-Surgeon.—In July, 1872, two children, living in the same house with the author, were taken sick with the measles, a boy of seven and a girl of six years of age. In August, the mother took them together with her other child, 4⅜ years old, into the country, when this one also was taken with the same disease. The measles were of light form, and with the boy and youngest girl ran a mild course, whilst, with the girl six years old, a severe whooping cough developed itself. Towards the beginning of September, the other two children began likewise to cough; the family returned to the city and the children were separated from each other, the girl six years old being placed in a room by herself, which before this could not be done. During the ensuing eight days the author observed an increase of the cough in the boy and in the youngest girl, with the characteristic sound of tussis convulsiva. During this time, bed bugs were found in the beds of the two youngest children, and, for the purpose of their destruction, petroleum was freely used. To the great astonishment of the mother, after this the children were much quieter nights, and coughed less also in the day-time. Eight days later, the beds being taken away from the children to undergo a similar procedure, the cough returned severely; again, when the beds were returned, becoming much diminished, and finally disappearing altogether. The oldest daughter, whose bed had not been subjected to this treatment, suffered long, in spite of all treatment, and was finally cured by being sent away from home for a change of air.

The publication of this case is interesting in connection with the results of the treatment of this disease in gas-works and by turpentine inhalation.—Berliner Klin. Wochenschrift. No. 20. 1872.
Bibliographical Notices.


These seven lectures, by a new professor in a new chair, have a freshness and directness quite Watsonian, which is the highest compliment to their style the writer can bestow. The matter, for the most part, is worthy of the style. The subject is treated rather generally, of necessity, but is so presented as to give important points due prominence, and to prove an incentive to further research on the part of the student.

The author thinks insanity rather on the increase, in spite of the negative opinions of Maudsley and Robertson. Statistics, though not wholly reliable, show an increase for England and Wales, in the past ten years, from 2 to $2\frac{1}{2}$ per thousand of the population. Civilization, so called, is indirectly responsible for this increase, since the greater the rate of social progress the greater the waste and loss of power. The higher the mental standard of the race, the more marked is individual deterioration and failure. Hereditary causes rank highest. Occurring cases are about equal in the two sexes. More men get well or die, and more women become incurably insane. The country furnishes a larger proportion of cases than cities, because intermarriages, underfeeding, and want of intellectual activity prove, after all, more fruitful of insanity than the wear and tear of town life. This fact seems to diminish the force of the charge against civilization of inducing an increase of mental disease.

Insanity, he thinks, always presupposes disease affecting the vesicular neurine of the convolutions, leaving, in most cases, appreciable lesions, and in general paralysis, notably distinct and peculiar changes. The causal classification of Dr. Skae, notwithstanding its convenience to the certifier, he discards, and substitutes nothing for the old symptomatic divisions of Pinel, of mania, melancholia, dementia and idiocy. Although the former is equally imperfect with the latter, we must give it credit for an attempted approach to a scientific value. Such terms as phthisical, climacteric, traumatic or puerperal mania, melancholia or dementia, certainly convey much more of a case than either of the last three alone, though the mental disease may be essentially the same in all.

The prominent forms of mental disease are illustrated by typical cases vigorously presented occurring in the lecturer's experience, or selected from that of others. The writer agrees with Esquirol, that "moral alienation is the proper characteristic of mental derangement." He says "moral perversion is the substratum of every deviation from the normal standard of mental integrity." Still, in a case where no intellectual disorder is apparent, the morbid causes of the moral perversion should be carefully elicited. Insane impulse is not really the isolated phenomenon it seems, but depends on an underlying insane temperament or diathesis spasmodica.

The treatment of insanity is not considered at length or in detail; but the ideas advanced are practical and plainly set forth. The

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hospital is the best place for the insane in general, and early treatment is of the greatest importance. With the wealthy, the home may be turned into a hospital, sometimes, to advantage, and some well selected cases of insanity, particularly of puerperal mania, may recover at home, under favorable circumstances. There is nothing said about cottage and family systems, and no allusion to "free air" or "Gheel," for which let us be duly thankful. The insane have suffered enough from the anti-hospital and the non-restraint manias. The author, after showing the mischief caused by the attempt at an absolute disuse of mechanical restraint in English hospitals, delegates the subject to the superintending physician, where it belongs as a purely medical matter. The "cold pack" in acute mania he values partly from its involving complete restraint. The Turkish bath is recommended in melancholia. High feeding, forcible if necessary, with moderate stimulation, is of the first importance. There is nothing to fear from what Sydenham calls "too great spirituousness and richness of the blood" in cases of insanity. Chloral outranks opium, in the author's opinion.

Such is the general scope and character of a very useful series of lectures. The students of King's College, however, have had the advantage of the reader in frequent clinical demonstrations concurrent with the lectures at Colney Hatch Asylum, where Dr. Sheppard is one of the medical superintendents.

T. W. F.


Though the original work appeared four years ago, it has been little known in this country, owing chiefly to the want of a translation. Dr. Edes deserves well of the profession for the excellent manner in which he has supplied this deficiency. Ecker's description is, almost without exception, clear and easy to follow, with the assistance of the drawings, in which all confusing details have wisely been suppressed. The views of the author are more like those of Bischoff than of any other observer; both recognize five lobes—the frontal, parietal, temporal, occipital and trunk lobes, though they do not agree as to the boundaries. Ecker makes the fissure of Rolando the division between the frontal and parietal lobes, giving one of the central convolutions to each, while Bischoff gives both to the parietal. Ecker denies that the external occipital fissure disappears in the eighth month of fetal life, as Bischoff maintains, claiming that it is represented by a small sulcus into which the parietal fissure (the intraparietal of Turner) frequently opens. There is no doubt of the existence of the fissure which Ecker describes; indeed, Bischoff's plates show it perfectly, but this leads us to doubt if it be really the one which the latter observer denies.

We are not acquainted with any system of nomenclature of the convolutions which is entirely satisfactory, but it seems as if both embryology and comparative anatomy favored one founded on a plan of longitudinally arched convolutions and fissures. It is not easy to see the advantage of a temporal lobe, obtained by drawing an arbitrary
line in front of the occipital, according to Ecker, or of the parietal, according to Bischoff. The boundaries of the occipital lobe are, except on the median surface, entirely meaningless.

It is easy to criticize a work of this nature, for the field is still so new that few points are settled beyond question; but this book has the great merit of giving very clearly the outlines of a system by which the arrangement of the convolutions is made intelligible to the general medical reader.

T. D., Jr.

BOOKS AND PAMPHLETS RECEIVED.


The Sanitarian for October. The New York Medical Journal for October. (From A. Williams & Co.)

TRANSFUSION OF MILK IN CHOLERA.—In the Aberdeen Medical Student for July 4th, Dr. Edward M. Hodder, of Toronto, recounts the following experiments made by him during the last epidemic of cholera in Toronto, twelve or fourteen years ago. A stout-built farmer was admitted to the cholera hospital. He was in a state of collapse, cold, pulseless, blue, and shrivelled; the secretion of urine was arrested; there was vomiting and purging of rice water fluid—in fact, he seemed dying. A consultation was called, and it was decided that the patient was dying, and nothing could be done. Dr. Hodden resolved to try the effect of transfusing milk. "I ordered," says Dr. Hodden, "a cow to be driven up to the shed, and while she was being milked into a bowl (the temperature of which was raised to about 100° Fahr.) through gauze, I opened a vein in the arm and inserted a tube, and then filled my syringe (also previously warmed), and injected slowly therewith. No perceptible change, either for better or for worse, took place; so after waiting two or three minutes, I again filled the syringe and injected seven ounces more. The effect was magical; in a few minutes the patient expressed himself as feeling better; the vomiting and purging ceased, the pulse returned at the wrist, the surface of the body became warm—in fact, the man rallied, and speedily recovered without a bad symptom." A second case is also recorded which was treated in a similar way, with a good result.—Lancet, July 19, 1873.
The recent outbreak of typhoid fever in London, has afforded the English press a text for much interesting discussion. The origin of the epidemic is supposed to have been traced to the milk supplied by the Dairy Reform Company, on one of whose farms typhoid fever existed, and it was found that a large proportion of those who were affected by the disease received their milk from this particular farm. A number of other interesting facts all seemed to point to this conclusion, and the company was immediately notified as to the probability of this origin, in a communication signed by Sir William Jenner and Dr. Murchison. Notwithstanding this testimony from such high authority, the company hesitated for several days to stop the milk supply, and have been soundly abused by the medical journals for their scepticism. The supply of milk once cut off, the epidemic, it was thought, declined considerably. In addition to a protracted discussion, brought about by this action of the company, many ingenious theories have been advanced as to the way in which the milk became the bearer of the contagion. A loud cry was raised against the use of sewage grass, but it was soon found that the Diary Reform Company had never used it. A more plausible theory was that set forth by Dr. Michael Taylor, in a London daily paper. The warm milk, he states, absorbs with readiness effluvia from the air, and is in the highest degree susceptible to the least mustiness and putrescence in the atmosphere. It is in truth, he says, the most congenial soil or nidus in which contagion may nestle and fructify, and in which, like leaven, the germs of typhoid, scarlatina and cholera may be reproduced and multiplied. The way in which the poison enters the milk, according to his showing, is not appetizing, to say the least, to partakers of this beverage. In a previous similar outbreak, the cows were milked by the hands of a woman who was nursing cases of typhoid fever on the premises. The dry epidermic dust, the débris from the peeling of the skin, was shaken from the arms and dress of the milker into the milk-can, or was absorbed from the atmosphere charged with these floating particles.

It has been also supposed that the water with which the cans were washed came from a well tainted by a defective sewer. This was found to be the case at Wolverhampton, where an epidemic of typhoid was also raging.

Although there has been much debate as to the way in which the
milk has been contaminated, little doubt has existed amongst the profession in England that such is the fact. But now that the smoke of battle has cleared away, we understand, at last accounts, that serious doubts are arising as to whether the much abused milk is, after all, to be held responsible for the outbreak.

**Moderator Band of the Heart.**—Dr. George Rolleston, in the Harveian Oration recently delivered before the Royal College of Physicians, exhibited in the heart of a bird, the Australian cassowary, a structure which he is quite sure has never been described or figured before. This structure is a moderator band which has never been found in any other member of the class Aves, though it is largely developed, and, indeed, exactly reproduced in the hearts of certain mammals, and is represented, at least rudimentarily, in our own. The band passes directly across the cavity of the right ventricle from its fixed to its movable wall. A band of similar function has often been figured as existing in the hearts of most or all reptilia below crocodilina; and it serves to close up and expel the blood from the pulmonary compartment of their imperfectly divided ventricle.

Dr. Rolleston proceeds to inquire as to the morphological bearing of his discovery and as to what traces of it we can find in ourselves. He states that the valves of the heart in the higher vertebrata may be spoken of as being but trabeculae flaked off from the inner surface of a muscular sac, and subsequently made more or less membranous.

The musculi papillares represent the disposal or destination of the innermost layer of the right ventricle, according to Dr. Pettigrew; and the lecturer considers the moderator band to be but a specialization of the next layer from within outwards.

"If we look at the outer aspect of that very constant musculus papillaris, which passes in man from the outer and movable wall of the right ventricle to distribute its chordae tendineae to the two more anteriorly placed of the three segments of its auricular valve, we shall frequently see that its longitudinal fibres are crossed nearly or quite at right angles by a slender fibrous band, so that we have before us an appearance not wholly nor essentially unlike that presented by the striae longitudinales of Lancisi and the fibres of the corpus callosum when viewed in neutral connection. This band of fibres can sometimes be traced upwards towards the conus arteriosus, and be seen not to die away until close upon the point of origin of the most anteriorly or upwardly placed chorda tendinea arising from the septum to pass to the hindermost of the three segments of the tricuspid. The points between which this line of fibres lies may be observed to be the very same as those between which the moderator bands in the cassowary and the sheep stretch as free columns. It is not altogether rare to see this band raise itself from the position of fusion, like the ventricular wall, and assume the character of a cylindrical band for a lesser distance, but with no less distinctness as a column than in the unguilata."

"Every gradation exists between the entire obsolescence of the moderator band, which we sometimes see in the human heart, up to the important and structurally prominent development attained to by
it in the ungulate mammal, and this solitary instance for the class of birds, and the sub-class with such generalized affinities of Struthiones." (A full report of this lecture with illustrative plates may be found in the British Med. Journal, July 5, 1873.)

A coroner's inquest was recently held in Blackburn upon a person who died from the use of the stomach-pump. The following statement of the case is taken from the Lancet of Aug. 30th, p. 311.

"It appears that the deceased was accustomed to take, daily, half an ounce of tincture of rhubarb as a stimulant and tonic, for which he was in the habit of calling every evening at the shop of a druggist at Blackburn. At 7, P.M., on the evening of the 16th, he called at the shop and asked for 'his usual dose' which he drank then and there, but remarked that it did not taste as usual, and the druggist looking at the bottle from which the dose had been taken, found that he had given him laudanum by mistake. A scruple of sulphate of zinc dissolved in a tumbler of water was immediately given. A medical man who was called proceeded to use the stomach-pump. 'The tube was too large, and on the smaller one being introduced at the mouth, that was found to fail also.' Ten grains more of the sulphate of zinc were then administered, and the deceased vomited copiously. The deceased never seems (after vomiting had been induced) to have had any symptoms of narcotic poisoning. He complained very much of his throat, and the administration of nourishment became difficult. He was much emaciated, and died on the afternoon of the 19th, three days after the accident.

The post-mortem examination revealed a stricture of the oesophagus (probably malignant), which accounted for the difficulty in passing the tube. Above the stricture, the walls were very thin, and a perforating fissure was discovered which had doubtless been made by the tube of the stomach-pump.

He seems, previous to the accident, to have presented no symptoms of stricture of the oesophagus beyond some slight dyspepsia accompanied with 'water-brash.' The jury exonerated both the medical men from any blame, and very properly looked upon the untoward occurrence as a pure accident. Very properly also, they considered the druggist deserving of grave censure, for, from the evidence, it appeared that no precautions had been taken by him to readily distinguish between the bottle which contained the laudanum and that which held the tincture of rhubarb."

Passage of a large number of pins, &c., per annum. Reported by James L. Fite, M.D., Lebanon, Tenn.—The following interesting case came under my observation, and I send it for the Journal. For a greater part of the history I am indebted to the little patient's father.

Minnie Ross, three months old, on the 25th of February, 1873, had an action from her bowels, after which the points of three pins were discovered. The mother took hold of them with her fingers and pulled them out. The pins looked bright and new.

About three o'clock the same afternoon, two more pins were extracted in the same way—one point, and the other head foremost.
On the next day, about three o'clock in the afternoon, the baby passed thirteen more pins and two needles—the needles were small cambric needles with the points broken off. The pins were all of the same kind, except one large brass pin.

About half-past 3 o'clock on the same evening, she passed a small agate button. This was on Wednesday, the 26th of February, 1873.

On the following Monday, March 3d, about 8 o'clock P.M., the baby passed nine more pins, eight of which I enclose to you. These, you will discover, are somewhat corroded.

On Thursday following she passed one pin, very much corroded. So far as I know, the baby has never had a pain or made a grunt from the effects of these pins, &c. Minnie Ross was three months and nine days old on the day the first pins appeared.

My theory is, that these pins, needles and button were given to the baby by a little servant girl, on the morning of the day the first pins came.—Nashville Journal of Medicine and Surgery.

Replantation of Teeth.—During the discussion of the subject of alveolar abscess, at the late meeting of the Illinois State Dental Society, Dr. Chase, of Missouri, remarked that cases of replantation are more numerous than we should have supposed. He said:

"We know that teeth have been knocked out and lain in the dirt for two or three days, and after replacement have grown firm, and after recent luxation the circulation has become re-established.

"In case of persistent alveolar abscess, he thought every one justified in conquering it by extraction and replantation.

"It is astonishing what a tooth will bear. The idea that the periosteum is destroyed by cutting off the apex of the root is all a mistake. It is not at all necessary to keep the tooth in tepid water or blood. Time may be taken for the operation. In some cases it may be well, previous to operation, to take an impression for making a plastic retaining cap or splint upon, to be used after the replacement of the tooth. He should treat the next case of a persistent nature that came under his care in this manner.

"When there is no external opening in alveolar abscesses, forces creasote up; it causes great pain.

"Remembered a case, of two teeth treated in the same mouth, though not at the same time. One had an external opening, the other not. In the case without opening, there was more pain than in the other, but it succeeded in a shorter time than the one that had the opening.

"In a communication in a recent number of the London Dental Review, the author advocates pepsine for dissolving dead portions of pulp. This struck the speaker favorably, and accordingly he had tried it for several months. It accomplished its work within a few hours, provided the pulp has not previously been treated with creasote or tannin."

Dr. Kilbourne, of Aurora, Ill., related a case of extraction of a first bicuspid, for incipient ulceration, and replantation. After cleaning root-canals with creasote, and filling with gutta-percha, and filling carious cavity with tin, the tooth was replaced and left without ligation, and has been doing well since—about two years ago.—Amer. Jour. Dental Science.
Correspondence.

The Training School for Nurses.

Messrs. Editors,—As the time for opening the Training School for Nurses draws near, the question of its probable usefulness is becoming a subject of more lively discussion among physicians.

The following are the chief among the arguments used by those who take ground against the scheme.

1. That the claim of its supporters, that a better and more refined class of women will be attracted into the profession of nursing, will not be justified by facts.

2. That the nurses which we now have are good enough.

3. That much learning will make the new nurses—if not mad, at least upship and intractable.

The answer to the first objection must be left to the future. It may be that this claim has been urged too strongly, and that it is, in fact, to a better modelling of the old clay that we must look, rather than to the introduction of better clay. If, however, there are intelligent and refined women who are at present on the fence in the matter, we know of no better inducement that could be offered to them to take the right step than that which is offered by the new plan.

As to the second objection, if we are content to neglect the modern means of investigation and treatment in our practice, and to find ourselves, after years of experience, losing more and more our confidence in the efficacy of all medical treatment, as Rusticus, in his last letter, confesses to have been doing, then we can get along well enough with the nurses that we now have.

If, on the other hand, we desire to make a science of our art, to know if, and exactly how much, and after what time, and in what respect our digitalis affects the pulse, and our calomel the temperature, or the daily or hourly variations in pulse and temperature from any cause, or if we wish to know the character of the excretions through the day, or to test the doctrine of crises in our practice, or if we wish to give cold baths of a definite temperature in typhoid fever, or to have the ear syringed out so that the fluid will go where it is wanted, or leeches or cups applied, or subcutaneous injections given, we cannot do it without the aid of skilled nurses, and we can do it with them, as has been abundantly demonstrated.

With the surgeon, the case is not very different. As matters stand, he must, in private practice, spend as much time in doing what a skilled assistant could do as well, and often better.

One great reason that among the physicians in large practice in England and Germany there are more that become distinguished as scientific and literary men—Professor Traube and Sir Henry Holland, for example—than among the same class here, is that the work in these countries is better subdivided, the educated men taking the head-work and becoming better educated, and the skilled assistants taking the manual work.

The office of famulus is not an extinct one in Germany, and in the obstetrical department of the Vienna hospital a large class of female nurses receive regular instruction from a regularly instituted professor (Professor Spaeth).

There is no reason why the long list of surgical dressings, including the application of splints, &c., should not be done by trained nurses, and the hurried surgeon be given the opportunity of eating his dinner in comfort, and getting to the polls at election time.

There is no reason why regularly educated physicians should be electricians or masseurs.

The specialists for nervous diseases should know how electricity ought to be used in their department, and the surgeon in his, and the details could be perfectly well intrusted to skilled assistants.
It will be said that this would be unfair to the younger men, who would thereby lose a lucrative part of their practice.

The argument would be as fallacious as the time-old one that the invention of machines is injurious to the hand-laborer. Let the standard of learning be raised among physicians, young or old, and increased confidence on the part of the public, and increased and more lucrative work, will inevitably be theirs.

We hope, some day, to see these changes made; and, if the School for Nurses shows itself able, with the help of the hospital, which certainly will not suffer thereby, and of the physicians interested, to turn out nurses that are really skilled, we have no doubt that the experiment will succeed.

With regard to the third objection, it is, we think, unfounded. Systematic training makes people more obedient to rule rather than less, and increase of knowledge, so far as it influences the character at all, influences it for the better.

QUI FACIT PER ALIUM FACIT PER SE.

MEDICAL ELECTRICITY.

MESSRS. EDITORS,—With your permission I desire to say a few words by way of reply to a communication on the subject of medical electricity of your correspondent, Rusticus, who seems equally anxious to get information himself and to impart it to others. Electricity is a science of vast depth and intricacy, and, more especially, that part of it which belongs to animal structures; in proof of which I will mention that even Carpenter, accustomed to those profound researches we admire in his Physiology, confesses himself unable to follow Du Bois-Reymond to the full extent of those investigations he has made on this subject. Difficult, indeed, would be the practice of medical electricity, and confined to the hands of very few, if one had to go to the very bottom of inquiries like these, and might not venture, for example, to send a current from his battery through a nerve until he had first considered how this artificial influence would affect certain numberless electrical circles moving spontaneously within the infinitesimal molecules of the part itself, each pair of which becomes peripolar or depolar, as the nerve is in a state of action or at rest. I question, indeed, whether even those who amuse themselves with such minute speculations, bring them into actual practice, or are not rather guided by those external symptoms, and that ordinary experience, equally within the reach of my friend Rusticus and the great multitude of other practitioners.

Haud inexpertus loquor. When, some years since, my attention was first directed to electricity as a means of curing disease, the instruments themselves, I confess, presented a difficulty at the very outset; they were new to me, and, as a matter of consequence, not understood. I then had recourse to books, which began with abstract, half metaphysical discussion, extending far into the volume before any practical matter was approached. This mass of introductory matter I do not, by any means, mean to say was useless; I would only assert that it was too much labored and remote for a beginner, and that all the essential points are comparatively simple, and such as may be mastered without any unusual share of difficulty. Since this time, many good works on the subject have been written, as those of Althaus, Reynolds, Tibbits, Hamilton, Meyer, etc., and many admirable machines constructed, as those of Remak, Fromhold, Meyer, and the Galvano-Faradic Manufacturing Co. of New York; the latter are those I now use, as being at once simple and efficacious.

While making these remarks, I am not at all to be understood as if desirous of defending those itinerant and other electricians whom Rusticus so justly decries; on the contrary, such ignorant pretenders deserve no countenance, and, as in the instance of the lady with her “primary” and “secondary,” who brought on hemiplegia, should be prosecuted and punished by law. All I would advance, is, that the practice of electricity is open to every physi-
Obituary.

DIXI CROSBY, M.D., LL.D., died at his residence in Hanover, N.H., Sept. 26 ult., aged seventy-three years and seven months. For thirty years he was connected with Dartmouth College, holding the chair of surgery for more than three-fourths of this long period. Dr. C. belonged to a family of physicians; his father, several of his brothers, his sons and many of his nephews have been, or still are, members of our profession. For several months preceding his death, he suffered from some heart lesion, probably dilatation of the right side, but the immediate cause of his demise was effusion into the cavity—the brain suffering last, so that his end was as peaceful and painless as his life had been pure and exemplary. Truly an honored son of New Hampshire, and a distinguished member of the medical profession has passed away, and we cannot speak of his demise without paying a brief tribute to his memory. He was a man and physician of distinguishing and characteristic traits. A man strong in purpose, determined in action, truthful, just and kindly disposed toward all with whom he came in contact. His positivism made him at times seem severe and dogmatic, but it was only innate force manifesting itself in an honest and determined enunciation of his convictions. As a surgeon, he was cautious and skillful; as a physician, he was kind, patient and eminently successful. He has endeared himself to hundreds of young and middle-aged members of the profession who have listened to his teaching or seen him “sever but to save.” He was no blind follower of acknowledged lights, but drew his inferences and his illustrations from the storehouse of his own large experience. As he often said of himself, he was “the disciple of no man.”

A star truly has fallen from the medical firmament, but it is not lost in darkness: its reflected light will be seen and felt for generations to come. When his name shall be spoken or his history analyzed, let our young men emulate his example, and seek to attain that success which is the reward of traits like his—high aims, studious habits, moral perfection and invincible determination.

All honor to his memory, for he was worthy!

Medical Miscellany.

DR. W. P. BRECHIN has been appointed to the charge of the department of aural surgery at the Boston Dispensary.

The King of Dahomey is reported to have changed the fashion of his wearing apparel. Seated on his throne, he received a scientific commission, not long ago, his body profusely decorated with the blue, gold, and green labels which had been carefully peeled from the medicine bottles brought by Europeans into his dominions.—Canadian Medical Times.

A peculiar malformation is exhibited in the case of a girl at Swettau, in Bohemia. Both arms are wanting, but the right upper limb is represented by a small, movable outgrowth, a little more than three inches long, attached to the integument near the outer end of the right scapula. The hand possesses only the middle, ring and little fingers, connected directly (there being no carpus) with a forearm an inch and a half long. This rudimentary limb is quite useless; but the child uses her toes to feed herself with, and in sewing and other kinds of work.—Canadian Medical Times.

Unpleasant Hospital Visitors.—At Benguela, in Angola, says the Correio do Sul, the military hospital is in such a state that wolves have entered it in search of human flesh. The Correio Medico de Lisboa, commenting on this, says: "Speaking plainly, our colonies, as regards the hospitals, are, for the most part, the most perfect examples of carelessness, indifference, and contempt of humanity, that can possibly be found."—London Med. Record.

On the Brain.—Professor Ferrier delivered a lecture, in the Section of Biology, at the British Association for the Advancement of Science, "On the Localization of the Functions of the Brain," in which he stated the results of a series of experiments which he had conducted during the last year upon the brains of living animals by means of a small electrical machine. His first object had been to stimulate the brain, with a view of ascertaining whether, in opposition to the theory of Brown-Séquard, he could in this way produce activity of the brain. In carrying on these experiments, he had dealt with cats, dogs, rabbits, guinea pigs, fish, a jackal, and a monkey; and the results obtained had led to the discovery of an entirely new system of phrenology. Applying the electric stimulus to certain convolutions of the brain of inferior animals, he almost invariably produced certain motions—thus establishing the existence of a close connection between those portions of the brain and the action of particular muscles. Pursuing his investigations, he also established a similar connection between other portions of the brain and the senses of hearing, seeing, and speaking; and speculation enabled him to guess, with tolerable accuracy, at those parts of the brain which were the seat of thought, memory and sensation.—Dublin Medical Press and Circular.

Scapular Crepitus.—Under this title, Dr. Galvagni describes (Medizin. Jahresb., 1873) a peculiar crepitating sound, most evident on moving the scapula by placing the hand on it at the lower angle, and sometimes audible even at some distance. In two individuals in whom this was heard, there was extensive deformity of the thorax, the result of pleurisy, so that the scapula was at a considerable distance from the chest. One of the patients died of phthisis; and a large bursa was found between the subscapularis and serratus anterior major muscles, which were both much atrophied. The bursa had worn away part of the serratus and of the subjacent ribs. In a third case, the individual was a seamstress, in whom the crepitus was heard four or five weeks after the commencement of the cramp. Dr. Galvagni believes that, in writer's or seamstress's cramp, the scapular muscle may undergo atrophy, causing the scapula to glide on the ribs, and giving rise to the crepitation.—Centralblatt für die Med. Wissensch., July 19th.
SUBSTITUTION OF GOAT’S MILK FROM THE LIVING ANIMAL FOR THE STICKING-BOTTLE.—Dr. H. MacCormac maintains that goat’s milk may be abstracted from the living animal, and transferred at once to the infant’s stomach, by means of a tube provided with an artificial nipple. In this way, it is thought, the mortality hitherto attendant on artificial lactation may be greatly diminished.

THE CHOLERA IN PARIS.—The following are the official figures representing the progress of cholera in Paris in the week ending Sept. 15. On Sept. 9 there were 12 deaths; Sept. 10, 25; Sept. 11, 33; Sept. 12, 17; Sept. 13, 25; Sept. 14, 22. On Sept. 15, the reports are incomplete, but appear to show a decrease. The total deaths for the six days were 134. In the civil hospitals, during the six days inclusive, there were 79 admissions and 29 deaths; a considerable mortality, but still one which, at the outset of an epidemic of cholera, does not indicate a very intense form of the disease.—London Medical Record.

VERNEUIL ON MUSCULAR HERNIA.—The following instance of this rare complaint is reported from the clinique of M. Verneuil (Gazette des Hôpitaux, No. 13, 1873). A young, healthy man, aged twenty, stated that, about twenty months before, his foot slipped, and the limb was violently abducted. He felt something give way, but no ecchymosis followed, whilst a tumor suddenly appeared on the inner side of the thigh (he felt slight pain during twenty-four hours). The tumor appeared when the patient adducted the limb, and disappeared during inaction. It was not rupture of muscle, since there would have been ecchymosis, motion would have been impossible, and a gap would have existed between the divided ends. (A cure also would have followed in such a case, but a hernia is rarely curable.) It was considered that in this case the aponeurosis had been ruptured, and the muscle allowed to escape through the opening.

In a work on hernia of muscle, published by Mourlon, in 1861, fifteen cases are recorded. Nine of these occurred in the adductor muscles of the thigh; in two, the rectus femoris was affected. These herniae have given rise occasionally to curious mistakes. They have been confounded with varices, neuromata, cysts, lipomata, and even reducible hernial tumors. Warren removed one; and a cure has followed an exploratory operation by the secondary union of the border of the aponeurotic wound.—London Med. Record.

NOTES AND QUERIES.

We are happy to acknowledge the receipt of a box of very elegant pharmaceutical preparations from Joseph T. Brown & Co.

MORTALITY IN MASSACHUSETTS.—Deaths in fifteen Cities and Towns for the week ending October 11, 1873.

Boston, 123—Worcester, 26—Lynn, 20—Lowell, 23—Charlestown, 16—Salem, 10—Somerville, 9—Gloucester, 8—Chelsea, 6—Newburyport, 6—Holyoke, 5—Fitchburg, 5—Springfield, 4—Haverhill, 3—Milford, 2. Total, 266.

Prevalent Diseases.—Consumption, 49; cholera infantum, 25; typhoid fever, 20; dysentery and diarrhoea 13; pneumonia, 9; scarlet fever, 7. GEORGE DERBY, M.D., Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Oct. 18th, 1873. Males, 67; females, 72. Accidents, 6; apoplexy, 6; inflammation of the bowels, 2; bronchitis, 4; disease of the brain, 3; cancer, 3; cerebro-spinal meningitis, 1; cholera infantum, 10; consumption, 22; convulsions, 3; croup, 1; debility, 4; dropsy, 1; dropsy of the brain, 1; drowned, 2; dysentery, 1; diptheria, 3; erysipelas, 1; scarlet fever, 7; typhoid fever, 11; gastritis, 1; gangrene of the skin, 1; hermia, 1; disease of the heart, 2; hematomatosis, 1; intemperance, 1; disease of the kidneys, 2; disease of the liver, 3; congestion of the lungs, 4; inflammation of the lungs, 8; marasmus, 10; old age, 1; pleurisy, 1; premature birth, 1; suicide, 2; teething, 1; whooping cough, 1; unknown, 2.

Under 5 years of age, 57; between 5 and 20 years, 14; between 20 and 40 years, 34; between 40 and 60 years, 19; over 60 years, 15. Born in the United States, 89; Ireland, 36; other places, 14.
Mount Desert and Typhoid Fever, During the Summer of 1873.

By Wm. J. Morton, M.D.

The village of Bar Harbor, situated on one of the many slopes of Mt. Desert Island which stretch from the mountain to the sea, is built along the elevated shore, varying in height above the sea level from ten to fifty feet. The settlement, for very many years consisting of no more than half a dozen houses, has assumed a more notable growth during the last decade, owing to the many visitors attracted thither by the wonderful combination of mountain, sea and island scenery, and it now numbers a dozen hotels and a large collection of smaller houses, the whole accommodating, during the height of the season, from two to three thousand souls. The proprietorship of both hotels and cottages is almost exclusively confined to the native population, whose limited means and contracted ideas have precluded any further realization of the requirements of a civilized township than those primary ones of food and shelter. As a consequence, the primitive means of disposal of the excreta and kitchen washings of a half-dozen cottages are still applied to the crowded summer village.

During the season just passed, the influx of visitors was greater than ever before. The weather was warmer than for many years, and the rainfall was unusually small. Fogs were infrequent.

The evidences of lax sanitary measures were seen on every hand. The necessary outbuildings were, as a rule, not properly cared for; the kitchen drainage either lay upon the surface of the ground near to the houses, or, on the other hand, was led but a few feet to an imperfectly constructed receptacle.

Pig-sties, in several instances, were in evident proximity to eye and nose, and piles of animal and vegetable refuse existed in closely neighboring fields.

These facts, thus far, are not brought forward as a special reproach to Bar Harbor, for, no doubt, many New England towns are in the same condition. There were, however, nuisances of which brief mention should be made in view of their apparent association with subsequent sickness. Of these the most noticeable was an
overflowing cesspool maintained within ten feet of the broad veranda of the Bay View, the largest hotel; and to its proprietor many and frequent remonstrances and protests were directed by his guests and others interested. But such complaints were received with stolidity and indifference, and no practical change was made.

In the same field with the cesspool, and within a hundred feet of either house, the proprietor of the Harbor House, the neighboring hotel, kept a pile of putrefying material collected from his kitchen, from which emanated the most sickening odors.

We leave others to judge of the conduct of this gentleman who persistently refused, in the face of the appeals of many excellent men and women, and also of the selectmen, to remove or discontinue the use of this second nuisance, and who further declared that such smells were healthy, and, to prove that they were, he should and did spread the material to rot upon the field.

Curiously enough, in the spring and early summer, a false report had become very generally circulated in the newspapers that typhoid fever existed at Mt. Desert, and this report, then contradicted, later became a verity.

The first marked typhoidal symptoms appeared among the guests of the Bay View House, on Aug. 5th, when a young lady of their number (case 1), after several days of general malaise and lassitude, took to her bed with severe headache, chills and high fever. On the 6th, another (case 2) was ill in the same manner. On the 10th, a young gentleman (case 3), who had been confined to the house for two weeks, with acute synovitis, became ill with the same symptoms as the two preceding.

Fever was the most obvious symptom, the temperature rising gradually, with morning remissions.

On Aug. 13th, a young lady (case 4), in whom the prodromal symptoms of loss of appetite, general illness and mental disquiet had been evident to many for a period of ten days, was seized with slight chills, and a most violent headache continuing for days and followed by the complete history of abdominal typhoid. About the same time, a fifth case (case 5) occurred, but coming under homoeopathic treatment, we are unable to give its history beyond the facts that it was undoubtedly typhoid, and that it suffered a relapse, from which recovery was for a long time (up to Sept. 20th) doubtful.

Added to these cases, were two among the servants of the house, both sent home, one of whom (case 6), previously in ill-health, died within a week; the other (case 7), we have since learned from Dr. Grindle, of Somerville, made a slow recovery. In a closely adjoining cottage, another servant (case 8) also had the fever, and this was the only case which occurred outside the hotel.

So much sickness in a short space of time and in one hotel had already attracted attention, especially as the conditions of drainage remained unchanged. A consultation with Dr. Calvin Ellis, of Bos-
ton, then temporarily at Bar Harbor, was held, with a view of informing the guests of the probable association of the then prevalent illness with the particular vicinity, but the plan of informing them was, in a degree, forestalled by the question of a solicitous mother, as to whether her other children were as likely to be taken sick as the two then ill, to which there could be but an affirmative answer. The news spread instantly. A panic ensued, and though it was then evening, more than two-thirds of the guests left the house.

Letters from guests who had gone home within the previous two weeks arrived from time to time, containing information of five other cases pronounced typhoid by their respective physicians and of a moderately severe type. These we will refer to as cases 9, 10, 11, 12 and 13. Several other instances of general ill feeling, lassitude and headache, lasting a few days, were undoubtedly owing to the same causes as the preceding.

To summarize briefly. There were, in all, thirteen cases of typhoid fever associated with a residence at the Bay View House. Of these, seven were sick in the house, and five, shortly after or upon reaching home, and one in a cottage within twenty feet of the hotel, at which, it should be mentioned, she took her meals.

Five of these cases might be called normal typhoid, and the remainder abortive, the latter running their course in about two weeks, and not presenting the marked features of the five former.

The diagnosis of typhoid was based upon the characteristic prodromal symptoms, the general increase of temperature, and the existence, in a few cases, of diarrhoea, and in others of evident abdominal tenderness. Rose spots were observed in one case, but in others were not looked for, or, when looked for, not found. All the hotel cases made good recoveries.

The treatment need be only briefly referred to as consisting of an abundance of nourishment, stimulants, cold affusion and aconite, corresponding to high elevations of temperature.

The interesting inquiry into the causes of the outbreak now presents itself.

Of general telluric influences associated with low subsoil water and the decomposition of organic materials, whose subsidence had been prevented by underlying strata of clay or ledge, we cannot speak with much certainty, owing to the absence of necessary data. The soil of Bar Harbor is very generally composed of diluvium or drift, and undoubtedly rests on a continuous ledge. It would seem probable, however, that such influences would lead to a more widely distributed sickness. And, further, where disease is so perfectly localized, a local cause is suggested.

The well and the drain remain as the two obviously salient points. Of the former, we can only say that its water was hard, clear and sparkling, and uncontaminated by surface drainage. Of the presence of nitrates, we are at present unable to speak, since the returns of the analysis are not yet available.
But the position of the cesspool and drain presents a striking association, not only with the general locality of the Bay View House, but also with the part of the house in which sickness was most prevalent.

The diagram which follows makes this relation intelligible at a glance.

**PLAN OF SECOND FLOOR OF BAY VIEW HOUSE.**

S, sink, represented by dotted lines, situated in kitchen on lower floor, where dishes &c., were washed, and water found exit at pipe P into D, covered drain (but open at point P) leading to C, cesspool, also covered, but imperfectly so, with earth.

W, well.

The figures 1, 2, 3, 4, 5, 6, 9, 10, 11, 12, 13 represent the cases which occurred in these rooms respectively. Cases 7, 8, not marked on diagram, were servants, who worked constantly over sink, S, on the floor beneath.

* A case affected for several days only.

O, only room facing into western angle of the house in which a case of illness did not occur.

H, out-houses.

The arrow, at the right, points to cottage, thirty feet distant, in which occurred case 6.

The cesspool already referred to was simply an excavation in the ground about ten feet long by four wide and one foot deep. Over this cavity, boards were placed, and these were covered with the removed earth. It was fifteen feet distant from the hotel, and had been in use for six or seven years. Although the soil was gravelly, it is probable that the whole vicinity of this pool had become saturated and that it no longer had the capacity for absorbing. This in fact became evident, for as early as the second week in July, the foul waters oozed up through the soil-covering and lay
upon the surface, giving out a characteristic drain odor, which was noticeable on that side of the house up to and after the occurrence of fever, three weeks later.

But, if the surface of this pool was odious, its interior must have been vile, and from the interior the most direct communication existed, by means of the covered drain marked D, with the western angle of the house, where the pipe P emptied into its open end.

If, as is believed, the worst germs of disease are propagated under cover, we have here an abundant supply of noxious effluvia, daily and nightly emptied into this angle. In the night, when the air was still, especially in this protected spot, these drain emanations must undoubtedly flow up the sides of the house and enter the windows.

We should expect then to find the inmates of those rooms which open into this retiring angle, the ones affected, and such is found to be the fact, as will be seen by referring to the diagram, of which a few further words of explanation are necessary.

The window of the room occupied by case 4 was directly over the open end of the covered drain. The room itself, owing to its peculiar construction, formed a pocket, in which ventilation was a very remote possibility. The cases occurring in this room and the one next, marked 5, were the most serious.

Two cases, reported ill upon reaching home, had occupied, before leaving, the room designated with the figures 12 and 13. The occupant of the room marked with a star was not seriously ill, and has not been included among the numbered cases. The room marked 0 was occupied by the writer, who early fastened down the window looking into this corner, and used only the end window, which, from its situation, offered opportunities for ventilation not open to windows in the angle. To this fact alone, he attributes his exemption. Cases 7 and 8 worked over the sink, as has been said. Case 1 occurred in the room so marked, the door of which was constantly open into number 3.

It will thus be seen that, in a crowded house, a case of typhoid fever was associated with every room, except one, on the side of the house most exposed to the drain emanations, and this fact seems to prove, as far as human evidence can in the present state of knowledge upon this subject, the direct relation of the fever to filth of this description. At this point we leave the inquiry into causes.

We have, in this instance, repeated at Bar Harbor, an experience common to many growing villages where sanitary precautions have failed to keep pace with increased population. And this experience has left its mark in many directions. The Mt. Desert frequenter, to whom the associations of the island were next to sacred, felt grieved to contemplate the sullied fame of his favorite resort, and was almost tempted to apply the well known couplet,

"Where every prospect pleases,  
And only man is vile."
The material prosperity of the place suffered a very considerable
detriment in the diminished number of visitors, and this injury did
not alone affect the hotel proprietors, who failed to receive a large
proportion of their prospective summer's earnings, but also extended
to each inhabitant who was deprived of the money equivalent for
services which he was prepared to render. It is possible that
this appeal to the pocket may accomplish what an appeal to the
understanding has long failed to do, viz., inaugurate a system of
drainage and disposal of kitchen garbage.

In short, the landlord must make radical changes or be anathema-
tized, and his hotel avoided. It is idle for him to delude himself
with a hastily planted barrel, running over with slime, and point to
it as a properly constructed cesspool; or to discourse with all ear-
nestness upon his superior plan of leading filth to a wide expanse of
ground directly back of his house and there sprinkling on earth,
thus making the chances of health or illness to a hundred guests,
depend upon, in the first place, whether he attends to it at all, and
in the second, upon his daily judgment as to the necessary amount
of earth and the frequency of its application.

However, we wish to speak kindly of the landlords of Bar Har-
bor, and we are convinced that, with but one notorious exception,
they have erred either from indifference or inappreciation of the
needs of the occasion.

And while thus plainly dealing with the obvious causes of sick-
ness, and the relation of landlords and their short-comings there-
with, it must be agreed that the panic among visitors, and the
reports which subsequently gained a wide currency, were greatly
disproportionate to the actually existing amount of illness.

The fever did not "rage," to quote a frequently applied term,
beyond the eight cases already described as occurring at Bar Har-
bor and the five who returned home; while a majority of them
were of a very mild form.

Nor was the place "pestilential," with the exception of the
Harbor House nuisance, beyond the pale of the Bay View House where
all the typhoid sickness was located. Of other diseases we should
state that a dozen cases of scarlet fever, in its mildest form (with
two exceptions), or so-called scarlatina, appeared from time to time,
attacking both native inhabitants and visitors. Aside from these
two diseases, the amount of illness was less than is usual as com-
pared with the number of people.

We are glad to state that measures have already been taken,
which it is hoped will end in the introduction of an abundant
supply of the purest water from Eagle Lake. The plan also in-
volves the construction of proper drains.

And the sanitary improvements of the next season must be the
measure of each proprietor's good intention, and of the impression
made upon him by the events of the last.

No 1 Park Square, Boston, Oct. 6, 1873.
Progress in Medicine.

REPORT ON ELECTRO-THERAPEUTICS.

By J. J. Putnam, M.D., Boston.

Electro-physiology.

Ziemssen.—Die Electricität in der Medicin. 4te Aufl. ; Physical. und Physiol. Erlangen, 1872. Theil.


Both Cyon and Ziemssen deserve the thanks of the profession for having attempted, in the above works, to rescue electro-therapeutics from the hands of the purely empirical and to place it upon a scientific basis.

The laws of electrotonus, discovered long since by Du Bois-Reymond, Pflüger, and others, are stated by Cyon with remarkable clearness and conciseness.

For the sake of what follows, a brief review of the most important of them may be permitted here.

When a current of electricity is allowed to flow constantly through a (frog's) nerve, its susceptibility to excitations (mechanical, electrical or chemical) suffers certain definite changes. Around the point where the current enters the nerve (positive pole, anode), its irritability becomes diminished, so that to produce a given response (a muscular contraction of a certain strength), a more intense excitation must be used than was previously necessary. Around the point where the current leaves the nerve (negative pole, or kathode), the irritability of the latter becomes, on the contrary, greater than before, so that an irritation previously inefficient now meets with a response.

These states of altered irritability are called, respectively, anelectrotonus and katelectronus. Several theories for their production have been proposed (by Du Bois-Reymond, Hermann and others), but it will be sufficient for our purpose to assume, speaking roughly, that, where the current enters the nerve, the vibration of its molecules becomes less rapid than before (anelectrotonus, or diminished irritability); where the current leaves the nerve, that the rapidity of the molecular vibration is increased (katelectronus, or increased irritability).

At the moment that the electrical circuit is closed, the state of increased molecular vibration is induced with great suddenness around the kathode, and thereby the nerve is sufficiently excited to call out a contraction in the muscle which it supplies.

This excitation, accompanying the closing of the circuit of a constant current, takes place, therefore, exclusively at the negative pole (kathode), and not at all at the positive pole (anode).
When the circuit is broken, the reverse is true; the diminished molecular vibration around the positive pole (anode) during the passage of the current gives place suddenly to a state of normal, or even increased vibration, and an excitation, confined to the positive pole, is the result.

Many investigators have attempted to reproduce these phenomena upon the human subject, and it has, indeed, been demonstrated satisfactorily that with the optic (and perhaps with the auditory) nerve the anelectrotonic and katelectrotonic states may be produced at will. Pfüger's laws are more difficult of verification; but by taking great precautions, Cyon has obtained very satisfactory results in experimenting upon the ulnar nerve.

It is a matter of common observation in experimenting with the human nerve, that a contraction attends the closing of the circuit (if the current have a certain strength) when only the positive pole is on the nerve, the negative pole, on the contrary, at an indifferent point.

This is, no doubt, because the human nerve is surrounded by good conductors, which give an easy passage to the electrical current, and induce it to leave the nerve almost immediately after entering it.

The muscles constitute for the nerve, in fact, a negative pole (cathode), and the conditions for the induction of katelectrotonus at the moment of circuit-closure are thereby given, although of the metallic poles only the positive be in the neighborhood of the nerve.

It is claimed, on many sides (especially by Brenner and his followers with regard to the auditory nerve), that a state of more or less permanent anelectrotonus may be induced in a nerve by bringing it under the influence of the positive pole for a time, and then gradually reducing the strength of the current to zero, so as to avoid the circuit opening reaction. In this way, it is said that irritative conditions in nerves, and, indeed, in other tissues, may be removed.

The facts may be true, but physiology does not justify this explanation; for, with the frog's nerve at least, the anelectrotonic state disappears immediately, or almost immediately, after the opening of the circuit. A more probable explanation would seem to be that better conditions of nutrition are induced in the irritated nerve by the passage of the current. Furthermore, much doubt has been thrown on the propriety of Brenner's diagnosis of irritation, and, indeed, on the whole theory of the reaction to electricity of the auditory nerve, by Wreden, of St. Petersburg, who has made a long series of experiments to show that the subjective sounds which attend the so-called galvanization of the auditory nerve, are, in fact, due to the contraction of the intrinsic ear-muscles.

That many cases of ringing in the ears and partial deafness are, in fact, dependent upon abnormal conditions of these muscles, and are often curable by galvanizing them (by passing a metallic probe into the tympanic cavity through the Eustachian tube), has been conclusively shown by (among others) Weber, of Berlin. Loewenberg suggests that, by the use of a manometer connected with a water-tight ear-speculum, the supposed action of these muscles might be studied.

Both Cyon and Ziemssen criticize severely the loose and unscientific manner in which marvellous results are set down on all sides as due to the so-called galvanization of the cervical sympathetic. The cervical sympathetic (apart from its connection with the pupil and the salivary
glands) contains the vaso-motor nerves for the ear, face, and some parts of the brain, but not for the rest of the body, and the nutrition of the legs, for instance, can in no wise be dependent upon its influence.

Moreover, as the sympathetic is usually galvanized, not it alone, but also the depressor nerve and the vagus, must be brought under the influence of the current, and, perhaps, through their agency, the circulation of the distant parts of the body may, indeed, be affected.

Cyon points out that the spinal centre for the vaso-motor nerves of the arms lies in the upper dorsal, that for those of the legs in the lower dorsal, region.

Ziemssen has measured carefully the rise in temperature which normal muscles exhibit when made to contract by faradic currents, and found it to amount to several degrees in as many minutes (4°–5° F.). The therapeutical importance of such a rise must, of course, be great. No elevation of temperature, on the other hand, attended the passage of a pretty strong galvanic (constant) current through the skin and muscles for five minutes, except at the point of application of the electrodes. At the same time, there can be little doubt that the nutrition of the various tissues of the body, especially when they are for the moment in a pathological, but tending to return to the normal, state, may be improved by the simple passage of a constant (galvanic) current. Physiological evidence therefor is given by the increased weight which Orimus and Legros found a number of puppies, selected at random from a large litter, to attain under daily galvanization.

**Electro-therapeutics.**

**Neftel.**—Galvano-therapeutics. New York, 1871; also, New York Medical Record, December, 1872.

**J. Clarence Blake.**—Annual Report of the Massachusetts Charitable Eye and Ear Infirmary.


**Herbert Tibbits.**—A Handbook of Medical Electricity. London, 1873.


**Centralblatt, No. 45, 1872.**


**N. Mayer.**—Philadelphia Medical Times, May 15, 1873.


**George M. Beard.**—Cases illustrating the Treatment of Skin Diseases by Central Galvanism. N. Y. Medical Record, Aug. 15, 1873.

Neftel and Blake report cases where electricity was of service in the diagnosis and treatment of various aural diseases Neftel found "hyperæsthesia" of the auditory nerve in some cases of chlorosis, and a torpid condition in case of Bright's disease. (Compare above.)

Reynolds and Tibbits, both connected with the Queen's Square Hospital, London, recommend the use of static (frictional) electricity for its tonic effect upon the nervous centres, the treatment consisting in charging the patient, placed on an insulated stool, with free electricity. Tumors of various kinds are reported as having been relieved, at least temporarily, in this way.
The free electricity obtained from one pole of a large galvanic battery (the other being connected, by way of the gas tubing, with the earth) was found by them to have a similar tonic effect in cases of general nervous debility.

Dr. William R. Fisher (New York Medical Journal, May, 1873) speaks of the importance of placing weak or palsied muscles in a relaxed condition while faradizing them. Under these circumstances, they become able to contract, although previously unable. The reporter believes the point to be an important one.

Holst has been more fortunate than most physicians in his treatment of hemicrania by electricity. He distinguishes sharply between two opposite forms of the disease, one due to an irritated condition of the cervical sympathetic, and consequent spasm of the vessels controlled by it (observed and studied upon himself, by Du Bois-Reymond), the other to paralysis of nerve and vessels (first described by Woellen-dorff).

The excessive irritability of the nerve he treats by bringing it (vide above) under the influence of the anode of a galvanic battery, a long and narrow electrode being pressed inwards and backwards from just in front of the sterno-mastoid muscle, while the other pole is grasped by the patient’s hand.

The neuro-paralytic form he treats, on the contrary, by exciting the nerve strongly through the agency of the negative pole (kathode).

Not being able to tell, in most cases, which form of the disease is present, he lets the results of treatment decide the diagnosis.

Dr. Anstie believes, as is well known, that migraine is dependent upon degenerative changes affecting the root of the trigeminus. In this, as in all true neuralgias, he finds that the vaso-motor nerves are generally affected, but secondarily causing, in most cases, first vascular spasm, then vascular paralysis.

The use of weak, long-continued galvanic currents is increasing in favor. Bouchut found good results in infantile paralysis from letting the current from four elements run from six to twelve hours at a time through the paralyzed muscles, and considers the resulting improvement an argument for the myopathic origin of the disease. Ciniselli and Mayer recommend the wearing for a long time of batteries, such as have been long in use in the treatment of ulcers, either on opposite sides of the head or on other parts, for neuralgia, paralysis and a long list of nervous disorders.

These batteries differ from Dr. Garratt’s disks principally in the further separation from each other of the metallic plates, whereby the tendency of the current to penetrate deeper into the tissues is increased.

T. Clifford Allbutt (West Riding Hosp. Rec. for 1872; Practitioner, Dec., 1872) gives a number of cases of dementia and melancholia treated successfully by the use of galvanism directed to the head and the cervical sympathetic. Arndt (Zeitschr. f. Psych., Bd. 28) has met with similar results.

Arndt’s observations, however, have by no means been confirmed in all the large hospitals in Europe, and the cases and observers are too few as yet to justify a decided opinion in the matter.

Gerhardt has succeeded, in several cases of icterus catarrhalis, in causing the gall-bladder to contract strongly by energetic and well-
directed faradization, whereby the plug of mucus was expelled from the gall-duct. In most of these cases, careful percussion had revealed an area of dulness, which disappeared after treatment.

In the treatment of skin diseases of the most chronic and obstinate character, Dr. Beard has met with marvellous success, both when using local and central galvanism (galvanism of nervous centres). We shall look with interest to see if his observations are confirmed by others.

It has long been known that the health of the skin may be influenced by the state of the central nervous system, and that eczematous, herpetic and other inflammations may be caused by lesions of peripheral nerves, but that so close and so general a connection exists between the state of the central nervous system and that of the skin as the results claimed to follow the galvanization of the latter would indicate is entirely new and strange.

**Electro-surgery.**

**J. Byrne.**—Notes on Uterine Surgery. New York Medical Record, December, 1872, and January, 1873.


**Trueheart.**—Granular Conjunctivitis. New York Medical Record, No. 168, 1872.


Dr. Byrne appears as an advocate for the use of the electro-cautery in uterine surgery, in a series of very sensible papers, in which he also describes some new and apparently excellent forms of instruments and batteries. (All fluid batteries for this purpose will, probably, be superseded some day by magneto-electric machines, such as Mr. M. G. Farmer makes for exploding torpedoes.)

Michel has used the galvano-cautery to advantage in pharyngitis, touching lightly the thickened prominences of the mucous membrane with the red hot wire, which may be easily introduced, even through the nostril. The operation is not attended with any great pain, and in ten or twelve days every trace of it has disappeared.

In granular conjunctivitis good results are claimed to follow the use of the constant current, one (either) pole armed with a soft sponge being applied directly to the conjunctiva, while the other is placed on the eyebrow or molar process. (Vide Journal, Vol. x. 1872, page 305.)

The duration of each application is ten to thirty minutes.

Three to five applications are generally enough; if not, then one should begin again after an intermission of three to eight days. Meanwhile, solution of nitrate of silver, gr. ij.—3i., may be used.

Neftel claims to have destroyed a number of cancerous growths, with better results than usual in the way of recurrence, by means of
electrolysis. He believes that the cancer cells, being of low vitality, are killed by the current, even when they are not in a position to be directly decomposed.

Papers by him on the subject have appeared in several journals, and would repay careful perusal.

Girard gives a carefully reported case in which three amputation-neuromata, which had recurred twice after removal by the knife, were destroyed by electro-puncture, needles connected with a battery of thirty-six small Bunsen elements having been thrust into them. Eight weeks after the operation (the longest time that they had remained away before), there was no sign of recurrence.

The Causes of Death after Severe Superficial Burns.—This question is discussed at considerable length by Dr. Mendel, of Paukow, in the Vierteljahressch. für ger. u. off. Med. (xiii. 1). It is a familiar fact that a superficial burn, involving more than one half of the surface of the body, is pretty sure to be fatal, while death may be expected in a majority of cases where only one third the body is burnt. Death may ensue at three different stages of the wound:—the periods of irritation, inflammation and suppuration, and at each different stage the mode of death is different.

I. Causes of Death in the Period of Irritation.

A. Paralysis of the Central Nervous System.—This is probably the result of the shock experienced by the nervous system at the time of the reception of the burn. It is of brief duration, and often passes unnoticed.

B. Congestion of the Internal Organs.—Immediately after the accident, a reaction, more or less violent, takes place, characterized by congestion of the encephalon and its membranes, of the lungs and pleura, and also of the alimentary canal and peritoneum, accompanied often by sanguineous exudations upon the lungs and heart.

II. Causes of Death in the Stage of Inflammation.—These are the internal inflammations, induced by the cutaneous inflammation, and having their seat, commonly, in that organ situated the nearest to the burn. Meningitis and encephalitis are relatively rare; pneumonia is much more frequent, as are also pleurisy and pericarditis. Gastro-intestinal inflammation is an unusual accompaniment, and, when it occurs, its seat is usually in the duodenum. Another lesion, noticed almost invariably in the duodenum, is ulceration, analogous to the round ulcer found in the stomach. This may advance to perforation, and thus induce peritonitis; or the destruction of a vessel may take place, and death may then result from hemorrhage. To account for the peculiar localization of this lesion, we are forced to resort to various hypotheses; some pathologists connecting it with the situation of Brunner's glands; others ascribing the ulceration to embolism; and others still to some chemical change in the constituents of the bile. In some instances, tetanus has been observed in this stage of a burn.

III. Causes of Death in the Stage of Suppuration.—These are exhaustion, pyæmia, septiæmia, renal disturbance accompanied by anasarca, and intestinal hemorrhages.

Death has been known to take place suddenly, without any appreciable cause, even after complete cicatrization of the wound had taken place.
Parts First and Second. Philadelphia: Kay & Brother. 1873.

A work of this character is an exceedingly difficult one to review, consisting, as it does so largely, of cases quoted from various sources, the author being responsible only for their correct abridgement and proper arrangement. In the work before us, material is abundant, and, what adds vastly to its value, easy to get at, both from the excellence of the arrangement and the completeness of the indices. The practitioner could hardly place in his library a book to which he could turn with more confidence that he would find therein a satisfactory statement of opinions and facts upon any point within the extensive range of medical jurisprudence.

The second volume is divided into "books," several of the more important and more strictly medical of which have special editors. The chapters relative to the foetus and new-born child and to the difference of sex are by Samuel Ashhurst, M.D.; on poisons, by Robert Amory, M.D.; on wounds and signs of death, by Wharton Sinkler, M.D., and the remainder by Francis Wharton, LL.D.

Upon comparing the present edition with that of 1860, it appears that a considerable proportion of the revision has been expended in the direction of abridgement, some cases being reported much less fully than at that time. This, however, has been more than compensated, and the book now appears in volumes of a decidedly medical appearance instead of the one portly and yellow legal work of 1860. It would be easy, of course, by a little search, to point out instances in which more or different cases might have been cited, but it would be mere hypercriticism in most places to do so, since we find no point left without as much authoritative support as its importance demands. We notice, however, a few places in which recent decisions do not agree with the doctrines advanced in the work under consideration.

The opinion of Casper and others, which seems to be approved by our authors, that marks of tattooing may disappear, does not agree with the testimony of the medical witnesses in the Tichborne trial, as reported in the papers.

The section on poisons, which is one of the more strictly medical ones, is really complete, and occasionally even tends to superfluity, since it includes, for instance, lactuca and dulcamara, from neither of which has a fatal case of poisoning been reported in man. There are many more or less poisonous, indigenous or cultivated plants which are not specified in the section, but they have probably never been the occasion of legal investigation.

The present editor of this subject has added chapters upon chloral and nitrous oxide, subjects upon which his own investigations enable him to speak with authority, and which, we cannot doubt, will, sooner or later, possess a legal as well as scientific interest, if they have not already done so.

Since the statement was made (1872) that "there has been, as yet, no reliable record of death immediately caused by the use of this (nitrous oxide) anaesthetic gas," a case has been reported, in Eng-
land, of a lady who died while taking the gas for the extraction of a tooth, and in the presence of her family physician. (Lancet, Feb. 1873.)

We observe that both in the last and present edition, the stories of arsenic eating in Styria are treated as if a little apocryphal, although in the present edition a case is cited where the arsenic was actually swallowed in the presence of Prof. La Rue. The observation of Dr. Maclagan should have found a place here. He not only saw how well known arsenic eaters take their dose of several grains, but had some of their urine collected from which the drug was subsequently recovered by a chemist. (Edinburgh Med. Jour., Sept. 1867.)

The writer cannot agree with the statements as to the symptoms of chloroform taken by the stomach. He has seen a case terminate fatally in about half-an-hour after the ingestion of two ounces, the first ounce being mixed with wine. The patient when first seen was in a condition of deep narcotism. Under the head of conium, it seems as if the well known case observed by Bennett were too thoroughly observed not to deserve a place.

The number of subjects treated in this volume is by far too great to permit more than an allusion even to the most important. In the section upon the distinction of human from animal blood by the microscope, we observe that the opinion of the author (this passage is the same in the present edition and that of 1860) is that "the blood of an ox or sheep cannot, by the microscope, be, for medico-legal application, distinguished from that of a human being, for, although the globules are somewhat smaller than those of human blood, yet the size of the globule of human blood varies according to whether it is fresh or dried, and the difference between its size in man and animals is too slight to be made a point of evidence where such momentous consequences may depend upon a decision." The editor gives, however, full weight to the other side, and numerous citations of authorities.

The chapters on pregnancy and abortion, survivorship, identity, wounds, signs of death and malpractice are all exceedingly interesting and well fortified with citations.

The meagreness of our criticism may be taken as some slight evidence of the thoroughness of the work. In a literary point of view we notice only a few trivial points for remark. In section 644, it seems doubtful whether Dr. Taylor or Dr. Hassall had ground many cwts. of cocculus indicus "to go into the poor man's drink." It is a relief to find, on referring to the original, that neither of these respected gentlemen were guilty of such exceedingly unprofessional conduct.

We notice, in the last passage in the book, a prevalence of the "will" which in warmer latitudes so frequently replaces the northern "shall." This passage, however, we quote in part, wishing it might be read and pondered by our legislators in preparation for the time when they will again be called upon for a law which shall relieve expert testimony from its present exceeding bad repute. The author advocates the appointment of government experts, and says: "The official physician who acts as referee must be placed under judicial restraints. He should owe his appointment to neither party, but to the State, irrespective of any particular case. His duty it should be to take testimony, if needed on the case, and to hear counsel, so that
he will be in no danger of hazarding one of those rash and ignorant opinions which have so much disgraced this branch of medical practice. After thus judicially hearing the case, it should be his further duty to judiciously certify his opinion to the court by whom the reference is made.” * * * “We should (then) soon know whether there is such a thing as moral insanity, and whether it is practicable to distinguish human blood, after the expiration of a week from the period of its drying. Settle a few such points as these, and we relieve criminal justice of a large part of the uncertainties by which it is now beset, and we will have a series of rules by which such cases can be intelligently, consistently, and humanely conducted. Nor will this be all; we will be able to get the judicial utterances of science as to vexed issues of fact, instead of the interested arguments of experts who are virtually employed as counsel by the party calling them, or the wild utterances of philosophic monomaniacs, who are called simply because of their absorption in some unique theory of their special concoction. Such men need not be silenced. Experts as counsel, indeed, will find a proper and important office in presenting the two sides of the issue to the expert who acts as referee. But the expert who fills this last post will be disembarassed of all personal relations. He will have no client to serve, and no past partisan extravagances to vindicate. He will render his opinion as the advocate neither of another nor of himself; when he speaks he will do so judicially, as the representative of the sense of the special branch of science which the case invokes, governed by the opinion of the great body of scientists in this relation, and advised of the most recent investigations. When this is done, we will have expert evidence rescued from the disrepute into which it has now fallen, and invested with its true rights as the expression of the particular branch of science for which it speaks.”

Contributions to Practical Surgery. By George W. Norris, M.D., late Surgeon of the Pennsylvania Hospital, Vice-President of the College of Physicians of Philadelphia, member of the Société Médicale d’Observation of Paris, &c. Philadelphia: Lindsay and Blakiston. 1873.

The first contribution is on non-union of bones after fractures—its causes and treatment. Dr. Norris first describes the normal mode of osseous union, and then the appearances in cases where perfect osseous union has failed. He divides the latter cases into four classes: first, when the union is by fibro-cartilage; second, cases of entire want of union with extreme mobility of the fragments; third, union by ligamentous bands as in the patella and olecranon; and fourth, when both ends of the bone are contained in a dense capsule, having a sort of synovial lining membrane, a false joint. The causes of non-union are then considered. Among the constitutional causes are enumerated syphilis, cancer, scurvy and advanced age. Among the local causes, frequent motion of the affected limb from whatever cause, from apposition of the fractured ends, interposition of foreign substance between the fragments, tight bandaging, too early use of the limb. Union, however, fails sometimes where the most perfect rest and apposition of the fracture have been maintained. The remarkable
case of absorption of the humerus going on for twelve years, the dissection of which was described by Dr. Porter in this Journal last year, is mentioned. The methods for the cure of ununited fractures are considered very fully; labor and patience in consulting authors and collecting cases have not been spared by Dr. Norris. The forty pages containing the detailed descriptions of these methods and the experiences of surgeons are extremely valuable. A table of 150 cases of operation for ununited fracture, with the chief points of each individual case, fitly closes this essay. Next comes a chapter on deformities after fracture and the plans of removing them. The statistics of fractures and dislocations treated in the Pennsylvania Hospital during the twenty years from 1830 to 1850 are then given. The method of treating each kind of fracture is detailed. A modified Desault apparatus was generally employed, but lately the weight and pulley with extension straps of adhesive plaster have been used. The number of fractures in these twenty years was 2,208. The most numerous were those of the leg (611), next, those of the arm (579), next, of the thigh (266). The ununited fractures were 18; of these 11 were cured, 5 relieved or removed by friends, and 2 died. Of the dislocations, there were 177, 101 of the shoulder and 21 of the hip. Compound fractures are treated of in a clear and practical manner. A statistical account of amputations performed at the hospital in the ten years, from 1850 to 1860, are then given in a table. Of these there were 228, with a mortality of 55. Statistics of the mortality following the ligature of arteries are then given, and the volume closes with an account of the treatment of a case of varicose aneurism at the bend of the elbow. These "contributions" by Dr. Norris are exceedingly interesting and valuable. The patience and labor expended, to say nothing of the time consumed in collecting and arranging the statistics, must have been very great, and the detailed accounts of the various methods of treatment of recent and compound fractures will be found extremely useful to the practical surgeon. It is to be hoped that a like work will be performed for all our large hospitals, so that the immense mass of experience in different modes of treatment may be made known and utilized for the general good.

J. H.

BOOKS AND PAMPHLETS RECEIVED.


The Medical Profession in all Countries. Photographic Portraits from Life. No. 9, September, 1873.
The rapid increase in the population of Boston, caused by the development of its commercial resources, as well as by the systematic process of annexing the adjacent towns, must soon render the existing hospital accommodations of the Metropolis quite inadequate. The waiting-rooms and wards of the different hospitals and dispensaries are, in fact, already overcrowded, and further provision for patients is absolutely necessary. The medical profession, as well as the public, are, therefore, to be congratulated upon the establishment of a new dispensary, under the charge of Dr. James R. Chadwick, to be devoted exclusively to the treatment of diseases peculiar to women.

It is hardly necessary to allude to the important advantages that must accrue to medical students from the opportunity that will here be afforded them of making themselves familiar with this important class of diseases. Young practitioners, likewise, who may not have had the privilege of pursuing their studies where cliniques for the observation of these diseases are already established, will here have the chance to remove a serious educational defect.

A correspondent of the Pall-Mall Gazette states that Sir William Grey, late Governor of Bengal, devised a system of "training up a body of local practitioners able to apply simple remedies to ordinary diseases, such as cholera, smallpox and epidemic fevers." Meeting often with great epidemics which decimated the adult population in the most populous and richest districts of Bengal, he caused vernacular medical classes to be formed, which the past three years have proved to be a success. In the Medical College of Calcutta, there are now 1400 students, and their numbers increase every year. Of these, 500 receive a high education through the medium of the English language from accomplished European professors. Some 800 obtain a less complete medical education in the Bengali language, from competent native teachers. Other pupils from Northern India receive the same education in the Hindustani tongue. The success of the Calcutta Medical College has led to a demand for vernacular medical schools at other places throughout Bengal.

The various medical journals of Great Britain show a commendable interest regarding the sanitary condition of the troops who are to engage in the Ashantee war, and it seems that the government intends
to neglect no precaution which is likely to lessen the mortality which disease will inevitably bring to those who compose the expedition. Says the _Lancet_, "It is probably for the first time in our military history that a thoroughly workmanlike, comfortable attire has been provided for the soldier—one that will protect his person without encumbering him by its weight or embarrassing him by its tightness about the neck and chest." Large quantities of jams, jellies and medical comforts, as well as medicines, have been sent out. The supply of ice is ensured by the consignment of a ton of freezing salt delivered by a patent ice company of London. Large and small filters have been provided in abundance to counteract as far as may be the foul condition of the water on the Gold Coast. It is to be hoped that the war will be vigorous, short and successful.

It seems a pity that the commander of the expedition, Sir Garnet Wolseley, and his staff should have been unfortunate in their start. These officers embarked from England in a steamer of which the cabins had been recently painted, so that they were subjected to a process of poisoning with lead and the products of the bilge. Their food, also, suffered from the damaging effects of a leakage through the deck.

_The Richmond and Louisville Medical Journal_ speaks boldly and justly on the cure for quackery. "There is but one remedy; it is a radical one, powerful, entirely efficient, if it be used. This is the medical press. Unfortunately, most of these presses are afraid to deal with this stupendous evil, and are as cowardly as most medical societies. Those presses that use every means to suppress charlatanism are abused and maligned, and have the most despicable motives attributed to them. . . . . . It remains to be seen who are the strongest, the medical quacks and the scamps sustaining them, or the medical press."

**Dislocation of the Spleen.** By A. R. Kilpatrick, M.D., Navasota, Texas.—The displacement, or dislocation of the spleen occurs so rarely, and is so seldom mentioned by authors, that probably some of the readers of the _Record_ may have their doubts of there being such a pathological fact.

Dr. Robley Dunglison, in his "Practice of Medicine," mentions one case he saw _post-mortem_, and reports it as a rarity. He found the spleen broken loose from its attachments, resting with its convex surface on the brim of the pelvis—the lower extremity being turned up in the right lumbar region, suspended by its vascular and peritoneal attachments, and easily movable in every direction.

In April, 1867, I attended a young widow here who was sick with intermittent fever, complicated with deranged uterine function. She was the mother of two children, and was about twenty-five years old.
She had lived in Eastern Texas, and suffered for years with different diseases, mostly, though, malarial fevers. She was poor, and had to cook and do all household work. In course of treating her case, I examined the abdominal contents, and as she was lean, the abdominal walls thin, all the viscera could be felt. I expected, on the first examination, to find a large spleen, but being disappointed, I asked her if she had ever had "fever cake," and she said she had, years ago, and the doctors had treated her for it; but of late she had no trouble with it.

Pressing in the region of the uterus and bladder, I found the spleen there lying very much in the position given above by Prof. D. I am sure I was not mistaken; I found no sign of the organ in its proper place. The spleen could be easily traced out by the fingers, and was not much above the ordinary healthy size and length in the adult. Moving it or pressing on it produced no undue pain. She could give me no satisfactory account as to its dislocation. The woman moved away and died, I heard, of yellow fever, in the summer or fall, as there was an epidemic that year.

In June, 1868, while attending a black woman, who had several children, some of them grown, I found her spleen dislocated and lying exactly in the position of the foregoing case. She was also lean and thin, and the digital examination could easily trace out its size and situation. She also suffered no pain from handling, moving or pressing on the organ; it was evidently not diseased then, but she had no knowledge of when the dislocation occurred. She had been a slave, belonging to a sugar planter in Louisiana.

In 1866, a young lady of this place, who had a large spleen, was attempting to get up in a light wagon, when she was suddenly seized with a very sharp, lancinating pain in the spleen. She had to be helped back into the house, and required medical assistance. Dr. Barnett was called in, and found the spleen entirely below the ribs, leaving a space of more than two inches between the upper edge of the spleen and the ribs. It was very large, and occupied the pelvis, and felt like the gravid uterus. Her clothes were loosened, and her body placed on an inclined bed, elevating the posts so as to make the head much the lowest; then, by pressure and continued manipulation, similar to the taxis in reducing hernia, it was restored to its position and secured by bandages. She was kept in bed and the bandages attended to a few days, when she recovered entirely, and has not been troubled with the spleen since.

I have heard of another case in a married woman in Falls county, who is the mother of three children. She has suffered with enlarged and painful spleen several years. It finally has become dislocated, and now occupies the pelvis and feels like the gravid uterus. Since the dislocation she has aborted several times—in fact, has not brought a child to term since. The spleen must weigh nine pounds, and by its pressure on the uterus and on the large bloodvessels has entirely impaired her health. The displacement came on gradually, and probably was facilitated by parturition.

These cases are reported partly as curiosities of medical experience, and partly to direct the attention of the profession so as to elicit further observation.—Southern Med. Record.
Correspondence.

"COTTING'S OPERATION FOR INFLESHEO NAIL."

MESSRS. EDITORS.—Although many are ready to show that themselves and others have performed this same operation years and years ago, yet we think Dr. Cotting is entitled to have his name connected with it as the one who brought it before the profession fully explained and illustrated for the first time.

In May last, we operated on a "letter carrier," who, in his regular rounds, walks from twelve to fifteen miles daily, back and forth across cobble-stone paved streets, up and down stairs, &c., a case where the success of the operation was unusually well tested. He had been unable to use his foot for four weeks before we saw him, had been poulticing and trying to get the nail out of the flesh, &c.

After operating, we dressed with lint and warm water. His sufferings immediately ceased, and, the third week after, he made one trip daily, and the fourth week found him doing full duty, which he has done since. The toe is sound and tough, although the preceding inflammation caused the foot to remain swollen for nearly three months after the operation.

One word as to the operation itself. We think it has been too complicated and severe, as directed by some surgeons. It is no more severe or lengthy than extracting a tooth, in our hands; being done by one sweeping cut with the common curved narrow bistoury in the pocket case. We see no necessity for transfixion and double flap cutting, directed by one surgeon, &c. We enter the heel of the blade a little back of the root of nail, cutting forward and inward until we strike the edge of the nail, then carry the knife perpendicularly along edge of nail to end, exposing edge of nail for three fourths its length. In case the first cut was not sufficient, we should not hesitate to take off another slice, but that is never necessary, as there is little danger of taking off too much, and nothing to hinder taking off a free slice.

We hope all jealousy, if there should be any, may cease, and that every edition and new work on surgery will mention this method as the operation for "ingrowing toe-nail," as it deserves to be.

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THE CAUSE AND PREVENTION OF YELLOW FEVER.

MESSRS. EDITORS.—Probably no subject within the whole range of medical science has furnished a more fruitful theme for the pen of the medical writer than the dire form of pestilence known as yellow fever. To become familiar with the literature of this malady would require the work of years. It is, indeed, no light task to read even the titles of the numerous essays and the title-pages of the various books which have been published in several languages on this subject, for these treatises are numbered by thousands.

The first glance at this long catalogue of books, and the imposing array of illustrious authors, impresses one that the subject must already be exhausted, and that the attempt to add anything new or valuable would be presumptuous.

And yet, on a closer examination, as we turn from page to page, and from volume to volume, of this vast library, in search of information on certain points, we do not find that unanimity of opinion among these authors which evinces positive knowledge. There is, it is true, very little controversy among them concerning the signs by which this fever manifests itself, or in regard to the local lesions that are to be observed in post-mortem examinations of fatal cases; and in regard to the treatment to be pursued, practitioners are no more at variance on this than on many other diseases.
But if prevention is better than cure in other cases, it is emphatically so in this; and the question of the cause and prevention of this disease is paramount to all others concerning its symptoms, pathology and treatment.

Let us, then, inquire, What is the specific cause of yellow fever? This is an open question; very open, one may say, for unfortunately the "doctors disagree" on this most vital point. Their answers to the question are contradictory, and, consequently, of little practical value.

One author contends that the fever is caused by volcanic eruptions; another, that it owes its origin to a lack of electricity in the atmosphere; while a third asserts that it is caused by the plant-growth principle being in excess of the actual demand of the growing vegetation; some attribute it to heat, others to moisture, and some to the two combined; many suppose it to arise from the exposure of fresh earth, as in the excavations for cellars, wells, &c., in certain seasons of the year; the decomposition of animal matter, also marsh miasm, are assigned by several writers as the cause of the disease. Dr. E. D. Fenner, of New Orleans, who has probably had a more extensive observation of the rise and progress of this fever, and more experience in its treatment, than any living American, says, in italics, in his Southern Medical Reports, that he believes that "yellow fever is only one of the forms or types of endemic, malarious fever witnessed almost annually in this city."—Vol. i. p. 33. Dr. La Roche, the most voluminous of American writers on yellow fever, after reviewing these supposed causes of the disease, states his reasons for rejecting all of them, and advocates the theory that decaying wood, under certain circumstances, has the power to develop the fever. The late Dr. Barton, from extensive observations made during the severest epidemics in New Orleans and vicinity, is very positive that this fever is occasioned by disturbances of the soil, and by filth of various kinds acted upon by heat and moisture; among the kinds of filth enumerated by Dr. Barton as abounding in various parts of the city, and probably causing the outbreak of the fever, are coal tar, molasses leaking from barrels on the wharves, stagnant water in the yards and gutters, offal and refuse from slaughter-houses, stable filth, neglected privies and drains from sinks and water-closets, dead animals decaying along the river banks, and emanations from the vaults and tombs of the city grave yards.

This latter theory of Dr. Barton's is the one most generally adopted by the community at large, both in the medical profession and out of it; and, without doubt, it contains the true theory in a general way, and mixed up with much that is erroneous, but it is too vague and general to be available. And still the boards of health are asking in vain, in which particular substance in the filthy city lies the germ of the disease? What kind of soil is that which, if disturbed, fills the atmosphere with pestilence and death?

Guided by observations during a residence of twelve years in the yellow fever region of the United States, during which time I have visited the West Indies and every town and city where this fever has prevailed, on the Atlantic, on the Gulf coasts and on the Mississippi River, and aided by such histories of the great epidemics as I could conveniently reach, I have arrived at this conclusion in regard to the nature of the cause of the disease in question:—The specific cause of yellow fever is a malaria arising from the decomposition of human excrementitious matter in an atmosphere of a constant high temperature. Moisture and stillness of the air contribute toward rendering an epidemic more intense and fatal; the latter by allowing the poisonous miasm to accumulate, and the former by facilitating its conduction to the lungs.

There is reason to believe that genuine yellow fever, attended by black vomit, may be artificially produced, on a small scale, even in the midst of an Arctic winter, by maintaining the conditions above named, and confining persons within the heated atmosphere for a few weeks.

This new discovery of the cause of yellow fever explains all the unusual phases of the disease, such as its appearing in a South American city for the first time; its ravages in the low marshy region of the delta of the Mississippi and on the high bluffs up the river; it accounts for its origin on shipboard on mid-ocean, and on the high dry rock of Gibraltar; also for the spo-
radic cases which take off but a single victim, as in the case of General Mitchell, at Port Royal, in 1862, as well as for the pestilential wave that sweeps over a whole city, like that at Shreveport at the present time.

It is to be hoped that practical applications of this discovery will soon be made in all places where the yellow fever is now prevailing. The key to the secret of preventing and arresting the pestilence is the knowledge of its cause; armed with this knowledge, health officers will find means to remove the cause. It may not be amiss, however, to suggest that antiseptics, or such articles as retard or prevent the putrefactive and fermentative processes, should not be used. The fermenting and decay are the very things we wish to promote; consequently, lime and chloride of lime are better for throwing into privies. But the best substance known for this purpose is proverbially the cheapest thing—dirt; dry dust, and ashes, and dry fine clay. These hasten decomposition and absorb all the noxious gases.

As the cleaning out of privies in a southern city in hot weather might originate an epidemic, and would always increase its fury if already existing, such work must be postponed until colder weather. The contents of such places should be covered several inches deep with dry earth, fine dry clay or ashes. If the drains from the water-closets cannot be purified, these institutions should be entirely closed up until cold weather. From the hour that this is done, and the formation of the peculiar malaria ceases, the force of the epidemic will decline; but, of course, it will not entirely disappear until the accumulating miasm that hangs like a fog over the city is moved off by the winds and diluted by the atmosphere beyond the infectious point.

No harm will result from any amount of excavations in the ground outside the city limits. The soil which it is dangerous to disturb is that on the surface, which is saturated with the filth above mentioned, as in many of the streets and yards of all cities. It has always been noticed that during an epidemic the business of grave and well digging is as healthful as any other.

J. M. HAWKS.

THE ASSUMPTION OF THE FUNCTION OF THE PHYSICIAN BY APOTHECARIES.

MESSRS. EDITORS,—Every physician is aware of the fact that apothecaries are in the habit of prescribing medicine when they should confine themselves to dispensing it. In acting thus, they do an injustice both to the persons who apply to them and to the medical profession; for they are not educated as physicians, and these persons are, for the most part, not impecunious, but are able to pay a physician for his advice. Neither are the ailments for which apothecaries prescribe always trivial, but they are, not rarely, of considerable gravity. This custom has grown to such proportions, that many physicians of Boston have discussed, privately, the feasibility of establishing pharmacies in certain localities in the city and putting them in the hands of competent persons, who should be put upon their honor not to encroach upon the province of the physician. A better way, perhaps, would be to encourage some honest, capable pharmacists to assume the responsibilities of such establishments. The majority of the regular physicians of the city proper would gladly send their prescriptions to these pharmacists, and handsome incomes would, undoubtedly, be derived from this patronage.

My thoughts recurred to this subject lately, upon seeing, in the window of an apothecary on Beacon Street, the show-card of one Humphries, who manufactures so-called "Homeopathic Specifics," and a large case of the "Specifics." This apothecary has received a very large amount of business from the physicians in the central part of the city. Their duty in the premises is plain, but I wish to ask if the selling of homeopathic remedies by apothecaries is not the straw which breaks the camel's back? Is it not time to encourage the establishment of respectable pharmacies?

Boston, October 15, 1873.

BEACON HILL.
Another death from chloroform in Cincinnati.

The Spectacle Island Nuisance, which has occasioned much discussion for several years, has at last been referred to the city Board of Health.

The Howard Association found it necessary to reduce the pay of nurses at Memphis from five to three dollars a day, whereon three hundred and twenty-five struck. They carried their point, of course, but, let us hope, a day of reckoning will come for such contemptible conduct.

An Odd Effect of Hypodermic Atropia.—In a note from Dr. Geo. N. Monette, of New Orleans, he says he recently injected into the left arm of a young woman suffering from muscular rheumatism the third of a grain of morphia and the sixteenth part of a grain of sulphate of atropia. In a few moments after, a scarlet rash appeared on, and was limited to, the right side of the body.—American Practitioner.

The process of incineration has received a slight encouragement on the Continent from the formation of a club at Hamburg, each member of which, on entering, makes a provision in his will that his remains are to be burned after death.—Med. and Surg. Reporter.

This strikes us a waste of raw material.

To prevent hydrophobia, the wound should be washed as soon as possible with warm water; the whole of its surface should next be blackened with Indian ink, and this washed out till not a trace of color remains. This process is to be repeated twice, and then lunar caustic applied over the whole surface of the wound. The application is to be repeated as often as the wound begins to heal, so as to keep it open for two months, and the system is to be kept slightly under the influence of mercury for the same time.—London Medical Record.

Cod-liver Oil Bread.—With a view of overcoming the repugnance of some patients to cod-liver oil, M. Bouchut has sought to mask the taste of the oil by incorporating it with flour and making a kind of bread of the mixture. This bread is described (Répertoire de Pharmacie, N. S., 1, 423) as not in any way disagreeable, and its success during several weeks is stated to have been very encouraging.—London Medical Record.

Extraction of Renal Calculus More Than a Century Ago.—The following is an extract from a letter to the New York Med. Record:

Dear Sir,—In a rather scarce book called "Mems., Maxims, and Memoirs, by William Wadd, Esq., F.L.S., Surgeon Extraordinary to the King, London, 1827," I find, on page 21, the following note or memorandum:

"Mr. Paul, a surgeon at Stroud, in Gloucestershire, lately extracted from the kidneys of a woman, by an incision through her back, a rough stone as large as a pigeon's egg and made an entire cure; it is the first of the kind ever performed in this kingdom.—Gent's Magazine, Aug., 1733."

Yours truly, J. H. Pooley, M.D.

In a paper on the Action and Sounds of the Heart, read before the British Medical Association, Dr. George Barton maintained that it was a mistake to believe that the ventricle is dilating when the arterial systole takes place. He summed up his views as follows:—1. The distended aorta reacts in immediate connection with the ventricular systole, crossing the sigmoid valves as its impulse is imparted to the wave. The sound produced in closing the sigmoid valves terminates the first sound of the heart. 3. The second sound is produced by contraction of the auricles, as they propel the blood through the auriculo-ventricular foramen, distending the ventricle. It appears to follow the first sound, but represents the commencement of a new beat.—The Doctor.
MEDICAL AND SURGICAL JOURNAL.

LAST year there were in England 1,455 coroner's inquests for suicide or self-murder—1,057 men and 398 women. According to official tables recently issued, there were, last year, 740 cases of attempted suicides, or one to 31,181 of the estimated population. In London there were 405 cases.—Dublin Med. Press and Circular.

PATRONESSES OF QUACKERY.—Since the days of St. John Long, when duchesses entered the witness-box to depose to the marvellous effects of that impostor's liniment, there has always been an irresistible attraction for the ladies of the upper ten thousand in any delicate bit of quackery. Globules are distinguish. There is none of the grossness or materialistic appearance which belong to an apothecary's bottle, globules and dilutions being to medicine what the fragrance of an herb is to its medical potency. It is interesting to be in delicate health, and, under homoeopathic guidance, that ladylike characteristic may be indulged without the discomforts of nasty bottles. Accordingly, the crème de la crème are, at least, professing homoeopaths, and we observe from the prospectus of a Homoeopathic Bazaar that titled patronesses are neither scarce nor undistinguished. H. R. H. the Duchess of Cambridge leads off, supported by five other duchesses. Five marchionesses follow, among whom are especially notable the Marchioness of Westminster and the Marquise de Caux (Madame Adelina Patti). Next we have ten countesses and nine viscountesses, the Countess Granville leading this division. Then we find about fifty "ladies" or "baronesses," including such names as Ebury, Elcho, Lawrence, Rotchschild, Seymour, Havelock, Erskine, &c. The mere honorable and untitled ladies who bring up the rear are grand enough to shed lustre on any ordinary cause, including as they do such names as Mrs. Milner Gibson, Mrs. Knatchbull-Hugessen, and others whose husbands' names are linked with wealth, talent or fashion.—Dublin Med. Press and Circular.

NOTES AND QUERIES.

"ECCLESIASTICAL COUNCIL.—The council held a secret session in the evening, and will announce the decision this afternoon." (See daily papers.)

Where were the reporters? Has "newspaper enterprise" declined since the prying into the councils of the Massachusetts Medical Society?

Pelllet.

QUERY.—Can any one tell a good and speedy way of producing counter-irritation, without disturbing the bladder, and at the same time cleanly?

X. P. Q.

Mortality in Massachusetts.—Deaths in fifteen Cities and Towns for the week ending October 18, 1873.

Boston, 139; Charlestown, 13; Worcester, 14; Lowell, 32; Chelsea, 8; Cambridge, 17; Salem, 14; Lawrence, 8; Springfield, 3; Pittsburg, 4; Newburyport, 1; Somerville, 6; Fall River, 38; Haverhill, 6; Holyoke, 6. Total, 309.

Prevalent Diseases.—Consumption, 61; cholera infantum, 29; scarlet fever, 21; typhoid fever, 20.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

Deaths in Boston for the week ending Saturday, Oct. 25th, 120. Males, 61; females, 59. Accidental, 2; apoplexy, 1; inflammation of the bowels, 1; bronchitis, 2; congestion of the brain, 1; disease of the brain, 4; cancer, 1; cerebral-spinal meningitis, 1; cholera infantum, 9; consumption, 7; convulsions, 3; debility, 3; dyspepsia, 1; diarrhea, 5; dropsy, 4; drop of the brain, 1; drowned, 1; dysentery, 2; diptheria, 3; exhausted, 1; erysipelas, 1; scarlet fever, 1; typhoid fever, 10; "frost-bite of leg," 1; gastritis, 1; disease of the heart, 2; hernia, 1; intemperance, 1; disease of the kidneys, 1; disease of the liver, 1; congestion of the lungs, 2; inflammation of the lungs, 6; marasmus, 6; old age, 3; paralysis, 3; premature birth, 2; peritonitis, 2; pernicious disease, 4; scrofula, 1; strictures of the urethra, 1; disease of the spine, 1; teething, 1; tabes mesenterica, 1; whooping cough, 2; unknown, 3.

Under 5 years of age, 55; between 5 and 20 years, 8; between 20 and 40 years, 32; between 40 and 60 years, 1; over 60 years, 11. Born in the United States, 61; Ireland, 27; other places, 12.
LIFE AND DISEASE.

By Alfred Hosmer, M.D. Harv.

Read before the Massachusetts Medical Society, June 3, 1873.

Although the records of mortality not unfrequently present instances of marked longevity, it is, nevertheless, safe to assert that the majority of deaths do not occur in obedience to the inexorable law of self-limitation, which puts a period to the greatest possible length of human life. The results accruing from a more exact appreciation and a better application of the principles of science, both medical and sanitary, prove that in the past, at least, even if it be not true of the present, although individual existence cannot be indefinitely prolonged, the average duration of life has fallen considerably short of what might have been attained.

On the one hand, then, life implies death, and that in two senses; constantly, in that every organic effort disturbs the vital connections of a certain quantity of tissue material; ultimately, in a mode that needs no description. The time at which death takes place may be accidental—and I wish the word to suggest something besides mechanical violence or active poison; it is often premature, through some one of the numerous forms of disease; it is rarely, if ever, natural from simple senility. I say rarely, if ever, natural, for we have ceased to expect in the structure of the human frame such uniform perfection of all its parts that death shall not be a process involving a series of consecutive changes, but a rapid and simultaneous abolition of all those functions whose integrity is essential to the phenomena of healthy life.

On the other hand, fatal disease, with its diversity of character and location, and its infinity of phases with nominal identity, stands in a very close relation to life, giving that word a broad and comprehensive definition.

I believe that every act which an individual performs, though it be as simple as eating, sleeping, or any ordinary form of exercise; every effort which he makes, be it mental or physical, and every variation in the time and manner of performing that act or making that effort, constitutes an influence or agency which modifies his whole subsequent existence. And his relation to health or disease...
at any instant involves no small degree of personal responsibility, and is the product of two factors, of which one is his congenital condition, and the other the combined result of all those influences which have successively affected him. Those influences may be such as he has created or selected for himself, or may originate in agencies beyond his control. Modes of life play a most important part in the determination of the quality or degree of health, and the quality of health underlies the duration of life. Fatal disease is often not simply the termination but the result of life, as parturition is the result as well as the termination of utero-gestation. This comparison I use simply for the illustration of an idea, and not for the purpose of furnishing arguments from analogy in support of it. But to give it all possible force I will insist upon two points. Whatever it is that initiates the parturient movement, it is something connected with the process of gestation. There is also something else in that process, acting perhaps at and from the instant of conception, which decides what in loose language we are disposed to regard as the accidents of the fetus, its sex, weight, proportions, presentation, position. The most limited obstetric experience recognizes the intimate connection between these elements and the character and results of labor.

The broad proposition here laid down may seem bold and untenable to those who claim that the system is intended to resist all impressions of moderate force. But the view that men may live themselves to death, although the expression has a paradoxical sound, is in complete harmony with the simple theory which has not yet been invalidated or superseded by a more acceptable one, the theory which declares that disease forms a part of the plan of creation, and intimates that some provision for its development has been incorporated into the very nature of man's constitution.

The position assumed stands upon some of the simplest and strongest facts of the human economy. For instance, disease induces atrophy; insufficient use interferes with growth and invigoration; over-use leads to exhaustion. Proper use not only increases strength and enlarges capacity, but is indispensable to all high development, as tension is essential to the manifestation of elasticity in materials which possess that property. Fortunately, what constitutes proper use is not judged by the standard of a geometrical line, but the terms can be applied with no small latitude of meaning. The same numeral does not always represent the specific gravity of the urine in health, and this is true also of the frequency of the pulse. As every voluntary act implies some degree of use, it follows with logical necessity that such act must cause some change in the system, favorable or unfavorable, with reference to its susceptibility to morbid influences, and its reactive power under existing disease. When we consider that the system is in such unstable condition of perpetual change that even the exact weight of the body cannot be a
constant quantity, and that there is such unceasing variation in the balance between constructive agencies and destructive processes that the antagonistic forces which play within and upon the body are in apparent equilibrium only, we realize a state of things which affords the best possible opportunity for the influential action of trivial agents.

We may seem to invest with undue importance things which are commonly adjudged to be insignificant and of no account. But the law of gravitation assigns a part in the exhibition of force to every atom in the universe, and attributes the same quality alike to invisible particles and gross masses. Repetition, like the longer arm of a lever, can give visible efficacy to the slightest manifestations of power of which the single expressions seem as nothing, and the results of daily observation abundantly illustrate the rule of cumulative influence. The decisive character of the last ounce, the last blow, or the finally successful effort, is largely derivative. A single glutinous indulgence does not suffice to establish a chronic dyspepsia. A single excess will not explain an attack of delirium tremens, and one alcoholic draught will not, with an ordinary predisposition, excite a paroxysm of gout. What I would call an artificial phthisis, in contra-distinction to one that is natural and inevitable, does not come from a brief exposure to those causes which undermine nutrition and determine physical deterioration. It may be remarked that the magnitude of the element of personal accountability, which enters into the matter of the time and mode of decease, converts a considerable portion of mankind into suicides; and so it is. The intrinsic nature of crime has no reference to rapidity of commission. Suicide does not necessarily imply violent or speedily effective measures; but it does properly include every voluntary act of the individual which shortens his life by the space of a single moment. The exigencies of any age may demand the sacrifice of men, and it seems to be ordained that the world's life and progress shall be sustained at the expense of individual wear. But outside and beyond all this, as physicians well know through the testimony of professional experience, large numbers, by honest, earnest and indiscreet exertions, are making themselves irrevocably bankrupt in health and recuperative power, and are hastening dissolution by means less gross and repulsive, but not less effectual than the Japanese section of the abdomen. They die prematurely in the name of some reputable disease which excites no suspicion, and does not suggest to the world the idea of self-destruction. In common phrase, they pay the debt of nature; but it is nature provoked and thwarted by human folly or human misfortune.

Following this train of thought a little further, it is obvious that whatever is suicidal in its effects upon one generation, is, by the law of hereditary descent, homicidal for those who follow. The degeneration and extinction of families, once strong in vigor and num-
bers, are well attested facts. But offspring derives its character through as well as from parents. Witness the occurrences which are catalogued as instances of atavism. Congenital condition, which really is so important a part of one's stock in life and health, is not simple, but extremely complex in the elements of its composition; and, in its production, looks back to manifold influences, which, appearing at various ancestral points, move, with inevitable and innumerable modifications, along converging lines of transmission, and by their final union in each individual combine to form what we designate by the comprehensive term constitution.

There are competent persons who hold the opinion that, with all due allowance for numerical growth of population, there is an increase of insanity and of other disorders of the nervous system. This greater prevalence of these affections may, I think, be traced to the circumstances under which procreation takes place, and may be adduced as an instructive example of the influence which modes of parental life exert upon offspring. Active brains do not necessarily render an age thoroughly and truly intellectual, but they surely make it a busy one. In our own day, the wider and still expanding scope of general information, the elevated standard of education and the methods of attaining to it, the sub-division and multiplication of details in all scientific studies, the anxieties and competitions of business, the ambitions of political life, all tend to beget a permanent state of mental tension and nervous excitement, such as formerly were only known in times which seriously disturbed the public tranquility. Out of this condition of over-exertion and partial exhaustion children are born, with antecedents and prospects which no thinking man would select as favorable to the stability and durability of the nervous system. If daughters are often disparaged by the comparison which is made between their infirmities and the overwhelming energy of their mothers, it may be that the former are only bearing a burden of debt increased by an extravagant expenditure of force on the maternal part.

The question of the definite, specific causation of disease has long attracted an earnest attention from both scientific and popular sources. By the extent of its discussions, every text-book confesses the interest attaching to the subject, and rarely a patient who fails to demand the reason of his illness. Curiosity constantly propounds a problem for which philosophy is unable to furnish an exact, complete and satisfactory solution.

In answer to a question which inexperience only would ask, the late Dr. James Jackson replied, "I should be glad to know all the causes of disease, but during a long and diligent life I have looked for them in vain." We may acquire some positive information concerning the immediate associations and connections of disease, but many of its causes stand in such intimate relation with the habitual and exceptional acts of daily life in more than a single generation,
that these causes escape detection by all available means of analysis. The thoughtless deed of some remote progenitor may participate in the origination of the malady which terminates fatally to-day.

The customs of society, often found in effective opposition to the interests of good health, are but the aggregate of the habits of its members. And if these customs sometimes engender disease, the sufferer is only exposed to the reversion of his own improprieties, and is forced to accept consequences in the responsibility for which he has his just share.

The common notions of disease convey to the mind the idea of what endangers or destroys life. But as this impression is not capable of universal application, I wish to invert my subject, and making disease the first term in the series, recall a few facts which show that it may sometimes perform a salutary and protective office. And, in this connection, two or three brief suggestions will suffice. Certain contagious diseases, almost universal in their visitations, capable of running a thorough and complete course, without apparent detriment, afford a protection which is absolute for the majority of those whom they attack. Oftentimes, a safe disease may anticipate and prevent one that is probably or surely destructive of life. This conservative morbid process may be of artificial origin, as from the introduction of vaccine virus, or may arise spontaneously, as in those cases where an adhesive inflammation of limited extent saves one from a general and dangerous peritonitis.

With obvious limitations, disease comes as a benediction to those who, with some mistaken ideas of necessity or propriety, defy natural law and ignore the relations which have been established between the intensity and duration of effort and the subsequent repose which the expressions of that law require. An illness of a severity just sufficient to produce complete disability and to secure unreserved surrender to the condition and course of disease, may, by the state of inaction and rest thus imposed, bring a long-needed adjustment to any man who has assumed, or had thrust upon him, burdens in excess of his strength. There is a popular impression, vaguely conceived but with some small foundation, that disease may be wholesome and conducive to health; and many a patient has found himself, at the completion of his convalescence, not simply restored to the point at which the disease made its invasion, but literally refreshed and renewed.

No elaborate machine is complete unless it is provided with some self-acting apparatus which shall take cognizance of anything which threatens the perfection of its product, or the safety of some of its parts. Many people are not superior to inanimate objects in the intelligence and discretion which they exhibit with reference to the care of themselves. For them, it is a piece of enviable good fortune when disease comes to their rescue, as a regulating and restraining agent, like the automatic contrivance in mechanics, and saves
them from transgressions of which the results may be without remedy. Such good fortune is the portion of but few; for the average human system is rich in self-protective power, and the determination with which it instinctively seeks to maintain its integrity to the last is strikingly shown in two instances. The appearance of unusual health which frequently precedes a seizure, seems to be the final effort which the system makes, under the stimulus of some premonition, to resist the approach of disease. In close analogy with this, is the improvement often noticed in symptoms just before death; a delusive change, which is simply the evidence of one last attempt to rally before yielding in a hopeless struggle.

A CASE OF POISONING BY FIVE GRAINS OF STRYCHNINE TREATED BY CHLOROFORM INHALATIONS. RECOVERY.

By G. W. COPELAND, M.D.

As the following case may be of some interest, I will submit it to the profession.

Mr. B., shop-keeper, a middle-aged man of temperate habits, while suffering from depression of spirits, obtained, on Sept. 1st, ten grains of strychnine, representing his intentions were to poison a dog. He secured a room at a hotel, took a dose of laudanum as a preparatory step, and went to bed, intending to swallow the drug as soon as the effects of the opiate were apparent. It appears he fell asleep, and did not awake till half past four in the morning, when he took half the quantity previously mentioned. Some time after, he was seized with convulsions. The occupants of the adjoining rooms, awakened and alarmed by his screams, at length came to his relief. I was called and saw him at 6, A.M. I found him lying in bed; legs and arms extended, his hands firmly clenching the sides of the mattress; intellect clear. He confessed he had taken strychnine. The clothing, by his request, had all been removed, as the slightest touch produced a spasm. I administered twenty grains of sulphate of zinc as soon as it could be obtained. This he swallowed with great difficulty, the contact of the solution with his mouth producing trismus and constriction of the throat. The paroxysms came on every three or four minutes. He was conscious of their approach, and entreated us to hold him, to raise him up, or lift him out of bed, till his body became fixed, his head drawn back and articulation impossible. In this condition of complete opisthotonos, he remained for about a minute, his face livid, and death apparently inevitable. I now resorted to chloroform inhalations, with the happy result of preventing each paroxysm from lasting over a few seconds, or subduing it before the muscles of the back became rigid. So soon as he felt one coming on, I applied the vapor to his mouth;
when the muscles were completely relaxed and the breathing natural, I removed it. The convulsions returned regularly till 2, P.M.; the intervals then grew longer till 5, when the paroxysms entirely subsided. For some time after he regained the use of his hands and arms, the legs could not be touched without producing a shock, as if the poles of a battery had been applied. In the eleven hours, he had used over a pound of chloroform. During the night and next day, I found it necessary to relieve the bladder with the catheter. The following evening—thirty-six hours after I first saw him—he was taken home in his carriage, and a week subsequently he walked to my office, although still suffering from soreness and stiffness of the muscles.

In this case, the sulphate of zinc did not produce emesis, nor did I repeat the dose, feeling confident the drug must already have been absorbed. And here I would state that the treatment given in all the books, viz., "give emetics, and persist in their use till free emesis is produced," should at least be modified. If we do not see the patient till a quarter of an hour after the poison is taken, or if convulsions have set in, emesis will surely do much harm. In a case I saw in Philadelphia in 1868, the patient was nauseated with doses of sulphate of zinc and ipecac. Each attempt at emesis produced the most alarming convulsions. With chloroform to ward off the convulsions till the poison is eliminated from the system, deaths from strychnine will be very rare.

50 Maverick Square, Boston.

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OXIDE OF ZINC AS A REMEDY FOR THE DIARRHOEA OF INFANCY AND CHILDHOOD.—Dr. Brakenridge has carefully tried various methods of treatment in many hundreds of cases of diarrhoea of infancy and childhood, at the dispensary of the Edinburgh Royal Hospital for sick children. The above remedy he has been led to adopt for the following reasons: First, the disease depends chiefly upon a weak and too impressionable state of the nerve centres presiding over alimentary secretion; secondly, it is correlated to convulsions and other spasmodic diseases; thirdly, it is accompanied by hyperæmia of the secreting surfaces of the alimentary canal. To meet these indications, we must have a remedy which is, firstly, tonic; secondly, anti-spasmodic; thirdly, astringent. In the oxide of zinc we have these three properties combined. First: as a tonic, it has been said to be to the nervous system what iron is to the blood. Its usefulness in the analogous condition of profuse sweating is well known. Secondly: as an anti-spasmodic, it is deservedly held in high estimation, and has been found to effect, frequently, a cure in convulsions and other spasmodic diseases. It may, therefore, be depended upon to prevent the occurrence of those nervous diseases which stand correlated to diarrhoea, as the alternative results of such irritations as dentition, worms, &c., and which may supervene on the rude stoppage of diarrhoea by astringents. Thirdly: its astringent properties are well known.—Medical Times and Gazette.
Progress in Medicine.

REPORT ON OPHTHALMOLOGY.

By O. F. Wadsworth, M.D. Harv.

ANATOMY.


Hoyer describes, separately, the distribution and termination of the nerves of the cornea in the four classes of vertebrates, and adds a valuable critical review of the literature of the subject. Like other recent observers, he found chloride of gold the most valuable reagent for his purpose. There is only space in this report for a brief account of the corneal nerves in man. Branches of the ciliary nerves enter the sclera near the corneal edge, and form within it a meshwork which surrounds the cornea. From this meshwork, some sixty separate nerve bundles, each containing from one to twelve or more medullary fibres, enter the cornea, the larger bundles nearer its posterior, the smaller nearer its anterior surface. Soon losing their medullary sheaths, the nerves form numerous plexuses in the corneal substance, and, finally, a meshwork with small interstices in the most anterior layers, some meshes immediately beneath Bowman's membrane, others somewhat deeper, some consisting of finer, others of coarser fibres. The splitting up of the axis cylinders into minute fibres and the manner of formation of plexuses are carefully detailed. Nowhere, Hoyer considers, do true anastomoses occur. The nuclei which are present in some of the larger branches and at the intersection or division, are not ganglion-cells, but belong to the neuroglia. From the superficial network above described, numerous small branches penetrate Bowman's membrane, and spread out, tassel-like, to form a close network of fine fibrils on the surface of the membrane, in immediate contact with the lowest epithelial cells (sub-epithelial layer). Toward the centre of the cornea, this meshwork is closer, closest a little to the nasal side. In Bowman's membrane, no nerves exist, except the perforating branches. Between the epithelial cells, and especially between the flattened cells of the superficial layers, the sub-epithelial meshwork is continued and numerous free terminations of the fibres occur, particularly among the flattened cells, and appear to reach to their free surface. Similar free ending of the nerve fibrils is described in the substance of the cornea; tolerably frequent in the anterior
layers, seldom in the middle, and in the posterior only exceptionally present. The greater portion of these fibres which end free, Hoyer regards as belonging to a characteristic meshwork lying just beneath Bowman’s membrane, the fibres of which contain no nuclei, and which is closest nearest the periphery, more scanty toward the centre of the cornea. Connection of the nerve fibres with the corneal corpuscles (see Journal, Nov. 7, 1872), or terminal enlargements at the free epithelial surface (Cohnheim), Hoyer was unable to discover.

2. Durante describes, in the frog’s cornea, besides the nerve plexus in the deeper layers, an exceedingly fine meshwork in the anterior layers, its meshes regularly rectangular, which he regards as due to a true anastomosis of primitive nerve fibres. The fibres which perforate the anterior layer of the cornea to reach the epithelium, he states, pass directly through the lower cylindrical layer of cells, and wind through the other layers to the layer next to the outer, where they form a meshwork of fibrils, with irregular and narrow meshes. In the rabbit and dog, the same terminal network exists, with slight modifications. Durante has never observed ganglion-cells within the peripheral portion of the corneal nerves; the not infrequent nuclei he, as Hoyer, believes are of connective tissue.

3. Laugerhans finds that the apparently homogeneous border at the base of the innermost layer of cells of the cornea is caused, as Henle has stated, by the interlocking of fine serrations at the base of the cells, with similar projections from the corneal tissue. Similar serrations occur on the upper surface of this layer, and on both upper and under surfaces of the other layers, excepting the upper surface of the outer layer. The serrations are of various degrees of fineness in different animals, in man very fine. The cells of the different layers take on a great variety of shapes from their mutual pressure, the lower surfaces in general being concave and receiving the summits of the cells of the layers beneath; the upper, convex. Often from the lower edges of the cells, digitations press downward between the lower cells, and especially is this the case with the second layer, the digitation of its cells often reaching to the cornea itself. In the conjunctiva of the lids, the appearance of the cells is quite similar, but the connection of the lowest layer with the connective tissue below is less close.

4. Wolfring has discovered, in the upper part of the tarsus of the upper lid, toward the nasal side, a number of acinose glands. These glands lie not only in the triangular space between the blind ends of the Meibomian glands and the orbital edge of the tarsus, but also occasionally are present between the lobes of the latter. They open by common ducts at or near the orbital edge of the tarsus, and resemble the glands of Krause in the conjunctival fold in everything except their situation, while in the deeper inflammations of the tarsal conjunctiva they undergo the same pathological changes as Krause’s glands.

The glands described by Wolfring correspond in position to glands which Klein had previously given an account of in Stricker’s handbook. Klein, however, regarded them as tubular, not acinose.

5. Gruenhagen has, in previously published papers, taken decided ground against the existence of a dilator muscle of the iris. The present paper consists mainly of a criticism of the views of those observers who have described such a muscle, and it does not appear that he has pursued any fresh investigations to support his side of the ar-
argument. Strangely enough, he seems to place considerable weight on the assumed fact that, on physiological grounds, there is no need of a dilatator, while other writers, even though admitting the insufficiency of anatomical proof of its presence, have argued that, unless such a muscle does exist, it is at least extremely difficult to offer a satisfactory explanation of some movements of the iris. He points out the differences which exist in the various descriptions which have been given of this muscle, and divides its supporters into two classes: those who believe it to consist of bundles of fibres curving from the sphincter to take a radial course, and those who regard the layer first described by Bruch, lying between the stroma of the iris and its posterior epithelium, as muscular. The radial bundles of fibres curving from the sphincter he admits, but not that they extend so far toward the periphery as some have stated; they act, he believes, in assisting the contractions of the sphincter, as drawing on the crossed ends of a necktie makes it tighter. Bruch's layer he asserts to consist of elastic tissue. He admits that, in some birds, beneath the posterior pigment layer of the iris, there exists a layer of spindle-formed cells, on the side of which an elliptical nucleus is situated, and which often taper to fine processes at the two ends; these, however, he regards as a second layer of epithelium.

6. Merkel, as the result of recent investigations, describes a continuous layer of muscular fibres situated immediately behind the stroma of the iris, and having a direction radiating from the pupil. The thickness of the layer was only from one and a half to two times that of the thickest portion of an individual fibre. Near the pupil, the more anterior fibres curve round to join the sphincter; the more posterior end without changing their course. The muscle does not quite reach to the ciliary insertion of the iris, but near the ciliary body its fibres curve so that they here form a circular layer. In the greater portion of the layer, the fibres follow a straight course. These statements agree very nearly with the results obtained by Jeropheef, given in brief in Stricker's Handbook. Both nuclei and fibres were rendered readily distinguishable by staining with haematoxylin.

Physiology.

1. Lilienfeld undertook a series of experiments to determine whether substances dropped into the conjunctival sac generally pass into the intra-ocular fluids. Most of the substances employed were found to be present in the aqueous humor; with few exceptions, these were such as excited more or less inflammation of conjunctiva, cornea and iris, and this fact Lilienfeld believes is of importance as favoring the passage of materials from the conjunctiva into the aqueous. He thinks endosmosis through the cornea is at least not the only way of explaining the matter; but that it is equally possible that substances may be absorbed into the largest vessels of the conjunctiva, pass through the anterior ciliary arteries into the vessels of the iris and ciliary body, and thence be excreted with the aqueous into the anterior chamber.

2. Schoeler's paper is of decided scientific value. In the limits of this report, however, it can only be stated that his investigations, among other results, appear to overthrow entirely the theory of identity of corresponding points of the retinas, and to show that the mechanism of associated movements of the eyes, as well as of those attending accommodation, is not, in the new-born, pre-established.

3. Van der Meulen deduces, from experiments made in Donders's laboratory, the fact of practical importance that, if one eye be normal, vision of even \( \frac{1}{3} \) of the other eye may be of considerable assistance in determining the distance of large objects.

4. Hensen and Völckers, in a monograph on the mechanism of the accommodation, published in 1868, stated that they had been able to demonstrate, in the eye of the dog, a movement of the choroid forward when accommodation for the near occurred. The eye having been laid bare, and needles passed through the equatorial portion of the sclera and choroid, the ciliary nerves were irritated, and, as the pupil contracted and the lens became more convex, the free external ends of the needles underwent a decided movement backward. By making an opening in the sclera, they were able also to see the choroid advance. The theory that a similar movement took place in the human eye has never, however, obtained any general acceptance. Others had, indeed, confirmed their observations on the dog, but Adamik, experimenting on cats, found but little movement of the choroid, and argued from this and anatomical consideration of human eyes, that such a movement could only take place in eyes in which the ciliary muscle contained no circular fibres, and in which the outer attachment of the zonula of Zinn is situated more posteriorly. The same observers now give the result of investigations on the eyes of man, the ape and the cat. The two latter were curarized, the eyes laid bare, and needles inserted through the sclera. The results of electrical stimulus showed, as in former experiments on the dog, evident movement of the choroid. The difficulty of obtaining freshly enucleated human eyes in which the choroid and ciliary muscle might be supposed relatively normal, limited the number of their experiments in this direction to four. Three of these eyes gave negative, or nearly negative results; all of them, however, were under the influence of atropine, and in all subsequent dissection showed a high degree of degeneration of the ciliary muscle. The fourth eye, the ciliary muscle and choroid of which were in good condition, gave results which corresponded entirely with those obtained on other animals. Needles, inserted in the equatorial region, showed exact and evident movement of their free extremities backward; a needle insert-
ed in the ciliary body did not move, and one inserted close to the macula lutea, as had also been the case with the ape, remained stationary. The experiments appear to be convincing, and their importance, as explaining the mechanism of the changes which take place in myopia, is not inconsiderable.

5. Donders takes up again the question of accommodation in aphakial eyes, which, previously regarded as positively settled, was reopened by Förster, in the Monatsbl. f. Augenheilk., Feb. and March, 1872 (see Journal, Nov. 7, 1872). He points out the numerous inaccuracies and fallacies in Förster's argument, and shows, by the results of a series of crucial experiments carried out by one of his pupils, the details of several of which are given, that absolutely no accommodation occurs in aphakia. With regard to the supposition of Woinow, from observations on aphakial eyes, that the cause of astigmatism, as well as variations in its degree, &c., may depend on the form of the sclera, the impossibility of such a connection of cause and effect and the ease with which an error of observation might be made are referred to. Much the same supposition as that of Woinow was brought forward at the meeting of the American Ophthalmological Society, in 1872, and was then well answered by Dr. Hay.

6. Mannhardt, from independent observations, comes to the same conclusions as Donders.

7. Stokes combined a positive and negative cylinder glass so as to produce at will a cylindrical glass of varying focus. One great objection to the use of this glass in practice was the fact that the direction of the cylindrical axes changed with every change in the strength. Snellen describes a modification of the lens, by which the important advantage is gained that the axes are maintained constant. Still, the disadvantage exists that, in the determination of astigmatism by its means, the refraction of only one meridian can be determined at a time. The employment of two positive cylinders, instead of a positive and a negative, removes one element of difficulty, but introduces another, since with the latter combination a certain varying spherical effect is obtained as the cylindrical effect varies. Snellen proposes to obviate the latter difficulty by combining with the Stokes lens two spherical glasses (a positive and a negative), arranged on the principle of the Galilean telescope, and, by changing the distance between them as the cylindrical lenses are rotated, to neutralize the spherical refraction. The technical difficulties in the way, he believes can be satisfactorily overcome. On the same principle, that of the Galilean telescope, he proposes to construct double spectacles, with which different degrees of spherical ametropia may be determined.

8. Puroos describes the method he has employed for testing degrees of ametropia with the modified Stokes's lens. From the account given, it would appear to be much less convenient than the methods usually employed for this purpose, even if it be as accurate.

[To be concluded.]

In the Introductory Address at Queen's College, Birmingham, on "Public Health," Mr. Clay, the orator, stated that the Court Rolls of Stratford-on-Avon showed that Shakspeare's father had been fined, in 1552, for depositing filth in the public street, and again, six years later, for not keeping his gutter clean.
Bibliographical Notices.

Clinical Reports from Private Practice. By John Herbert Claiborne, A.M., M.D., one of the Vice Presidents of the Medical Society of Virginia; lately Surgeon in the Provisional Army of the Confederate States; and Executive Officer in charge of General Military Hospitals at Petersburg, Virginia. Petersburg, Va.: Jos. Van Holt Nash, Publisher. 1873. 8vo. Pp. 424.

This book is a collection of cases occurring in the private practice of a physician during a period of twenty years, with commentaries on certain subjects suggested by them. The cases are briefly but clearly reported, and chiefly intended to illustrate the subjects of the treatment of the diseases most frequently coming under the cognizance of the general practitioner, surgical cases being excluded. The author states that his patients are mostly composed of well-to-do people, who have lived under good hygienic conditions, and who were generally free from depressing influences. Such people, he says, bear mercury, depletion, and the antiphlogistic regimen better than that class whose cases ordinarily make up the reports of hospitals, infirmaries, college clinics and other public charities. We accordingly find a more active treatment recommended in certain cases than is customary in this latitude; and especially we have noticed that calomel is prescribed to nearly every patient in some stage of his disease; but, with this exception, we do not see that Dr. Claiborne's treatment differs materially from that which intelligent practitioners in all parts of the civilized world have adopted as the best. We have been much pleased with the perusal of the volume, and can conscientiously recommend it as worthy of the attention of the profession, and especially useful to those who have much occasion to treat malarial diseases. We can only briefly allude to a few of the subjects discussed by Dr. Claiborne, and to his opinions upon them.

In the treatment of Dysmenorrhœa, the author places more reliance on constitutional treatment, and on internal remedies, than on incision of the cervix uteri, believing that the latter proceeding, though sometimes demanded by a constricted condition of the canal, or internal os, is, in the majority of cases, useless. He protests against that indiscriminate use of the knife which is enjoined by some eminent gynaecologists. "In every case of dysmenorrhœa which presents itself, and especially in the case of every unmarried woman, a rational medical treatment should be tried before resorting to the use of instruments." In the neuralgic form of the disease, he advises quinine, cold baths, &c., to build up the general health, and, during the paroxysm, opiates, hot fomentations, aconite and anodyne suppositories. In active congestive dysmenorrhœa, he recommends the bichloride of mercury, in small doses, in the intervals, and, during the paroxysm, general or local depletion, hot baths, Dover's powder, camphor, &c. In the passive form, he employs iodide of iron; in rheumatic dysmenorrhœa, purging with colchicum and magnesia before the paroxysm, and Dover's powder when the pain comes on. He speaks of cyripedin as an empirical remedy of some value in this disease.

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all cases, he considers it very important to maintain a healthy action of the "cutaneous glands," and recommends a judicious system of baths, with flannel worn next the skin, summer and winter.

The author's remarks concerning the treatment of Rheumatism are interesting, in view of the great diversity of opinion on that subject. He is not by any means disposed to leave his patients to Nature alone; at the same time he is moderate in the administration of medicine. "Mercurials in the commencement of the disease," he says, "colchicum and alkalis, especially the phosphate of ammonia, when the symptoms become sub-acute, the iodide of potash when the patient is pale, feeble and spiritless, constitute the routine of treatment with me." Mercury is used "to correct the intestinal secretions," not for the sake of its constitutional effect. Opiates he gives only to the extent of alleviating pain and procuring rest for the patient. Quinine is required in cases complicated with malarial poison.

The subject of the treatment of Pneumonia is fully discussed, but without any satisfactory results. Dr. Claiborne justly observes that "climatic changes, endemic influences, constitutional peculiarities, age, season, prior or repeated attacks, present condition of patient, all combine to influence the treatment, and especially to render a description of general treatment difficult and unsatisfactory." He does not seem to be aware that the great majority of cases of uncomplicated pneumonia will recover quickly and perfectly without any treatment whatever.

Under the term Cholera Infantum, Dr. Claiborne includes all cases of diarrhoea in children during the period of the first dentition, as well as those characterized by frequent, profuse, serous discharges, with vomiting and collapse. It is not surprising, therefore, that he does not consider the disease as peculiarly frequent in this country. We think, on the contrary, there can be no doubt that the genuine disease is comparatively rare in Europe. He still adheres to the old notion that the liver is always affected in this disease, with the result of first "perverting, then suppressing the normal secretion." In the treatment, calomel is with him "the main reliance and the rarely-failing resource." One-fourth of a grain is given every hour, in finely-powdered ice, until the vomiting and purging are checked, or the passages assume a thick, greenish character. Brandy is also given if there be much prostration; counter-irritation is applied to the stomach, and breast milk, if practicable, if not, milk and water, in teaspoonful doses, ice-cold, every half-hour, or oftener. Opiates or astringents are subsequently given, according to circumstances. We commend the author's remarks on the use of opium in the treatment of children. to every young practitioner; he points out very clearly the danger of the incautious use of this drug. The whole article on the treatment of this dangerous disease is extremely interesting, and may be read with profit by every physician who has the charge of young children.

Diphtheria is the subject of a highly instructive chapter, in which the author treats of its contagion, its diagnosis, its treatment, and the question of its identity, or the reverse, with croup. He believes in the duality of the two diseases, founding his opinion on the supposed "stenic" character of croup, and the toxicohæmic character of
diphtheria. "Croup commences in the larynx, and, though it may extend downwards, never extends upwards. Diphtheria commences in the fauces, and though it may extend downwards, yet it very often extends upwards. The first symptoms of the latter occur in the parts subservient to deglutition, the first symptoms of the former in the respiratory tract. One is always idiopathic, the other secondary; one is affected by temperature and season, and is never epidemic or infectious; the other is capable of widespread epidemic influence at any season, and is sometimes infectious. Both are diseases peculiar to childhood; but diphtheria is often seen in the adult, croup rarely. In the latter disease, no unpleasant sequelæ ever follow recovery—such as paralysis, loss of vision, &c. In the former, such sequelæ often ensue. In one, the antiphlogistic treatment is generally indicated; in the other, it is productive of harm, unless used with great discretion. In the one, the prognosis is generally favorable, except in certain epidemics; in the other, it is exceedingly grave. The duration of one is rarely beyond ten days; the other often continues twenty. Convalescence from the one, prompt and speedy; from the other, tedious and uncertain." (Nothing is said about albuminuria.)

It may be remarked that these distinctive indications prove nothing. The two diseases may be really different, but the fact that an exudative affection of the throat is in one case followed, for instance, by paralysis, and in another not, does not prove it. We have seen a case in which well-marked diphtheritic paralysis of the limbs followed what was called by an eminent physician membranous croup. To say that true croup is never followed by paralysis is begging the question; we must first settle what true croup is, and then see if it be ever followed by paralysis.

Dr. Claiborne's remarks on the subject of the treatment of diphtheria are extremely sensible. He believes that it has often been treated too much. We are glad that he repudiates all caustic local applications, as only adding to the sufferings of the patient, without being of any benefit. He relies on a tonic, sustaining and stimulating treatment, with simple astringent or antiseptic gargles under certain circumstances. In one case, that of a girl, 11 years old, in which suffocation was imminent, he performed tracheotomy. The immediate effect of the operation was complete relief; but in less than twenty-four hours capillary bronchitis set in, and the patient died.

Under the title of Periodic Fever, the author discusses an affection frequently confounded with typhoid fever, which it resembles in some of its features, but which is a wholly distinct disease, of malarial origin, and curable by quinine. It is distinguished from intermittent fever by the mildness and irregularity of its paroxysms; and from the ordinary bilious remittent by the absence of severe constitutional symptoms attendant on its inception, and of any special bilious disorder. The disease is rarely fatal. Its duration, under appropriate treatment, is about six days, but it may last much longer if mistaken for typhoid and treated accordingly. Dr. Claiborne gives a dose of calomel and Dover's powder in the beginning; leeches either to the head or on the bowels, followed by fifteen or twenty grains of quinine.

An article on Delirium Tremens contains judicious remarks on treatment, to which we must refer the reader, merely remarking that the author is no advocate for the gradual withdrawal of stimulants, but
withholds them completely from the first. Nor does he believe the
attack is ever brought on by a sudden abstraction of the accustomed
stimulus. He recommends opium, but in moderate doses, and never
with the view of promoting sleep, warning the practitioner against
the danger of large doses of the drug in this disease.

We have by no means exhausted the topics which are discussed by
Dr. Claiborne; for much which we have left unnoticed we refer the
reader to the book itself, with the assurance that he will find it both
agreeable and instructive, although we by no means agree with the
author in all his views. We notice some faults in style and also in
taste, but these do not materially interfere with the value of the book.

_Treatise on Diseases of the Ear._ By D. B. St. John Roosa, M.D.

This handsome volume, of 525 pages, furnishes the American
student with a complete text-book on diseases of the ear. The ar-
rangements of subject matter and the double index of subjects and
authors gives it the further advantage of a book for ready reference.

Following a concise preface, in which the author sets forth the
object and scope of his work, "endeavoring to give not only a com-
prehensive digest of the most recent European researches, but also to
present with entire impartiality the views and experiences of Ameri-
can practitioners and writers, so far as the plan of a practical treatise
would allow," there is a table of contents and a list of 101 wood-cuts.
The body of the work opens with an introduction of 32 pages, consisting
of an interesting sketch of the progress of otology, giving the resumé
of the investigations in the anatomy of the ear up to 1858, and in aural
therapeutics from the time of Asclepiades to the present date; the
latter resumé affords ample food for the curious, in matters of ther-
apeutics. The second chapter gives the anatomy of the external ear,
illustrated by copies from the excellent plates of Henle. Of these and
engraved copies of the photographs of Rüdinger, the author has ad-
visedly availed himself in the illustration of the anatomical portion of
his work. The third chapter, of 32 pages, is devoted to the examina-
tion of aural patients, including the means for testing and recording
the hearing power, the use of the speculum, mirror, the air-douche and
Eustachian catheter and rhinoscopic examination. The fourth chapter
treats of the functions and diseases of the auricle; and the fifth and
sixth chapters, which conclude the first part of the work, comprise, in
a space of sixty pages, much matter of interest to the general practi-
tioner in the description and treatment of diffuse and circumscribed
inflammation of the auditory canal, the peculiar affection lately ob-
served as resulting from vegetable fungous growths, the diagnosis
and removal of inspissated cerumen, of foreign bodies and of polypi.

The second part of the work comprises 278 pages, of which 40
pages are devoted to the anatomy of the middle ear, giving in addi-
tion to quotations and plates from Henle and Gruber, the later obser-
vations of Kessel and of Rüdinger in regard to the anatomy and func-
tions of the Eustachian tube.

Chapter X. treats of injuries of the membrana tympani, and the
four succeeding chapters cover ground which is represented by from
thirty to thirty-five per cent. of all cases occurring in aural practice in
the form of acute and chronic non-suppurative inflammation of the middle ear; and this portion of the work is of particular value to the specialist as it is made to include the later contributions to the therapeutics of these affections, a subject which has received considerable attention during the past few years, especially from German observers. Acute and chronic suppurative inflammations of the middle ear occupy the next two chapters, following which a space of 72 pages, devoted to the consequences of the diseases, concludes part second, including the nature and treatment of aural polypi and a valuable treatise upon mastoid diseases, caries and necrosis, and a tabulated statement of forty cases, showing the course and symptoms of meningitis, cerebral abscess and pyæmia resulting from aural disease.

Part third comprises the anatomy of the internal ear, covering twenty-three pages. The diseases of the internal ear are tabulated according to their proximate and remote causes and then treated of seriatim; a method of presenting the subject which has practical advantages. In addition to wood-cuts in the text, is a colored lithographic plate of illustrative cases of disease of the membrana tympani and middle ear from drawings made by Dr. H. P. Quincy, including a normal membrana tympani and seven cases of suppurative and non-suppurative inflammation.

The work, as a whole, is a comprehensive summary of the present knowledge of the anatomy of the ear and of the diseases and their treatment. The anatomical portion of the treatise is so distributed as to make it most readily available to the practitioner who desires a work for reference, and while concise is still sufficiently full for the instruction of the general student. The description of the diseases and their treatment is the result of the author's own observation, and, together with comparative quotations from other writers, gives the latest results of the investigations in this branch of surgery.

The work supplies a need for a good text-book, which has heretofore been met to the English speaking student by the author's translation of Von Troltsch, published nine years ago.

C. J. B.

BOOKS AND PAMPHLETS RECEIVED.


The Death of Sir Henry Holland, lately announced, has removed another of the more prominent medical men of our time. He might, however, with more propriety, be considered to belong to an earlier generation of men than those who now occupy the leading positions in his own and other countries of Europe, his great age carrying him back to times which are with most a matter of history only. He was born Oct. 27, 1788, and took his medical degree at Edinburgh in 1811. He did not, however, begin the practice of his profession until 1816, the interval being passed in travel, during a part of which time he attended the Princess of Wales in a tour on the Continent. His professional career, owing partly to his social advantages and literary tastes, presented a marked difference from that of most medical men. From the very beginning, his practice was confined to the upper classes in society, and those who have read his "Recollections of Past Life," are familiar with the innumerable distinguished men and women with whom he was brought in contact. Indeed, it is to this peculiarity chiefly that his life is so full of interest. It is, in fact, a part of the history of the time. After nearly forty years of professional service, he was appointed Physician in ordinary to the Queen, and in the following year was created Baronet. His practice extended over a period of fifty years. Although a man of great literary tastes, he may be said to have contributed but little to medical literature; his Medical Notes and Reflections, which ran through several editions, being his sole work of this character. This may be explained by the fact that at no time during his career was he connected with any hospital. He wrote frequently for the Edinburgh and Quarterly reviews, and his accounts of travel have been numerous and interesting. Although an active practitioner for half a century, he found time, taken from his professional pursuits, to travel over a greater part of the globe, and to this activity may be ascribed a long life of health and usefulness. He proved to the profession that a healthful recreation is not incompatible with professional success, a fact which few men, in this country particularly, appear to realize. With him may be said to have passed away one of the last vestiges of the old school of men who ornamented London in the early part of this century.

We are much gratified at learning of the success attendant on the Harvard Dental School. It has, in its new class, three young men from
Europe: one from England, one from Holland and one from Germany. We have long known of the fame of American dentists in Europe, but this is, we believe, the first evidence that we have received that *Europe is coming to America to study* at our venerable University. It has reason to do so, for our methods of practising dentistry are vastly superior to the European, and the Harvard School has taken a high stand in regard to the length of time of study and of practical work it will require of its pupils before bestowing its degrees. In doing so, it has only pursued the same course followed in the Medical School, and it has put itself in full communion with other departments of the University, as carried on by its present enlightened government. We trust that this is only the beginning of a most honorable career for the Dental School. It has our heartiest good wishes for full success.

We are indebted to a correspondent for the following statement of the attention given in Italy to the treatment and study of disease of the skin and of syphilis. Boston would do well to take example.

The universities of Florence [pop. 120,000] and of Rome [pop. 210,000] possess special professors and clinics for diseases of the skin and for syphilis. Bologna [pop. 90,000], Naples [pop. 500,000], Palermo [pop. 170,000], Turin [pop. 185,000] and others have each a professor and a clinic for these two departments combined. Even such places as Pavia, Padua, Genoa and Messina recognize these specialties, though compelled to unite them with one of the general clinics. Medical students of the sixth year must regularly attend these clinics, and must pass a satisfactory examination in these branches before they can receive their diplomas. According to sanitary regulations enacted since the unification of Italy, the largest cities must possess special hospitals [syphilicemia]; smaller ones, special wards in their general hospitals; and cities with more than 20,000 inhabitants, at least a dispensary, for these diseases. By law, no impëcunious syphilitic patient can be refused admittance.

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**The Hospitals.**

**MASSACHUSETTS GENERAL HOSPITAL.**

Drs. Bigelow and Cabot commenced their service here last Saturday. A number of operations were performed. A case of hare-lip (complicated with cleft-palate) was that of a young adult who had been operated upon in infancy, and whose condition had been improved by Suersen's artificial palate. He now wished to have the appearance of the lip improved. Before operating, Dr. B. remarked that the success of this operation depended on a
free dissection of flaps, and the removal of so much of the lip as would extirpate the notch, if possible, and make the labial edge unite in a straight line. He knew no better incision for the edges which were to be united than a straight one—the first stitch to be exactly upon the line of the labial mucous membrane of both sides, the second through the nostrils, with such subsequent and intervening ones as might be required.

A necrosis was of eight years' standing, and had followed an attack of scarlet fever. It was peripheral in character and located in the tibia. The periosteaum had become much thickened, and was closely adherent to the skin for an area of one inch by five, with the loose bone as a centre. An incision of five inches was made in the axis of the tibia, down to the bone, the soft tissues scraped each way from the line of incision and the loose fragments removed. The softened bone which had made the bed of the sequestrum was then chiselled and gouged off by Dr. Cabot. He next excised a tumor of the neck, of nine years' duration, and about the size of a horse-chestnut. It had followed an attack of mumps, and was located in the superior carotid triangle, underneath the anterior edge of the sterno-cleido-mastoid muscle. An incision was made through the skin, and after a careful dissection through the fascia, the tumor was displayed attached to the posterior portion of the carotid sheath by a narrow pedicle; this was tied and the growth cut off; after which the vessels were tied and the wound sewed up.

Dr. Bigelow removed a congenital wen of the supra-orbital region, adherent to the periosteaum, and also exhibited a boy ten years old with a fracture of the surgical neck of the humerus, caused by a fall from a tree three weeks before. Union had taken place during this brief period, but with deformity, resulting from the considerable projection of the shaft in front of the head of the bone. The patient had entered on account of the deformity, but his motion was good. Dr. B. advised against re-fracture.

H. H. A. BEACH.

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Correspondence.

DOWN EAST, Oct. 25th, 1873.

MESSRS. EDITORS,—The information received by me concerning electricity was of great service, I assure you. Speaking of this subject to one of our craft, who lives less than a hundred miles from you, he gave me a little of his personal experience with electricity, which has been of very great use to my patients. He had seen the advertisement of electrical disks, and the recommendation of them in print by Boston physicians, even professors, and yet hadn't faith. By the way, why will medical professors allow their names to be used on quack medicine bottles? Some one who had them for sale said, "You laugh at this small battery. Did you ever try it?" "No," "That's enough; your opinion is of no consequence." Well, he thought differently; but for the sake of being able to say that he had tried it, he bought one, and had the salesmen tuck it under his undershirt, upon his chest, before leaving the store. He went home to dinner. Before he got through, there was more irritation than a porous plaster would produce. So he rubbed it between whiles, and passed the afternoon visiting patients and rubbing his sternum. Towards the close of the evening, a brother practitioner called, to whom he acknowledged that he had on a disk; that it produced great irritation; that he believed it would blister; wished his friend would look at the spot, and see the reason for his believing a disk would produce counter-irritation, &c. The clothing was raised. The disk was there. The skin was red. The most remarkable part of the tale was, however, that he'd got the disk on wrong side out, the enamelled cloth being next to the skin, and the disk against his shirt. Now, see how this has been
of use to my patients. You know, once, that they didn’t know how to operate a telegraph without two wires; but they found that the earth would answer for one of the wires, and so left one off. It seemed to me that if one wire could be left out of that circuit, as the battery is not very powerful in this circuit, perhaps the battery could be left out. The enamelled cloth is quite cheap, and I thought the gentle irritation produced by it might be of service to some patient, who couldn’t bear anything very strong, and thought he needed a plaster. You can buy a yard of it, and keep it on hand in sizes to suit purchasers. There are two or three colors, and, if you want to quack it a little, you can use the red for this complaint, the green for that, the black for something else. You can combine two of the colors in stripes, or three of them, if you please; or, in other cases, you can make radii of them. If you want a name, I would suggest the “Pleurodynia Plaster.”

There are a number of little contrivances for producing cutaneous irritation. Cabbage leaf will do it; dock leaf will do it; but none of them are equal to enamelled cloth, for cleanliness. They are dirty and smell bad. One who is walking or riding about don’t like to wear mustard. I remember, when I was very young, they used to raise blisters with boiled hammers. Old Dr. Twitchell, of Keene—peace to his ashes—once wanted to blister some one in a farm house, far from home. He had nothing with him to do it with. He asked the wife to find him a hammer. The article was brought out, put in the tea-kettle over the fire, and after the water steamed and bubbled well, he lifted it out and gently touched it to his patient in half a dozen spots over the seat of pain, with very positive effect. Boiled hammers were, for years, used in that neighborhood for pleurisy; and every old lady knew that nothing was equal to a hammer; and there was long a dispute, whether it should be a claw-hammer or not. I think the yeas finally conquered.

Yours truly,

RUSTICUS.

MESSRS. EDITORS,—The following history of nightmare, night terrors, or whatsoever name it may be designated by, is a physician-patient’s description of his own case. Always, from earliest childhood, the victim of bad dreams, an inheritance shared with brothers and sisters, he knew well how to pity children who, by mistaken parents, are made cowards, in trying to learn them to be brave and conceal their fears. The record was made on the day after the dream, and while the impression was very vivid.

“I had barely recovered from an attack of acute rheumatism.

“Sunday, April 30th, 1848.—After a moderate dinner of beefsteak, bread and potatoes, with part of a glass of ale, smoked a cigar, and, feeling tired, threw myself on the bed with a book, and, after reading about ten minutes, fell asleep. Waked by bell. Went to office, returned and again fell asleep. Between this time and 2½ o’clock, had oppression of breathing, and waked four times with sense of suffocation. On three of these occasions, was wakened by my wife on account of dyspnoea. Twice, the dyspnoea was accompanied by dreams, not in themselves frightful, nor do I know if I breathed hurriedly on waking. Was very drowsy, and, though afraid to sleep, did not feel energy enough to rouse myself sufficiently to get out of bed.

“May 1st.—Do not remember anything out of the ordinary course. Dined on boiled fish. No extra fatigue. Quiet night.

“May 2d.—No extra work. Nothing unusual in the way of food, except that being out in the evening, was hungry, and took a bit of sponge cake with a glass of wine, and at 10.20 went to bed. Slept quite soon.

“The waking was attended with the following experience: I waked with a yell. The room was perfectly dark; but a male figure, darker than the darkness, and dressed in black, was standing by the bedside. Why I screamed, I do not know. I attempted to reach the object with my feet, and, as I kicked, it gradually receded towards the door of the room, vanishing at the same time. By the time the door was reached, it was so faint as to
be hardly perceptible. My wife, wakened by my scream, raised and rubbed me, calling me by name. It seemed to me as if I were awake long before the yell ceased, and before the object disappeared. How long the vision lasted, I have not the slightest idea. Did not think to feel pulse, till I had been out of bed and returned. Found myself exhausted, and breathing rapidly, if after violent exertion. Sensation of pain about fifth rib on left side, and intercostal space below, dull and not relieved by any change of posture. Pain not severe. If I recollect aright, the heart beat very hard. Feeling of exhaustion very great. Great drowsiness. Could not easily persuade myself of the unreality of the apparition, but would not go into next room to see. Determined to overcome fears. Was much surprised to find that it was only 11½, P.M. Pain continued till I fell asleep. Left lamp burning. Forgot, till after I returned to bed, to feel pulse, which was rapid and very feeble, compared to heart's impulse.

"This is the fifth or sixth time that this same figure has appeared. Its face, I cannot describe. It is indistinct. But I fancy the figure standing with folded arms or folded hands by the bedside, and staring in my face with a sorrowful look. Twice, I remember to have hurt my hand with the blow, which I struck at it, reaching towards it as it receded, the hand striking a chair. On one occasion, I fell from the bed, in the attempt to reach it. Only once before have I given such a yell upon waking. It was just a year ago, when recovering from an acute inflammation of the tonsils.

"Whenever I fairly wake after this appearance, I have not the courage to go to sleep again, that night, in the dark; and sometimes have searched the room first. Last night, I would not yield to the inclination.

"When I waked on Sunday, I called 'Henry' twice, and once 'Francis.' I am told that I generally call 'Henry;' and on several occasions followed it with 'Ellen.' In former times, was more subject to the Sunday trouble than of late. Have had it only four or five times in seven months.

"May 5th.—Did not wak again, till 6½ A.M. Felt very sleepy, but in other respects as well as usual. At dinner time, appetite poor. At 5½ P.M., very slight uneasiness, cannot call it pain, in left breast, over same spot as last night. Pulse 72. No dyspnoea."

This record was made, as is stated, immediately after the occurrence, with the intention of comparing it with any repetition of the same. On looking it over, the writer can only say that, from that date, over twenty-five years, it has never been repeated. The peculiar affection of Sunday afternoon has frequently occurred. He questions now, whether the night scene, which made so strange an impression, might not have been the first and only appearance. Perhaps some observer of psychological phenomena may be interested in the recital.

Messrs. Editors,—Dr. Chenery says of his case of delirium tremens, related in the last number of the Journal: "This was not a case caused by leaving off his cups, but the direct effect of their excessive use." Query,—Who ever saw a case that was not so caused?

I certainly never did. I have seen men on the brink of the disease "leave off their cups," and go and have it; they would have had it, with or without their potations.

JAS. O. WHITNEY.

Pawtucket, R. I., Oct. 22, 1873.

Messrs. Editors,—When examining recruits for the U. S. Marine Corps, last autumn, I met with the following anomalies. Seth W. Bullfin had an extra nipple, perfectly formed, with areola, hair follicles, &c., about half the size of a normal one. It was situated three inches directly below the right nipple.

In two other recruits, the nipples were bifurcated.

2 Dextor Row, Charlestown, Oct. 17, 1873.  EDW J. FORSTER, M.D.
M. NELATON is said to have died worth over £280,000, of which his wife brought him £80,000.

There were 514 deaths in New York for the week ending Oct. 18th, of which 23 were by violence.

The beer and ale drinkers expand and grow fat, but they are not much given to profound researches in science.—Med. & Surg. Reporter.

Like the Germans we suppose.

We are sorry to learn that Brown-Séquard's Archives will end with the first volume. The receipts have not been sufficient to meet the heavy expenses. The Archives has contained many valuable papers, and will not be forgotten.

Suppressed Death from Chloroform.—So far as we know, no case of death from chloroform occurring in this city has been recorded; yet we have known of the occurrence of several within a comparatively short time.—Philadelphia Medical Times.

Any one who visits Chilwald, England, can read in the cemetery the following epitaph:

"Here lies me and my three daughters,
Brought here by using Siedlitz waters.
If we had stuck to Epsom salts,
We wouldn't have been in these here vaults."


The following is a statement of the prevalence of, and mortality from, cholera in Russia during the five years, 1867-71:

<table>
<thead>
<tr>
<th>Year</th>
<th>Cases</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>1867</td>
<td>33,382</td>
<td>13,609</td>
</tr>
<tr>
<td>1868</td>
<td>83</td>
<td>35</td>
</tr>
<tr>
<td>1869</td>
<td>911</td>
<td>510</td>
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<tr>
<td>1870</td>
<td>20,140</td>
<td>9,446</td>
</tr>
<tr>
<td>1871</td>
<td>305,929</td>
<td>116,981</td>
</tr>
</tbody>
</table>

Case of Wound of the Abdomen, with Protrusion of the Omentum: Recovery.—C. T., aged 16, was getting over a gate, on the top of which were several iron spikes, when his foot slipped, and he fell on the top of one of them. He did not feel much pain or inconvenience at the time, but shortly afterwards became sick and faint; but on recovering, he walked home, a distance of about thirty yards, and, as he then felt well, he did not mention the accident, nor did he examine himself to see if he were injured. He remained up until about ten o'clock, when, on undressing, he discovered, he says, "that his bowels were coming out." About an hour after this, my partner, Mr. Prideaux, saw him, and found, in the left inguinal region, a wound about an inch in length, through which was protruding a piece of omentum, about the size of an egg, the neck of which was rather tightly constricted. The omentum, not being gangrenous, was speedily replaced by relaxing the abdominal muscles, and employing steady pressure. The wound was then closed by a suture or two, and a compress and bandage applied. He passed a good night, and in the morning seemed in good spirits, having no pain, nor was there any tenderness over the abdomen. He was kept perfectly quiet in bed and on low diet for a fortnight, at the end of which time the wound had perfectly healed, and he was allowed to sit out of bed on a couch. Three days afterwards, he came down stairs, and on the next day I met him in the road, seeming perfectly well.—British Med. Jour.
MEDICAL AND SURGICAL JOURNAL.

The medical testimony in the Stokes trial presented the usual edifying spectacle of the evidence of men of various degrees of skill and respectability put on a perfect equality before a jury, to whom, out of flattery, we will ascribe ordinary intelligence, but who could not be expected to know which of the contradicting experts was to be believed.

VESICO-VAGINAL FISTULA COMPLICATED WITH CALCULUS.—Dr. Alves Branco relates, in the Correio Medico de Lisboa for July 1st, the case of a woman aged 25, who came under his care in the S. José Hospital on account of vesico-vaginal fistula, the result of injury in her first labor four months previously. The opening, which would, when first formed, admit the index and middle fingers, became reduced in diameter in four months to a centimeter (.30). She now complained of severe pain in the hypogastrium; and, a month afterwards, of heat and pain in the bladder, aggravated by the act of micturition. On passing a sound through the fistula, a calculus was detected. Dr. Branco made two attempts, with the interval of a week, to perform lithotripsy; but failed in consequence of the impossibility of keeping the bladder full of water, and the extreme irritability of the organ. He therefore enlarged the fistulous opening on both sides by means of a probe-pointed bistoury, and removed a calculus as large as a nut. A month later, he united the edges of the fistula by silver wire sutures. The patient was discharged cured.—Ibid.

NOTES AND QUERIES.

We have received several answers to the query of X. P. Q. on counter-irritation; among these are mentioned acetic acid and chloroform. A cloth wet with either of these, when laid upon the skin and held there for a few minutes beneath a sheet of paper, answers the purpose well. We do not see that ammonia would be open to the objection stated. The tincture of the grains of paradise has also been recommended.

In answer to the “Inquirer” in your number of Oct. 16th, we are able to say that we have used Plantin’s cathartic oil capsule for the last ten years, the result of which experience is that a single one is equal in effect to the ordinary one-half to one-ounce dose of oil for adults, and also that they are not suitable for children or delicate females, on account of their harshness. We know nothing of their “make up,” but have always thought they contained croton oil, from the activity of so small a dose, and have governed ourselves accordingly. They are fit for adults alone, and their only advantage is their want of taste. We use them, quite often, to move the bowels, when necessary, the first time after delivery, in strong, or moderately strong women.

“Castoria” is found, on examination, to consist principally of senna, with some other cathartic and stomachic medicine in its “make up”; at least so says the Druggists’ Circular, if I am not mistaken.

Doctor.

Mortality in Massachusetts.—Deaths in Fifteen Cities and Towns for the Week ending October 25, 1873.


Prevalent Diseases.—Consumption, 35—pneumonia, 21—cholera infantum, 19—scarlet fever, 16—typhoid fever, 18.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

Deaths in Boston for the week ending Saturday, Nov. 1st, 111. Males, 48; females, 63. Accidental, 3—abscess, 1—apoplexy, 2—asthma, 1—anemia, 1—disease of the bladder, 1—bronchitis, 4—encephalitis of the brain, 1—disease of the brain, 3—cancer, 1—cholera infantum, 3—consumption, 24—convulsions, 3—diphtheria, 4—diarrhea, 5—dropsy, 1—dropsy of the brain, 2—drowned, 1—diptheria, 2—erysipelas, 2—scarlet fever, 7—typhoid fever, 11—disease of the heart, 4—incontinence, 1—disease of the kidneys, 2—disease of the liver, 5—disease of the lungs, 4—marasmus, 3—old age, 2—peritonitis, 1—puerperal disease, 2—enlarged prostate, 1—pyaemia, 1—suicide, 2—typhoid, 1—tumor, 1—whooping cough, 1.

Under 5 years of age, 36—between 5 and 20 years, 11—between 20 and 40 years, 29—between 40 and 60 years, 19—over 60 years, 16. Born in the United States, 70—Ireland, 24—other places, 17.
Original Communications.

SCARLATINA.

By S. W. Baker, M.D., Austin, Texas.

During the spring and summer, I have observed several short articles in the medical journals which deserve notice; especially one in the Medical and Surgical Reporter, written by Dr. William L. Martin, under the caption of Purgatives in Scarlet Fever. The sweeping condemnation of this class of medicines, advocated in that paper, appears to me entirely inconsistent with a sound and rational theory of the disease, whether deduced from a close study of its symptoms, or the pathological condition revealed by post-mortem examination. The disease is inflammatory; in severe cases, eminently so.

In epidemics of scarlatina maligna, and also in malignant sporadic cases, unless the symptoms are promptly and successfully controlled by antiphlogistic and sedative means, the disease hastens rapidly to a fatal termination. In milder cases, whether of sporadic, or of epidemic character, it differs not in kind, but only in degree; and, therefore, whatever medication is resorted to, it should be of the character above indicated. The instances are not rare, that these mild cases, when treated upon the temporizing plan, suddenly change their character, and assume a malignant form; and if they do not terminate fatally at once, are quite sure to be followed by those secondary forms of the disease which are so much dreaded by every physician who has had experience in their treatment. And here I wish to say a word in reference to the vexed question of secondary attacks. Scarlatina simplex, which, on its invasion, does not extend beyond the true dermoid tissue, if it continues unabated four or five days will extend to the pituitary and epithelial membranes lining the nares, fauces and auditory passages, one or all of them. When it does so, it is no longer the simple eruptive fever as it first appeared; but, added to that, is inflammation of those membranes and the subjacent parts, which hastens rapidly to ulceration or the formation of abscess. Now, when these symptoms occur in conjunction with the rash, I do not believe the patient is liable to a secondary attack; but the rash appearing alone does not protect against a subsequent attack of what was formerly called throat distemper; neither does this latter work an immunity against the rash.
"The disease first appeared in New England in 1735. Its first appearance was in Kingston, New Hampshire, from which place it continued to spread, east and west, for three years, and was, undoubtedly, the most malignant and fatal epidemic that ever visited the country. It obtained the name of canker rash."

It prevailed in England and on the Continent at the same time, and was the epidemic described by Dr. Huxham under the head of Malignant Ulcerated Sore Throat.

Its periodic visitations have been continued both in Europe and in this country until now—sometimes assuming a very malignant and fatal character, and at others, a form so mild as scarcely to require medical treatment. Such and so ample have been the opportunities offered for its study, both in regard to its nature and its treatment. And what does medical science teach us to-day? I fear, quite as much error as truth. In one instance we are told that "a small dose of castor-oil was administered in a mild case of the disease, and it soon became unmanageable, and ran on to a fatal termination." While induction fairly applied is a safe process of reasoning, it is hardly safe to draw inferences from one or a few facts, unless those facts are sufficiently numerous and uniform to establish a rule. Some have taken castor-oil and died; while hundreds have taken it and lived. Such reasoning may be summed up in the following formula: "post quan, ergo propter quan." Others, and they are many, tell us that bleeding is not a safe remedy, because it reduces the vis vitæ; all of which is required to resist the wasting power of the disease. This would be a valid argument, if its only effect were to depress the powers of life without exerting a controlling influence over the disease. But if the loss of five or six ounces of blood from a child three or four years old arrests in a large measure the congestion and subsequent inflammation and fever, it is a gain which can be secured in no other way. It places the patient in a condition to be benefited by other remedies.* Others object to the free and liberal use of cold water to the surface, because of its tendency to repel the eruption. This would also be a valid objection, if the following assumptions upon which the objection rests were established facts: 1st. That the eruption constitutes of itself, or contains the causa morbi. 2d. That it is a movable cause and, if removed from the skin, will concentrate its action upon some internal and more vital organ; and, finally, that it can only be safely removed from the system by the process of desquamation. I submit, with all candor, that not one of the above positions can be maintained. Because cold water reduces the dry, sharp heat of the skin, and fades out the deep scarlet hue, and removes the mulberry eruption, with all its painful sensations, it does not follow that a retro-

* General depletion alone is here referred to, and it should be done as soon as possible after the invasion of the disease. Local bleeding by leeches, even for local tumors, has never, in my experience, been productive of anything but evil. The bites are always slow in healing, and their constant tendency is to result in eschars. The same is true of blisters, which, while they do no good, frequently result in serious evil.
cession has at all taken place; neither that a repellant power has in the least degree been exercised by the water. With as much propriety might it be said that because cold water removes the erythema and pain from a slight burn, the injury had thereby been repelled to some internal organ. All these are steps accomplished in the direction of a cure.

And so of cathartics; it is said they weaken the patient, and tend to cause a retrocession of the eruption, and their direct effect is to irritate, inflame and ulcerate the bowels. On the contrary, a judicious use of these medicines is the proper and successful method of counteracting these evils. I do not believe that in one case in twenty the mucous membrane of the bowels is one of the organs or tissues primarily implicated in an attack of scarlatina.* "The raw, red appearance of the tongue," which has been cited as symptomatic of an irritated and inflamed condition of the bowels, is not so, but is the result of the local action of the disease upon that organ and the adjacent parts. It is in the latter stage of the disease, in the low, typhoid stage, if at all—when the mouth is filled with sores, when the eschars have sloughed and left foul and gangrenous ulcers that yield a fetid, ichorous and bloody discharge, that the bowels become tympanitic, and afford unmistakable evidence that they are involved in the disease. In cases extreme as this, no practice within my knowledge affords as reasonable hope for recovery as a mild, mercurial cathartic (calomel). The favorable action of this is promoted by enveloping the body from the hips to the arm-pits with several folds of domestic wetted with cold water, applied after the manner of the hydropaths. It is well to repeat this process so long as the abnormal heat continues.

A detailed description of the different forms of disease, through their different stages, is not embraced in my present design; but merely to show my views of its character or type, and, by inference, the mode of practice, and the remedies required for its cure. Its classification, by nosologists, with inflammatory diseases is, so far as I know, generally received by the profession; but no uniform mode of practice based upon this classification has been the result. This may be in part owing to an imaginary mystery which is thrown round the subject; viz.: that the disease is specific, the result of a specific cause, and, therefore, demands a treatment by specifics. This is undeniably a fallacy, and ought to be discarded. The disease is, indeed, specific; but the inference is the fallacy.

It is true, belladonna at one time obtained some reputation in this direction, both as a prophylactic and a remedy; but experience has

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* Mr. Armstrong says, "You almost invariably find proofs of inflammation of the fosses, extending down the larynx, trachea and bronchi. In nine cases out of ten, the air-passages are inflamed." And the accuracy of this statement is borne out by Mr. Hamilton, in his observations on the epidemic in Edinburgh, in 1832. See Edinburgh Medical and Surgical Journal, vol. xxix. "The comparative frequency of inflammation of the mucous membrane of the bowels, dwelt on by Dr. Armstrong, is not admitted to the same extent by other observers."
failed to justify its claims. There are but two methods of treatment worthy of consideration; the one may be called active, the other passive. In the former, a vigorous antiphlogistic and sedative treatment is instituted to arrest the disease; or, failing to do this, to so modify and control the symptoms that it may pass with safety to a favorable termination. In the latter, the desideratum is to obtain and retain upon the surface a full eruption, until the period arrives for desquamation. The position is taken that the disease "must run its course," and, therefore, requires a sustaining treatment. Upon this subject there is room for a difference of opinion; and it can hardly be conceded that the disease must of necessity pass through all its stages; but if it were so, that treatment will most preserve the vital forces which most promptly and effectually controls the morbid actions. It is not the remedies, but the disease that prostrates. My motive in writing this paper was not so much to discuss the philosophy of the disease, as to advocate an active treatment for its cure; and the only argument now remaining must be drawn from a careful collation of facts. In order to contribute something to this end, I will give the result of my own observation and experience. In the year 1832, in the months of May, June, July and August, I treated 247 cases, most of which were of a very malignant type. My field of practice at that time embraced a part of Westbrook, Gorham and Windham, in the County of Cumberland, Me. I shall give the history of a few of those cases, premising it with a general plan of the treatment pursued.

In all cases where there was active inflammatory action, whether the eruption had or had not made its appearance, bleeding was the first prescription. The depletion was graduated by the effect it produced on the patient, and continued until the pulse became soft; and, if the eruption was out and quite florid, until it began sensibly to fade out. A moderately active cathartic, of jalap and calomel, or compound jalap powder, was next administered. I prefer the former. In all severe cases, the swellings about the throat and the anginose affection require early and particular attention. Folds of linen or domestic saturated with cold water were kept constantly applied to the neck and throat, so as effectually to keep down the temperature, and retard the swelling of these parts. In many cases, the water was slightly acidulated with vinegar; but this, while its effect upon the swellings was good, seemed rather to irritate than soothe the eruption.

And here I would observe, by way of parenthesis, that, since reading Dr. Adinell Hewson's book upon the use of clayey loam as a topical application in surgery, I believe it would better fulfil the indication in these cases than any other application. Wetted down with cold water, it would longer retain its moisture and temperature, the two qualities particularly requisite in these applications. I imagine, too, that the anodyne and sedative properties of the humus
connected with these earths, would render them much more efficient
agents than the water, however it might be applied.

In variola, where it is desirable to protect the skin, especially
upon the head and face, from the disfiguring effects of pustular sup-
puration, might not the same means be used with happy effect?
Perhaps nothing could more effectually prevent the congestion which
is the first step in pustular formation than such an application. It
would protect from the irritating effects of air and light, and secure
a uniform temperature at any degree that might be desired.

But to return from this digression. Cloths, dipped in cold water and
wrung sufficiently to prevent much drip, were kept constantly applied to
the surface of the body and limbs, and changed so often as to secure a
uniformly cool temperature. Under this treatment, quiet and rest
were substituted for the febrile restlessness and burning of the skin.
Constant care and watching were necessary to enforce this part of
the treatment; otherwise, if neglected, the fever and eruption would
return with increased intensity.

It only remains to notice the treatment pursued in the ulcerated
throat which attended almost every case. A mixture of cayenne
pepper, salt and vinegar, in water, was applied to every part of the
throat by means of a swab. It was passed through the isthmus of
the fauces back of the swollen and ulcerated tonsils so as to cause
the patient to gag, by which action whatever of viscid mucus or
sanious pus lodged there was thrown forward into the mouth and
was wiped out. The importance of this part of the treatment is so
apparent that it will not be neglected. Of the above mixture, the
patient swallowed, every few hours, from a teaspoonful to a table-
spoonful, according to the age, as a febrifuge and cordial.

The above statement is sufficiently full to explain the general prin-
ciples, and all necessary details of my practice in 1832. With very few
exceptions, no other medication was required. The three following
cases, for reasons which will be given, did not receive the full bene-
fit of the treatment.

Case 1st, May 8th.—William Brackett, 9 years old, seized with
vomiting at 2 o'clock, morning. Vomiting continued half an hour, and
was succeeded by pain in the head and back; great restlessness;
pain in the throat, and intense fever and burning of the skin. At 8
o'clock, when I first saw him, a deep scarlet eruption had estab-
lished itself over the entire surface, to the ends of the fingers, and
so great was the congestion or swelling of the skin that it was diffi-
cult to entirely close the hand. The dorsum of the tongue, especially
toward its base, was covered with a heavy, cream-colored coat; while
the tip and edge were red and irritable. The tonsils, uvula and all
the soft parts of the throat were greatly swollen, and of a deep
mahogany color, showing distinct ash-colored spots, which gradually
extended till they commenced to slough. The swelling of the paro-
tids and all the glands at the angle of the jaws was equally sudden.
This was the case that, in my region of practice, ushered in the epidemic, and it was the first that came under my observation. I felt that I was exploring an unknown region, full of danger and uncertainty, and therefore must proceed with great caution. I feared to bleed, but in all other respects he was treated vigorously, according to the plan above indicated. His recovery was slow. The ulcers in the throat did not heal readily, and the swelling of the parotids and the glands about the throat remained for several weeks, but finally disappeared without suppuration. After the eruption had subsided and desquamation had, in part, taken place, the skin remained hot and dry, and the pulse hard and frequent. An ichorous discharge from the pituitary membrane excoriated the nostrils and lip. The bowels were constipated, and the secretion from the kidneys became small and of a dark brown color. Mercurial cathartics, with powders of nitrate of potassa, ipecac and camphor, and cremori tartari whey, constituted his medication. His recovery was complete.

The error of treatment in this case was the neglect of bleeding. Had this been performed at the onset, it would, with the treatment pursued, not merely have controlled, but subdued the inflammatory diathesis, and all that grave train of symptoms known as the sequæ of the disease would have been prevented.

From the date of this case, the disease spread rapidly, and a large majority of the cases were of equal severity with this. Bleeding was now considered a matter of prime necessity in the treatment; and in no case where the attack was sudden and violent was it omitted; and in no case where it was performed was there reason to regret it. The recoveries were considered rapid, occupying from ten to seventeen days; and they were perfect, as no trace of any indisposition referable to the disease remained in the system.

The next case I shall present was fatal; and to it I shall append some remarks.

June 6th.—Joseph Emery, 4½ years old, well grown, healthy and vigorous, was seized with a fit of vomiting at 5 o'clock, morning. His symptoms were so nearly like those in the case above that it is unnecessary to detail them. The vomiting soon brought out the rash, which was general, and of the same malignant character as in Brackett's case. He was bled, had a cathartic, and cold water was applied to the surface of the body and extremities until the heat was reduced to the natural temperature, and the rash, with the puffiness of the skin, was quite removed. Cold cloths were directed to be kept constantly applied to the swellings about the neck and throat, and also to the orifice of the bleeding, which, by the way, was a necessary precaution in all cases where there was any abrasion or destruction of continuity of the skin; otherwise, a dry gangrenous action would set in, and dangerous eschars would be the result. I left him at 9 o'clock, in a very favorable condition, directing the application of the water sufficiently to keep down all increase of
heat and redness of the skin. The infusion of pepper to be given every four hours.

Eight o'clock, evening.—All directions for treatment during the day had been entirely neglected, and every symptom had returned with increased intensity. For an hour and a half, I gave my undivided attention and effort to redeem the advantage which had been lost during the day. His condition was again entirely satisfactory. The necessity of good nursing had been so thoroughly vindicated that I had no doubt of an entire observance of all my directions in the future.

.7th, 9 o'clock, morning.—The report of last evening is equally applicable to this morning. No effort had been made during the night to control the disease. The eschars in the throat were sloughing, and every effort to speak or swallow was intensely painful. The membrane of the mouth was parched and dry, and the teeth covered thick with sordes. It is unnecessary to continue the daily reports, as they would only show the uninterrupted progress of the disease to a fatal termination on the 12th. It is, however, necessary, in defence of the treatment, to state the following facts. There were two other cases, older brothers of this boy, in progress in the same house, at the time of his attack. Their ages were, respectively, thirteen and eleven. Their disease was of an equally severe and malignant type. The prescriptions in all these cases, allowing for the difference in age, were precisely similar. The difference in the result was entirely attributable to the fact that these boys were nursed by a paternal aunt, who was a sensible woman, and every direction was implicitly obeyed; while the youngest was nursed by his mother, who was a timid yet very obstinate woman, and no persuasion could induce her to do a thing in opposition to the boy’s will. The treatment, therefore, in his case was rendered entirely abortive; while in the others it resulted in a rapid and perfect recovery.

I will now give a case of scarlatina complicated with croup.

June 18th.—Samuel Thomas, a healthy, vigorous boy, two years and three months old. Has been slightly indisposed for the last twenty-four hours; is fretful, has slight fever; pulse 98, and rather hard; skin dry; tongue not coated, but of a mottled, brownish appearance at the base; no perceptible swelling, but increased redness of the tonsils and uvula. Scarlatina was in the house, or his case would scarcely have excited attention. He had an emulsion of castor-oil, spts. terebinth. and spts. nit., after the action of which his symptoms were improved. A faint scarlet eruption appeared upon the neck, breast and body. A cooling diaphoretic mixture was prescribed, and continued to the fifth day of the disease, when desquamation commenced to take place. The skin still continued dry and rather hot, but the redness and eruption had disappeared. On the night of the fifth, a hoarse cough came on, and in the morning his case was
unmistakably croup, or cyananche trachealis. He died the following night. Up to his attack of croup, it will be seen that he was treated entirely upon the expectant plan. It was a sad failure. Had he been bled at first and taken an active cathartic of calomel, I have no doubt the eruption would have come out freely and fully, and the result would have been different. The eruption once fully established on the skin and in the throat, and all the internal organs are relieved. It can be there successfully treated without the risk of retrocession.

The following case, though occurring four years subsequent to the epidemic, is of interest, as showing a rare form of attack. I find in my memoranda it is set down as scarlatina complicated with congestion of the brain. While I shall incidentally notice another case occurring in the same family and at the same time, it is the boy's case particularly to which I would direct attention.

1836, May 14th.—Was summoned to visit two children, the only children of E. Varney, a girl and a boy. Their ages were nine and seven years. The girl was the elder. The afternoon was pleasant, but the ground was damp and cold. They were at play in a grove, a few rods from the house. The boy suddenly fell down in a convulsion. The cries of the girl speedily brought assistance from the house; but before the boy was removed, the girl was seized with a fit of vomiting. I saw them at 5.30 o'clock, about two hours after the attack. There had been no sign of consciousness or sensibility exhibited by the boy from the time of his attack. His face was pallid, surface cold, and the pulse at the wrist only occasionally perceptible by a feeble vibration. In short, his appearance was entirely cadaverous. His friends had been actively engaged, using all the means within their power to restore warmth, sensibility and consciousness, but to no good purpose. The vomiting, in the case of the girl, had been immediately followed by a copious eruption, which unmistakably indicated scarlatina; and upon examining the throat, this opinion was abundantly confirmed. In the epidemic of 1832, many cases were ushered in with convulsions. I therefore believed the boy's attack to be of that character, and determined, if possible, to bleed. The temporal artery was cut, but only a few drops of blood seemed to exude from the skin. The head was depressed, and friction with hot flannels continued. After a few minutes, the artery of the other temple was cut. The blood dripped from this slowly, but evidently coming from the vessel. The flow increased, and now it dripped from both temples. After about five minutes, it was thrown out by a perceptible jet, and when about eight ounces had been taken, consciousness was somewhat restored. He knew his mother, and called her by name. He was now able to swallow, and occasionally a teaspoonful of the pepper mixture was given him as a stimulant and cordial. The friction was continued until a comfortable warmth was restored to the surface. A cathar-
tic of calomel was directed to be given at bed-time, or sooner if the
head should become hot and painful; and, in that case, cloths to be
applied wet with cold water.

15th, 9 o'clock, morning. The boy's condition is much improved.
The eruption is out upon the neck and breast full, and more faintly
upon the body. Pain and heat of the head, redness and swelling of
the tonsils, with difficult deglutition. The eruption continued to ex-
tend for three days. All these symptoms gradually subsided, and
on the seventh day desquamation took place. His recovery was
complete in fifteen days. In the girl's case, there was no complica-
tion to distinguish it from an ordinary scarlatina anginosa. The
swelling, eschars and sloughing retarded her recovery beyond that
of the boys.

I have remarked above that during the epidemic of 1832 I treated
247 cases. Of these, 5 were fatal, or a fraction ($\frac{5}{247}$) over 2 per
cent. Since that time, in several milder epidemics, and in sporadic
cases, I have found the same treatment equally successful.

A striking peculiarity will be observed in the two first and last
cases I have given; that is the suddenness of the attack. In very
many of the cases, and those were of the most malignant character,
the premonitory symptoms, such as chills, alternate flashes of heat
and cold, headache, pains in the back and limbs were entirely
wanting, or unobserved. No complaint was made until the patient
was suddenly struck down and overwhelmed with the disease.
Cases occurred where children in a schoolhouse, standing in their
classes for recitation, were suddenly seized with convulsions, or
syncope, or vomiting. Two such cases I witnessed before their
removal.

Austin, Sept. 16, 1873.

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The Air-balloon in Childbirth.—The following are the conclusions
of M. Vinoy (France Médicale, Aug. 9, 1873) with regard to the em-
ployment of the air-balloon in accouchements:—

1st. The balloon, introduced into the vagina, brings on uterine con-
tractions.

2d. It will be found, either when employed alone or in conjunction
with other procedures, to be a useful application in producing abor-
tion and premature delivery.

3d. In cases of hæmorrhage of moderate severity, such as charac-
terizes placenta pravia, the balloon serves as a tampon, and at the
same time tends to bring on labor.

4th. It is especially applicable in those cases in which labor is de-
layed by a want of activity in the uterus. It restores the pains when
they have ceased, and augments their intensity when they already ex-
ist, both during the stage of dilatation of the os, and during the expul-
sion of the fetus.

5th. The application of the balloon is perfectly simple, and entirely
exempt from any danger of accident.
Progress in Medicine.

REPORT ON OPHTHALMOLOGY.

By O. F. Wadsworth, M.D. Harv.

[Concluded from p. 456.]

Pathology and Treatment.


1. Leber, in the paper above referred to, describes, in great detail, a case of amyloid degeneration of the conjunctiva. The patient was a young man, otherwise healthy; the disease had existed less than five years; within two years from the commencement of the disease, and again a year later, portions of diseased tissue had been removed. The degeneration involved the greater part of the conjunctiva in both eyes, the conjunctiva of the sclera and especially of the fold being most affected. The thickening was caused partly by the presence of coarse, brawny nodules, partly by a more diffuse, brawny infiltration, both of yellowish, semitransparent appearance, and resembling somewhat the growth in diffuse trachoma. A portion of the strongly folded conjunctiva was removed with scissors, and much of the infiltrated masses beneath scooped out with Daviel's spoon. The degenerated parts consisted of numerous amyloid bodies of various size and shape in a clear, fluid, basis substance. In the scleral conjunctiva, amyloid bodies were imbedded in the adventitia of the smaller vessels, but the wall proper of the vessels was generally free. To some of the finer nerve branches, amyloid bodies were also attached. In other parts of the conjunctiva, were what appeared to be bundles of swollen, altered connective tissue, giving the amyloid reaction, and here the walls of the bloodvessels were thickened, amyloid. The amyloid granules and the degenerated connective-tissue bundles were enclosed in endothelial-like sheaths. Leber discusses this case in connection with three similar cases which have been reported in the last two or three years, and concludes that—

I. Amyloid degeneration appears in the conjunctiva of the lids, and also in the tarsus, as a purely local disease.

II. Clinically, it may be distinguished from trachoma.

III. The process consists in a development of amyloid bodies, or an amyloid connective tissue, both of which are enclosed by protoplasmic sheaths containing nuclei. From the latter, the growth of the tissue appears to issue.

IV. The tissue of the amyloid growth of the conjunctiva has, therefore, in structure, and perhaps also in development, many analogies with normal connective tissue.

2. Wolfe narrates two cases in which he successfully transplanted a flap of conjunctiva from the rabbit to man. The first was that of a workman, in whose left eye the conjunctiva of the whole lower lid and of the corresponding portion of the globe, and a portion of the cornea had been destroyed by a burn. The result was the complete attachment of the lower lid to the globe, the edge of the lid reaching to the upper border of the pupil. In this state of things, there was not opportunity for an autoplastick operation, and it occurred to the author to try a conjunctival flap from the rabbit. He chose for the purpose the inner portion of the conjunctiva which covers the membrane nictitans, on account of its greater vascularity. Patient and rabbit were both chloroformed, the lid was carefully dissected free, the conjunctiva was removed from the rabbit's eye, and fixed by sutures so as to cover the raw surface on the man's lid. The only dressing was dry lint and a bandage. The next day, there was not more inflammation than was to be expected from the extent of the dissection; the transplanted flap had a greyish aspect. Warm fomentations were ordered. On the following day, there was complaint of much pain
and lachrymation. Any touch of the lid was painful. The new conjunctiva had, however, except in a few isolated spots, lost the greyish tint of the previous day, and was red and shining; at some spots offering the appearance of exuberant granulations. From this time, the swelling was checked and gradually diminished. On the fourth day after operation, the new conjunctiva was everywhere adherent, and the sutures were removed. At the end of eight days, the man returned home, the lid free everywhere, the movements of the eye good, the transplanted conjunctiva having preserved its vitality everywhere, except in one little grey spot the size of a pin's head. A few weeks later, an iridectomy behind the upper, clear part of the cornea restored vision. The second case was similar to the first, but the symblepharon was not quite so extensive. The operation was done in the same manner, only, instead of trimming off the superfluous portion of the transplanted conjunctiva after the sutures had been applied, it was left hanging. The different behavior of this loose bit of conjunctiva and that which was held in place by sutures could be easily followed from day to day. The free portion remained grey and loose eleven days after the operation, while the attached portion had resumed almost wholly its natural brilliancy. In this case, there was no sign of irritation of the globe following the operation, and the movements of the eye became free.

3. Schneller recommends a new operation for cicatricial entropion and trichiasis of the lower lid, which he has found to render excellent service. Two incisions are made through the whole thickness of the skin, parallel to the lid edge, and two to four mm. apart, the upper incision one and one-half to two mm. below the edge of the lid. These horizontal cuts are united at their ends by oblique incisions. The piece of skin thus included is left in place, care being taken to avoid injuring it, during the operation, in any way. The surrounding skin is loosened at the edges, just enough to make it a little movable (one-half mm.), and the upper and lower edges of the wound are drawn together over the included bit of skin by sutures. A pad of lint, placed over the eye, is retained by a bandage, and changed at the end of twenty-four hours. In four days, the sutures are removed, but replaced by strips of isinglass plaster, which, with the bandage, remain a day or two longer. Schneller found, some time after the operation, a firm cicatrix, somewhat thicker than the surrounding skin, which was movable over the underlying muscle. It would be interesting to know what becomes of the portion of skin thus buried. A similar operation, on the upper arm of a man, undertaken in the hope of later investigation of this point, did not succeed.

4. Martin lays down very exact rules for the treatment of various stages of entropion by different forms of skin-grafts, the size and time of application of the grafts varying according to the conditions existing. It does not clearly appear, from the paper, that these rules are based on sufficient practical experience.

5. Knapp has modified Snellen's entropium forceps by enlarging the half-ring, so that when the forceps are closed it surrounds instead of lying upon the plate, and thus gives more room for operation. The direction of the handle is also changed, so that the same instrument may be conveniently used for either eye.

6. Pfungen, from investigation of keratitis artificially produced,
takes the side of those who contend that the corneal corpuscles proliferate in inflammations of the cornea. In traumatic keratitis, he found, occasionally, corneal corpuscles, nearly divided into two parts by a fissure, and containing a nucleus in either part; and, after treating the corneas both with gold and silver, some corpuscles, generally such as contained many nuclei, were seen to be crossed by lines of silver precipitate, which pointed to a division of the cells and the presence of cement between them. All intermediate forms between corpuscles and wandering cells were present, and, in parts in which the increase of cells was most active, no unchanged corpuscles could be discovered.

Many experiments were made to determine the influence of the nervous system on the production of keratitis. Of six cases of simple section of the trigeminal without injury of the Gasserian ganglion, only one showed inflammation of the cornea. In this, there was a small white point of opacity near the centre, consisting of small, closely aggregated cell elements, the rest of the cornea being comparatively clear. When Gasser's ganglion was irritated, similar opacities were frequently found. These opacities lay in the anterior layers of the cornea, while in traumatic keratitis the posterior layers were chiefly affected. After removal of the eyelid in frogs, the cornea remained healthy during the four to ten days they were under observation; the same was the case when the trigeminal was cut, but injury of Gasser's ganglion caused, generally, great inflammation. Neither removal of the medulla oblongata, nor section of all the cerebral and spinal nerves on one side, nor extirpation of Gasser's ganglion in frogs, prevented inflammation from following a corneal wound. Neither the influence of the central nervous system nor that of the Gasserian ganglion would, therefore, seem absolutely necessary for the production of a traumatic keratitis.

7. Reich sought to determine, experimentally, the advisability of operative interference in cases of permanent opacities of the anterior layers of the cornea. To this end, he removed portions of the anterior layers of the cornea in rabbits. The amount of irritation following was generally not great; the newly formed tissue, which only partially filled the excavation made in the cornea, showed, by oblique illumination, very little lack of clearness at the end of several months, but the ophthalmoscope showed irregular astigmatism. The cause of the astigmatism appeared to be due, in part, to the imperfect transparency of the new tissue, in part to the unevenness of the anterior surface. He thinks the results of his experiments should not contraindicate attempts to remove opacities of the cornea in certain cases.

8. Hutchinson describes a peculiar form of iritis which occurs at an early age in the children of gouty parents, and differs from other forms of arthritic iritis in being insidious and persistent rather than paroxysmal. Posterior synechiae form without any attack of acute inflammation, the pupil is gradually occluded, and there is effusion behind the iris. In the later stages, opacities in the vitreous usually form. One eye is generally attacked first, and its vision is much diminished before the other is affected; ultimately, he believes that both eyes are almost always implicated. Only in one case has he observed entire loss of sight from the disease. The eye usually feels hot and uncomfortable at the time that adhesions are forming, and there may be slight
congestion of the conjunctiva, but the attack is, for the most part, painless.

9. Feuer describes a serous cyst of the iris, apparently following a wound of the cornea, which he convinced himself was formed in the tissue of the iris itself, since the iris-tissue could be traced under the microscope directly into both walls of the cyst; the outer surface of the front wall showed no epithelium, and the outer surface of the posterior wall was covered by the uvea. The interior of the cyst was lined with epithelium. The epithelial lining he believes, with Rothmund (Journal, Nov. 14, 1872), was due to proliferation of a fragment of corneal epithelium carried into the iris-tissue when the wound occurred. He admits that serous cysts may arise from folding and adhesion of the iris, so as to form a closed sack, but cannot admit Wecker's theory that all serous iris cysts are formed in this way.

10. Von Wecker re-asserts his theory, relates several cases of blows on the eye, in which, without wound of the cornea, the lens was dislocated and the papillary edge of the iris folded backward, and, later, the patients appeared with extensive cystic degeneration of the iris. He denies that the appearances seen by Feuer prove that there was not in his case a folding and adhesion of the iris, and claims that they would have been equally present if the cyst were formed by such folding.

11. Perls has examined a case of general miliary tuberculosis in an infant, in which miliary tubercles were found, both in iris and retina. In the former position, they have before only once been observed; in the latter, never. For, although Bouchnot asserted (Gaz. des. Hôp., 1869, 1 and 2) that he had observed tubercles in the retina, both with the ophthalmoscope and at the autopsy, the descriptions he gives of the ophthalmoscopic and histological appearances are decidedly those of fatty degeneration, not of tubercle. The father of the infant had had syphilis, but was free from its symptoms since some time previous to his marriage; neither the child nor the mother had shown any signs of infection. At six months, a yellowish-white nodule appeared on the iris of the left eye, with slight inflammatory symptoms. The cornea soon became infiltrated, opaque, there was exudation in the iris and anterior chamber, and the cornea and sclera over and near the nodule were bulged forward. The affection was regarded as a gummy tumor, and treated as such, but infiltration of the upper part of one lung appeared, and with fever, and, finally, convulsions, the child died. Tubercles, recent and older, were found in the brain and most of the thoracic and abdominal viscera. The tumor of the iris was found to have pressed forward against the cornea, and backward it involved the ciliary processes. In great part, it appeared to be an inflammatory infiltration, but it contained, also, a number of miliary tubercles, characterized by the histological arrangement described by Wagner and Schüppel, namely, one or more giant-cells, moderately large cells, with two or three nuclei, and lymphoid cells, lying in a sort of meshwork formed by paler cells of very various form, with slender processes and surrounded by lymphoid cells. This arrangement was more plainly seen in the nodules of the ciliary processes, which appeared more recent than those in the iris. In the retina, the tubercles were situated in the anterior layers; the internal limitans was pressed forward by them, the finely granular
layer backward, and the radiating fibres (Müller's) pushed apart and crowded together at the sides. In the choroid, where tubercles have been so often found, none were present. The affection of the cornea appeared to be simply inflammatory; and the general infiltration of the iris, Perls regards as undoubtedly secondary to the tuberculosis.

12. Von Jaeger, who has been hitherto an advocate of the flap operation for cataract, now describes a new operation, which has given good results in the few cases he has tried it. The knife he uses is somewhat like Beer's, but is curved on the width of the blade, the curve being that of a cylinder whose axis is parallel to the back of the blade. The section does not vary much in position from Graefe's section, unless it is desired to avoid iridectomy, then it is made lower. He speaks strongly, however, in favor of iridectomy, whatever mode be employed, as offering better chances of success, though not equaling the best possible result without iridectomy. The advantages he claims for the operation are:—1. Formation of, as nearly as possible, a linear wound of size sufficient for the exit of the largest cataract. 2. Possibility of fixing the globe during the whole section without the use of forceps. 3. More or less complete retention of the aqueous till the completion of section. 4. The comparatively small increase of intra-ocular pressure during the section. 5. The relatively easy exit of the lens. 6. The increased comfort of after-treatment for the patient.

13. Von Hasner has modified the flap operation for cataract. He makes the section downward, as before, but in the sclero-corneal border, and forms at the same time as large a conjunctival flap as possible; does not divide the conjunctival flap entirely, however, but leaves a bridge, two or three lines wide, situated downward and inward. The lens is pressed out at the outer side of the bridge of conjunctiva. Finally, he divides the posterior capsule, as he has formerly done. The advantages of this operation over the old are said to be, that the conjunctival bridge prevents gaping of the wound and hastens its union, at the same time lessening the dangers of prolapse of the iris and exit of vitreous; over Graefe's operation, that the exit of the lens is easier and iridectomy is avoided.

14. Mauthner's paper is a very interesting and, on some points, instructive one. Hitherto, no satisfactory explanation of the temporary blindness which has in some cases preceded permanent blindness from embolism of the central artery of the retina has been offered. Mauthner had the good fortune to observe a case which appears to offer a solution of the phenomenon. The patient had observed, on waking, one hour and a half before, a failure of sight in the left eye, which varied in amount. During a rapid superficial examination, vision sank to quantitative perception of light, and immediate ophthalmoscopic examination showed nothing but such an excessive thinning of the retinal arteries that with the upright image they could be only followed as thin red streaks a short distance from the papilla. Iridectomy was proposed, with the hope that, by producing a sudden decrease of intra-ocular pressure, the supposed embolus might be driven forward sufficiently to leave some branches of the central artery free; but, by the time the instruments and assistants were brought, the vision had again become perfect and the appearance of the retinal arteries was normal. The explanation offered is, that one end of an embolus, borne
along in the ophthalmic artery, had entered the orifice of the arteria centralis and plugged it more or less completely, but, being too large to enter the artery entirely, was again torn out by the pressure of the blood current in the ophthalmic artery, on its projecting portion, and carried on into some other of the numerous branches of the ophthalmic. There, on account of the numerous anastomoses which exist, it need have given no sign of its presence. The correctness of the diagnosis of embolism is supported by the fact of existing heart disease and the occurrence, some months later, of symptoms of embolism of a cerebral artery.

The recent investigations of Cohnheim on embolism, and the renewed investigations of Leber on the connection between the ciliary and retinal vessels, are considered to throw no light on the subject of embolism of the arteria centralis retinae. Indeed, the statement of the latter, that the connection between these vessels is only through capillaries, would only serve to render the symptoms which sometimes follow embolism of the arteria centralis more inexplicable. From the study of the symptoms and ophthalmoscopic appearances in such cases reported by Knapp, Fano, Hock, and in two which he observed himself, he believes that anastomoses of considerable size between ciliary and retinal arteries do occasionally exist before, or are formed subsequently to, the embolism.

15. Knapp reports three new observations of embolism of branches of the retinal artery. He thinks such cases are more common than has been supposed, and states that when a primary branch of the retinal artery is obstructed, there occurs superior or inferior hemiopia; when a secondary branch alone, a sector-like defect in the upper or lower half of the visual field is observed.

16. Jackson gives a résumé of some of the facts and opinions he has published within a year or two on matters of common interest to physicians and ophthalmologists. Under the head of epileptiform amaurosis, he treats of a class of cases in which there occurs a temporary affection of sight; either a failure of vision, or an "over-function"—development of colors, sparks, &c. Such cases are analogous to cases in which there are temporary subjective sensations of smell, and the affinities of both these temporary sensations are to epilepsy. In the cases he has seen, there have usually been other nervous symptoms, convulsions or loss of consciousness. The temporary affection of sight or smell may be called an aura; it is "part of a fit," the initial stage, and sometimes—if the fit is abortive—it will be the only symptom. Neither of the varieties of affection of vision is a localizing symptom, but if either be accompanied by an epileptiform seizure beginning deliberately in the hand, foot or cheek, it may be concluded that there is disease of the convolutions of the cerebral hemisphere opposite the side of the body on which the convolution begins and near the corpus striatum. The fact that optic neuritis occasionally develops, and may leave permanent defective sight, shows that the association of temporary defect of vision with convulsions beginning unilaterally is not a chance one.

The combination of optic neuritis with convulsion beginning on one side, is to be regarded as of great importance, both as pointing to the locality and general nature of the disease. The neuritis alone does not aid at all in localization, but when it is combined with convulsion beginning
distinctly in one hand or one side of the face, the disease is of, or involves, convolutions supplied by the middle cerebral artery, that is, in the neighborhood of the corpus striatum. The tie between the two symptoms, he thinks, is to be found in the distribution of the cerebral arteries. In the same way, the connection between subjective sensations of smell and temporary loss of consciousness is that the anterior cerebral artery supplies the olfactory bulb and a vast tract of convolutions, as well as a part of the corpus callosum. "Speaking very generally, symptoms are to be arranged, not only according to the functional divisions of the nervous system, but sometimes according to its nutritive, at least its arterial, regions." Optic neuritis does, however, point to the general nature of the disease. "If there be no optic neuritis, the fit does not, in all probability, depend on tumor nor on any sort of adventitious product. But if there be also double optic neuritis, we may conclude with confidence that the disease in the region of the middle cerebral artery is tumor."

The fact that acute neuritis may exist while the patient is able to read the smallest type, and is unconscious of any disturbance of sight, is rightly insisted upon, and hence the necessity of routine examination with the ophthalmoscope. Cases in illustration are quoted, in which the discovery of optic neuritis settled the diagnosis, the other symptoms alone being entirely insufficient. The importance of attention to very slight changes about the discs is pointed out, but it is acknowledged that, at present, some of these changes cannot always be distinguished from physiological peculiarities. Whether a tumor be situated in the cerebrum or cerebellum, he believes not to have the slightest influence on the ophthalmoscopic appearances of the neuritis. Unicocular neuritis very rarely occurs, even when but one cerebral hemisphere is diseased. With regard to deafness of nervous origin, Jackson thinks it never results from tumor of the cerebrum or cerebellum, but in this statement he excludes cases in which the tumor is so placed as to press on the auditory nerve itself; there, of course, deafness results. It is proper to say here, that when the word tumor is used by the author, it appears to be used not in any specific sense, but intended to include any adventitious product.

17. Michel reports a case of great pathological interest. The patient, a boy of 15, had been for many years entirely blind. No accurate early history could be obtained, but he was said never to have had acute disease. The skull was deformed, the intellect below par. For some years before death, there was seen, in both eyes, regressive choked disc. Death was from acute affection of the lungs. The optic foramina were found contracted, the optic nerves atrophied, and the outer sheaths distended by a mass of proliferated endothelial cells, which filled the subvaginal spaces from the eyes to the foramina. In the mass were numerous onion-like balls, resembling those in cancriod of the skin, and these often contained concretions in the centre. The endothelium of the surface of the inner sheath did not appear to take part in the proliferation. The outer sheath was thickened by a similar proliferation of endothelium in its fissures.

18. Mitchell and Thomson contribute several interesting cases in which the ophthalmoscope gave valuable assistance in the diagnosis of intra-cranial disease.

19. Leber, on examination of a case of atrophy of the optic nerve:
and tracts, in which numerous corpora amylacea were present, found that each of these was enclosed in an apparently homogeneous capsule, on which no nucleus could be seen. On one side, the capsule was prolonged into a long and fine, smooth fibre, resembling exactly the greater portion of the atrophied nerve fibres. He arrives at the conclusion that the corpora amylacea arise from the nerve fibres, though his observations did not furnish the direct proof necessary to absolutely settle the question.

20. The tumor described by Chisholm and Knapp is of much interest, since it is the only case of intra-ocular enchondroma ever reported. It had reached a diameter of two and a half inches, and was still enclosed by the sclera, from which it seems probably to have started. Nodes of both hyaline and fibrous cartilage were contained in it, and Knapp was able to trace their development from the connective tissue which surrounded and separated them.

Sir William Fergusson.—The Saturday Review takes the late President of the British Medical Association severely to task, for rank heresy in matters pertaining to public health. In his recent address before the association, at its annual meeting, Sir William uttered some rather startling propositions, at variance with the generally accepted dogmas concerning the relation of disease to sewage. It is scarcely to be believed that this great English authority’s conviction in the matter of sewage-propagation of typhoid is fairly and fully represented by the Saturday Review, but the criticism is very caustic and readable. The opening sentences are as follows:—

“There is an old saying that every man in the course of his life must eat a peck of dirt, and Sir W. Fergusson, the eminent surgeon, now gives us the comforting assurance that we must wash it down with a gallon or two of dirty water. It is impossible, he says, to get absolutely pure water, and therefore it is idle to take the trouble to procure approximately pure water. As we must drink dirty water, the best thing we can do is to shut our eyes and hold our noses, and gulp it down regardless of consequences. This is really the gist of Sir W. Fergusson’s address, and no more mischievous public utterance has, we venture to say, been made in our day. . . . . . Sir W. Fergusson has thrown all the weight of his great authority into the scale on the side of dirt and disease.”

And again: “For an eminent doctor to lift up his voice against fastidiousness in regard to pure water, strikes us as pretty much the same thing as if the Bench of Bishops were to take to preaching against undue sensitiveness with regard to sin. Absolute purity, they might say, is quite unattainable; the best of us are bad enough when put to the test, and therefore it is not worth while to make ourselves uneasy about a few spots more or less.”

Finally: “A little loose talk may be allowed to politicians without much fear of the consequences, but doctors, of all people in the world, should be careful what they say.”

The criticism in the Saturday Review is pungent but logical.
Bibliographical Notices.


This new edition of a well-known book contains the three Gulstonian Lectures, delivered before the Royal College of Physicians in 1870, with an additional one on Conscience and Organization, read at the opening of the Psychological Section of the British Medical Association in 1872. Two new psychological essays have also been added, on Hamlet and Swedenborg. The first edition was so briefly noticed in this Journal that it may be well to glance at the three original lectures, as they conduct, by natural sequence, to the fourth.

Lecture I., on the Physical Conditions of Mental Functions in Health, is a careful tracing of the development of mind from the earliest and humblest manifestations of animal life. Reflex Action, Purposive Acts, Secondary Automatic Acts, Sensori-motor Acts, Education of Nerve Centres, Memory, Volition, Mental Organization, Motor Intuitions, Gesture Language, Muscular Expression, and Organic Functions and Sympathies—these are some of the running titles by which the scope of this lecture is made evident.

Lecture II. considers Certain Forms of Degeneracy of Mind, their Causation, and their Relation to other Disorders of the Nervous System. It treats of the heredity of idiocy, and Dr. Howe is quoted to prove that one-half the idiots of Massachusetts are offspring of intemperate parents. The pedigree of an idiot, traced by Morel, through four generations, showed seven or eight degenerative varieties. Many remarkable instances of theroid (beast-like) degeneracy are given in detail, which tend to support Mr. Darwin’s views. The brain weights of distinguished individuals are compared with averages of civilized men, savages, Hottentots and Bushmen. The degeneracy of the insane neurosis, or temperament, is discussed and illustrated, showing the tyranny of organization over the moral sense, especially.

Lecture III., on the Relations of Morbid Bodily States to Disordered Mental Functions, deals with the forms of insanity more directly. Many of the terms employed are those of the attempted causal classification of Dr. Skae.

Lecture IV. is the new one, on Conscience and Organization. It is a bold and reasonably successful effort to deal with a subject which the teachers of many centuries have ignored; and to-day, many men of scientific ability, in treating it, abandon the scientific method, with a blindness to facts and reason not to have been expected of them. The higher attributes of mind cannot be dismembered from their lower and physical relations. Dr. Maudsley shows that the Greeks entertained more enlightened views of the nature of madness than prevail even at the present day. Plato, Aristotle and Hippocrates repudiated the notions of the Greek poets, that one disease was more divine than another. The latter assert that all madness is of purely physical origin, amenable to medical and moral treatment. Philosophy, which mounted so high in the Grecian era, was lost beneath waves of ignorance and superstition in the middle ages, and when a
revival of learning occurred, "scholastic subtleties and metaphysical mysticism" took its place, and prevail, more or less, to-day. Theology has made common cause with metaphysics in resisting the inroads of scientific inquiry into the domain of conscience. We have but just regained the stand-point of the Greeks, and are in position to include in our physical researches the highest functions of mind, the moral sense and the will.

Science does not propose to bridge over the gap between nerve elements and mind. It probably can never demonstrate the real nature of the mental force, nor leap from the movements of the nerve molecules to consciousness. The how and the why of certain uniformities of sequence between nervous and mental phenomena it does not even aspire to know, any more than to know the actual causes of heat, electricity or gravitation. These are all alike mysteries, but the regularity and certainty of certain sequences may be known, and the laws of the relations between matter and mind, in its highest departments, may and should be thoroughly investigated.

Dr. Maudsley's statement that Milton found no difficulty in believing that matter was capable of intellectual functions, has shocked some of his critics, but it is amply borne out by quotations, both in prose and poetry. The criminal neurosis, the criminal psychosis, and the heredity of crime are next discussed, and arguments are drawn from the frequency of moral impairment in insane families, as well as among the insane, to prove that the highest attributes of mind are, like the lowest, largely dependent on cerebral organization.

The essays are interesting and instructive, but space will not permit their consideration here.

T. W. F.

BOOKS AND PAMPHLETS RECEIVED.


To Cook Rice.—The following is an account taken from an old number of the Gazette des Hôpitaux, of the method recommended by the French Academy, for cooking rice, during the siege of Paris:—

Take one cup of rice and one-fourth of a cup of water in a saucepan—cover and place over a good fire; after an hour the water will be evaporated and the rice cooked, tender, but dry and with the grains distinct—not in a paste; sufficient salt should be added in the first place, and care should be taken not to disturb the rice whilst cooking.

By adding a little butter, and allowing the rice to dry a little more over a gentle fire, a more delicate dish is prepared.

Rice cooked in this manner, which is the same as that employed in the East Indies, bears the same relation to the indigestible paste of the New England kitchen as does bread to boiled flour.
BOSTON LYING-IN HOSPITAL.

An institution, bearing the above name, and incorporated by the Legislature of Massachusetts, is situated at No. 24 McLean Street, in this city. Its officers are as follows: President, Charles Hamilton Parker; Vice President, Francis Boyd; Treasurer, Thornton K. Lothrop; Secretary, F. A Hall.

Directors, Charles G. Putnam, M.D., Abbott Lawrence, Charles E. Ware, M.D., James Ayer, M.D., Thomas Hollis, Horace Dupee, M.D., William Amory, Samuel K. Lothrop, Thomas Restieux, Uriel Crocker.

Francis Minot, M.D., John P. Reynolds, M.D., C. E. Buckingham, M.D., Consulting Physicians.

Henry Tuck, M.D., William L. Richardson, M.D., Attending Physicians.

We wish to call attention to this institution in consequence of a concern which has taken the name of Boston Lying-in Hospital, on the corner of Kendall and Tremont Streets. By what right they have assumed the name, we do not know. The list of their officers, as published in the daily papers, we give below.

Directors, James McDonough, Martin Betts, P. H. McGlynn, James McCormick, Richard Roach, Benjamin Ellison, Thomas S. Monahan, Robert Maxwell, Hubert Smith, M.D., the Hon. John Ellis, George D. Pettee and T. H. Smith, M.D.

At a meeting of the directors, a board of officers was elected as follows:—

President, J. H. Smith, M.D.; Treasurer, Robert Maxwell; Recording Secretary, James McCormack; Corresponding Secretary, Hubert Smith.

The report of the directors says, so the papers say, that during the year thirteen hundred and forty-six patients have been treated, in and out of the house, and that in three days previous to the annual meeting there were two hundred and six applicants.

We should like to call the attention of the daily press to the list of names, and to their absurd statement, which is evidently intended to advertise something.

Though we have not yet complied with the request of the British Medical Journal to express an opinion upon the last case of alleged death from ether in England, it should not be inferred that we have
been in doubt as to its cause. Our desire to present a careful and comprehensive view of this case, and, once for all, to elucidate this and similar occurrences, so far as we may be able, has led us to refer the matter to a gentleman, who, from his experience in the administration of ether from the date of its introduction and from his intimate knowledge of its surgical relations, is, perhaps, better qualified than any other to express an opinion upon this subject. He has kindly promised to furnish us for our next issue some remarks upon this question.

A step which, in spite of its ludicrous character, is of some importance in settling the question of the admission of females to the Massachusetts Medical Society, occurred on Nov. 5th. This was the union of the New England Female Medical College to the so-called medical department (Homœopathic) of Boston University. The importance is that the graduates of the institution are excluded from all professional recognition. The ceremonies celebrating the union were novel and varied, including speeches, music and verses; but a tinge of sadness was imparted to the closing, by a lady's singing "Good night, my heart," which showed but too plainly that it was a match of interest rather than of affection.

The result of the State election, on November 4th, is gratifying, for it appears likely that a majority of the new legislature will be in favor of modifying, perhaps of repealing, the present obnoxious and demoralizing liquor law.

We have no hesitation in announcing our determined hostility to the present state of affairs, and hope, at the proper time, to give our reasons in detail. No one has the right to accuse us of being unfriendly to the cause of true temperance, for the law has produced nothing but opium-eating, secret drinking, hypocrisy, black mail and State constables.

Foreign Body in the Bladder. Extraction. Peritonitis. Death.—A lead-pencil having been introduced into the urethra of a young man, aged twenty-seven years, slipped from the fingers, and disappeared in the canal and, as commonly happens in such cases, very soon found its way into the deep portion of the urethra. Subsequent attempts at extracting the pencil had the effect of pushing it completely into the bladder. Five days after the accident, the patient entered Hospital Saint Louis. He was found to be in a state of great mental anxiety, and complaining of pain in the lower portion of the abdomen. Although micturition was performed without difficulty, the root of the penis, the scrotum and perineum were all greatly swollen, red and oedematous. The symptoms being urgent, perineal section was resorted to without delay by M. Péan, and the lead-pencil easily ex-
tracted. It was found to measure about four inches in length, the blunt extremity being first introduced. The extraction of the foreign body was not followed by a diminution of either the general or local symptoms, and death ensued in the course of a few hours, with the usual signs of severe peritonitis, the explanation of which was revealed by the autopsy. On the floor of the bladder, a small infundibuliform perforation was found, penetrating the entire wall, and produced evidently by the point of the pencil. This perforation had given passage to a quantity of urine which, infiltrating the tissues of the pelvis, had been the origin of the severe symptoms to which the patient had succumbed.

This example serves to illustrate the disastrous effects of sharp-pointed objects upon the mucous membrane of the genito-urinary apparatus, and the possible necessity, in similar accidents, of recurring at once to perineal section, without wasting time in attempts at extraction by the urethra, which too often have only the effect of increasing the inflammation produced by the presence of the foreign body.—L’Union Médicale, Aug. 21, 1873.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

The operations on Saturday last were as follows:—excision in two cases of chronic mammary tumor, and in a case of tumor of the leg; the exploration and removal of part of a carious rib, and the removal of necrosed bone from the tibia and ulna.

The first mammary tumor had grown gradually without pain. It was about the size of a hen’s egg, and was quite defined and free in the substance of the gland. The patient was a married woman, twenty-six years of age. Dr. Cabot removed the growth.

The second was smaller than the one just described, but its attachment was deeper and pedunculated. It had been growing two years, accompanied with pain. The patient was twenty years old and married. The tumor was excised by Dr. Bigelow, and the wound left open to forestall the deep burrowing of pus.

The tumor of the leg, in size that of a walnut, was recurrent, and had followed the removal of a fungoid growth by caustic, about a year before. It was movable, obviously based upon the skin, and was located below the tibia. It was removed by Dr. Cabot.

The sinus above alluded to, was situated on the left side of the back, and was the result of a gun-shot injury received at the battle of Antietam, ten years since. He had profuse hæmoptysis at the time of the injury. Numerous pieces of bone had been discharged through a fistula near the spinous processes and over the sixth rib. A probe, entered there by Dr. Bigelow, passed several inches upward to the fourth rib, where rough bone was detected on the upper edge. The sinus was largely laid open and the carious bone removed by a spherical rasp.

Dr. B. then exhibited a man with enormous distention of the internal saphenous vein. He called attention to the fact that, while there was a general distention of the cutaneous veins of the foot, in the leg the disease was chiefly confined to the main trunk. An indurated swelling of some size, occupying the saphenous opening, was supposed to be due to local inflammatory action in the vein, and was not a morbid growth. In varix, and especially so large a one, the deep veins of the leg are usually implicated, and surgical interference, whether by caustic, ligature or excision, besides sub-
jecting the patient to some risk, affords only temporary relief. As a rule, in varix, he advised no surgical operation. An elastic stocking was recommended.

Dr. Cabot operated upon the tibia of a young adult, with necrosis. The disease was central, and required extensive removal of the involucrum with a chisel and mallet. He also removed a superficial fragment from the ulna of the same patient.

H. H. A. BEACH.

BOSTON CITY HOSPITAL.

LAST Friday, November 7th, Dr. H. W. Williams operated for enucleation of the eye-ball. The patient had been struck, several years previously, by a fragment of an exploding shell. Besides loss of vision, he had suffered from repeated inflammatory attacks of the eye. The sensitiveness of the affected organ, shown by these renewed inflammations, gave good reason to anticipate the occurrence, sooner or later, of sympathetic ophthalmia in the other eye. On this account, enucleation was performed under ether.

The eye-ball, on removal, was found atrophied, its tunics partly disorganized, and from the ciliary region an exudation into the vitreous had taken place. There was no trace of a foreign body.

Dr. Fifield operated for necrosis following double fracture of the lower jaw. The fracture had been caused by very slight violence—a moderate blow from the fist of a companion of the patient. The usual means to secure union had failed. One fracture was near the symphysis, the other through the ramus; the former was the seat of the necrosis. The sinus was enlarged by a crucial incision, whose flaps were dissected from the bone. Several fragments of necrosed bone were readily removed, leaving a portion behind; efforts to remove the latter were attended with too much straining of the still imperfect union, and this part was allowed to remain to exfoliate.

Several cases are under treatment in the surgical wards of the City Hospital which illustrate the practical utility of Dieulafoy’s aspirator. Dr. Fifield showed a case of metastatic abscess which had been cured by means of this instrument. The patient, an adult male, had been injured on the railroad, the wheel of a locomotive having greatly bruised the elbow, fracturing the external condyle and lacerating the soft parts extensively. It was decided not to amputate or resect, but to leave the case to take the chances of recovery without operative interference. Much sloughing about the injured part followed. Three days after the injury, a chill occurred, followed by typhoidal symptoms, tympanites, enlarged liver, sallowness, increased temperature, and all the symptoms of pyemia. Then a fluctuating swelling was discovered on the right hip, behind the great trochanter. This was punctured with a fine (No. 1) needle of the aspirator, and nearly a quart of pus was withdrawn. Every morning subsequently, during the next three weeks, the aspirator was used, the matter withdrawn varying in character from laudable pus to clear serum, and gradually diminishing in amount until, at the last puncture, only three ounces came away. The abscess, then left to itself, quickly disappeared. The patient’s improvement in general condition kept pace with the persistent daily evacuation of the pus, and, except ulceration at the seat of the original injury, he is now well.

Two cases of acute abscess have been similarly treated by Dr. Gay, and with similarly good results. In both instances, the abscess was located in the thigh. One originated without injury, in connection with a varicose ulcer; here, the aspirator removed, at first, three ounces of pus, then, a few days later, two ounces, then, finally, an ounce and a half. After a few days, the parts were fully restored.

The other case resulted from the blow of a fall on the hip. A week after the injury, an abscess developed, the termination of extensive inflammation of the soft tissues. The aspirator was used, and ten ounces of pus came away. After five days, the operation was repeated, and two ounces of bloody serum was discharged. Another puncture will be made, to remove the little now remaining in the greatly contracted sac.

In two cases recently, the aspirator has been employed to relieve the blad-
Correspondence.

LETTER FROM DRESDEN; NEW HOSPITAL.

DRESDEN, Oct. 4, 1873.

MESRS. EDITORS,—The various novelties and improvements which have been introduced into the new surgical hospital now being erected in this city, and which are highly commended by the physicians in charge, render it well worthy of a visit from passing medical men.

The general plan struck me as not unlike that adopted in the fine hospital at Leipzig, the accommodations for surgical patients consisting of a central stone building, three stories high (as yet unfinished), connected by means of covered passage-ways, with several brick pavilions, each capable of receiving thirty patients. The wards in these pavilions are capacious and well lighted, and have small bathing rooms attached, while the arrangements for regulating the temperature and ventilation are remarkably good. Each building has a double roof, and a basement, the floor of the latter being two or three feet below the surface of the ground. In each of these basements are two furnaces of moderate size, the heated air from which is conducted directly into the ward above by means of two pipes, which rise in the ward a distance of about six feet from the floor, so as not to inflict any direct draught upon the surrounding patients, and, being covered by ornamented tiles, bear a close resemblance to the ordinary German stove. The hot-air chamber communicates with the free air of the basement, and, by the aid of dampers, the supply of cool or hot air may be regulated at will. In summer, the same registers are made use of for lowering the temperature of the wards, by giving passage to the cool air of the basement. A draught is created by connecting the atmosphere of the ward with the air contained in the space within the double roof, whence it passes off into the open air. The communication between the air of the ward and the space between the two roofs is established by means of twelve iron pipes let into the wall, each pipe having two openings that may be closed at pleasure, one opening being near the ceiling and the other near the floor. In very warm weather, the air between the two roofs being heated by the rays of the sun, rises and escapes, and its place is at once supplied by the air from the ward beneath, and thus by means of the registers a direct current is established from the basement into the ward. If the heat is excessive, the cemented floor of the basement is sprinkled with cold water. The evaporation of this water, which is aided by the large open windows on each side, serves to bring down the temperature by several degrees, and the warmer the day, the more rapid will be the current of air upward. As a matter of fact, it has been found, after an experience of two summers, that in the warmest weather, the temperature of the wards could be kept in the vicinity of 72° to 74° Fahr. Of course, the arrangements above described also serve for the purpose of ventilation, but to secure even greater purity of the atmosphere, each pavilion is provided with four chimneys, three intended to carry off the smoke from the furnaces and from the smaller fire used in heating water, and one solely for ventilation. These chimneys have an iron pipe running through the middle, through which the smoke escapes, while the intervening space between the pipe and the brick sides communicates with the wards. It will be understood that a current is established between the wards and the chimneys by means of the
heat derived from the iron-smoke pipes. All the chimneys are provided with open grates, by means of which the wards may be heated and ventilated when there are no fires in the furnace.

The practical working of this system of ventilation was certainly excellent, and I found the air of the wards perfectly free from those peculiar odors that are generally considered inseparable from a hospital ward.

Yours truly,

E. H. Bradford, M.D.

EXAMINATION OF WATER FROM THE WELL OF THE BAY VIEW HOUSE, AT MT. DESERT, ME.

Messrs. Editors,—The following is the result of an examination of a specimen of well water received from Dr. Wm. J. Morton, and referred to by him in an article on "Typhoid Fever at Mt. Desert." (Vide the Journal, Oct. 30th, p. 421.) The water was, unfortunately, received so late that it was impossible to complete the analysis in time for the publication of the results with Dr. Morton's article.

The vessel in which the water was received was tightly closed with sealing wax, so that contamination of its contents by external substances was avoided.

The water, on removal from the vessel, had a specific gravity of 1001 at the temperature of 144° R. (= 644° F.). It was very turbid, the sediment appearing white when in suspension in the water, but after settling it had a light brown color. Its odor was vile, resembling that of bilge water, and the presence of sulphuretted hydrogen was easily distinguishable, not only by the odor, but also by the fact that a piece of bibulous paper, moistened with a solution of acetate of lead, was turned black immediately when introduced into the vessel containing the water.

A determination of the solids resulted in the following figures, calculated so as to give the number of grains contained in a United States gallon of 231 cubic inches:

| Inorganic | - | - | - | 9.901 |
| Organic and volatile | - | - | - | 7.711 |
| Total residue | - | - | - | 17.612 |

The amount of sediment was so great as to render a layer of the water one inch in thickness non-transparent, and a microscopic examination revealed in it the presence of ordinary animalcule, vibriones and fungi, such as are seen in liquids containing decomposing organic matter.

The above examination, although very hastily performed, gives results which prove beyond a doubt that the water is totally unfit for drinking purposes, and that it must be contaminated in some manner by drainage. The sulphuretted hydrogen must have been formed by the decomposition of some organic material which contains sulphur, such as albumen, and its presence is in itself sufficient evidence of the pre-existence of such organic material in the water.

The sediment and vile odor were developed by decomposition of the organic matter contained in the water after its introduction into the vessel, since Dr. Morton describes the water, when fresh, as "clear and sparkling."

Edw. S. Wood, M.D.

Messrs. Editors,—I desire to state that the notice of the appointment of Dr. Wm. P. Brechin as aural surgeon to the Boston Dispensary, which appeared in your Journal of October 23d ult., was wholly unauthorized by me. No such appointment has been made.

Absence from the city has prevented an earlier denial of the appointment.

Yours, &c.,

A. L. Haskins, M.D.,
Superintendent of Boston Dispensary.

261 Tremont Street, Nov. 6, 1873.
SMALLPOX is stated to be prevalent in Newark, N. J.

AMERICAN MEDICAL GRADUATES.—The various American medical colleges have graduated this year about twelve hundred students.

THE city government is taking steps towards a public park. This is as it should be, but there is one public improvement of greater urgency which must not be overlooked—that is drainage.

THE American Public Health Association convened in New York on Tuesday of this week. Many interesting topics are announced for discussion during the three days' meeting.

JUST as we go to press, we learn that a death from ether is reported to have occurred on the 10th, in the practice of a dentist of this city. We have not had time to obtain many details, but we understand that the anesthetic was undoubtedly CHLOROFORM, or a mixture of chloroform and ether.

PROF. STRUTHERS has caused a good deal of discussion in England by a paper on the Appendix Vermiformis, read at the late meeting of the British Association for the Advancement of Science. He maintains that it is useless and injurious, and consequently a vestige of a useful organ in a lower form, and consequently again, a proof of evolution. If it were useless, according to the doctrine of evolution, it would show signs of gradually disappearing, which is not the case. Its walls are full of well-developed glands, showing that it has a purpose, though we do not as yet understand it.

BAD TEA.—The question of spurious or injurious tea seems to be growing important. The Chinese have discovered that tea-leaves mixed with dung, iron filings and other substances, all powdered fine, suits the English market, and are sending compounds of that sort over in huge masses, of course not without connivance from some English dealers on this side. On Tuesday, it was alleged by the Sanitary Commissioners of the city (London) that no less than 10,000,000 pounds of such tea, totally unfit for human food, was in bond ready for sale. The quantity would, we believe, be greatly increased if partially adulterated tea were added to the list.—Spectator.

PHARMACEUTICAL ERRORS.—A Marseilles chemist has been condemned to pay a fine of 100 francs and damages of 200 francs for delivering a mischievous-ly excessive dose of arseniate of soda (beyond what the physician had prescribed). The patient showed symptoms of arsenical poisoning. The apprentice who prepared the draught was acquitted.—Brit. Med. Journal.

AFTER attacking a large number of persons—amounting, up to September 1, to 104,000—the cholera has decreased in Hungary; but in place of it pernicious fever has occurred, and has threatened to prove formidable. It has, therefore, been suggested to retain for the present the services of the medical men who were sent into the various districts to attend the cases of cholera.—British Medical Journal.

THE MUSCULAR SUBSURRUS IN RELATION TO THE FETAL HEART-SOUNDS.—At a recent meeting of the London Obstetrical Society, Dr. J. Braxton Hicks called attention to a point with regard to the diagnosis of pregnancy and the life of the fetus by means of the existence of the fetal heart-sounds, which he had not unfrequently observed in the course of his practice, but which he did not remember to have seen in print, and summed up his observations as follows. 1. The number of vibrations of the abdominal muscles in a state of half suspension can be distinctly counted, watch in hand. 2. Their number and sound are so like those of a very rapid fetal heart that they may be mistaken for them.—British Medical Journal.
We learn from a recent exchange that the English government is offering iron hospitals to various unions throughout Ireland for the sums of £220 to £250 and £280, according as they are to contain twelve or twenty patients. They can be set up and made ready for occupation in a month, and are said to be, with water-closets, nurse-rooms, wash-rooms, &c., complete. If they be what they seem, these iron hospitals appear to solve the question of hospital construction, costing, we should suppose, furnished, not more than one hundred dollars a bed.—Phil. Med. Times.

The Connecticut River Valley Medical Association held its October meeting at Brattleboro' on Wednesday, the 29th ultimo. Typhoid fever, being the most prevalent disease in this locality during the fall months, afforded a large theme for discussion. Among the cases presented to the Society was one of interest, where the heart was found to be transposed to the right side of the sternum. This was the congenital condition of things. The Society paid the Vermont Insane Asylum a visit, and were much pleased with its arrangements. Resolutions on the death of Dixie Crosby were passed. The address of Vice President Dunham was received with favor, and voted to be published.

E. H. Pettengill, Sec.

The death of the prize fighter, John C. Heenan, by phthisis will strengthen the general belief that it is an affection to which those of his calling are particularly liable. The popular theory is that it is due to the terrible pounding received on the chest during a fight. If it be true, as we think is the case, that prize fighters are more inclined to consumption than their equally dissipated associates, it nevertheless admits of another explanation. Though strong in muscle, these men, owing to the nature of their lives, have early impaired constitutions, and to such the very severe training to which they are subjected is doubly injurious.

Sayers, Heenan's last antagonist, died of the same disease.

NOTES AND QUERIES.

Who cuts gums? What does he do it for? Will any one give us his personal experience of its advantages over the let-alone system, if it has any, and oblige Boston.

Gum Lancet.

MARRIED.—In Rockport, 5th ult., Dr. E. E. Barden to Miss Etta Gott, both of Rockport.

MORTALITY IN MASSACHUSETTS.—Deaths in fifteen Cities and Towns for the week ending November 1, 1873.


Prevalent Diseases.—Consumption, 54—typhoid fever, 21—scarlet fever, 19—pneumonia, 12.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Nov. 8th, 1873. Males, 83; females, 74. Accident, 9—apoplexy, 3—anemia, 1—inflammation of the bowels, 2—bronchitis, 2—inflammation of the brain, 2—congestion of the brain, 1—disease of the brain, 6—cancer, 3—cholera infantum, 3—cynosis, 1—consumption, 27—convulsions, 5—croup, 3—debilirity, 3 diarrhoea, 5—dropsy, 2—drowned, 1—diphtheria, 5—exhaustion, 1—cystis, 2—scarlet fever; 8—typhoid fever, 9—gastritis, 1—disease of the heart, 4—intemperance, 1—disease of the kidneys, 1—congestion of the lungs, 2—inflammation of the lungs, 5—marasmus, 2—old age, 10—orchitis, 1—paralysis, 5—puerperal disease, 3—pyaemia, 1—pleurisy, 2—premature birth, 1—peritonitis, 2—rheumatism, 1—stricture of urethra, 1—suicide, 1—tuberculosis, 1—tumor, 1—whooping cough, 1—unknown, 8.

Under 5 years of age, 55—between 5 and 20 years, 15—between 20 and 40 years, 38—between 40 and 60 years, 15—over 60 years, 38. Born in the United States, 101—Ireland, 31—other places, 22.
ALLEGED DEATH FROM ETHER.

To the Editor of the British Medical Journal,

SIR,—Your issue of October 11th contains the following:—

"We have this week to make the sad announcement of a death from the inhalation of ether. It occurred at the South Hants Infirmary. We shall be glad of the comments of Dr. Morgan and our Boston contemporaries."

The avowed interest attaching to death from ether, compared with that attending the rather common occurrence of death from chloroform, attests its rarity; and those who have been long familiar with the safety and efficiency of the former may think it perhaps a little late to subject it in England to an experimental test which the comparative fatality of chloroform seems at length to have secured for it. I venture to comply with the invitation with which you have honored your Boston contemporaries, believing that until some anaesthetic shall be discovered equally safe, with less odor and less bulk, or perhaps some better form of anaesthesia than that by inhalation, ether must be considered on the whole our best anaesthetic. We need not here distinguish too nicely between anaesthesia, narcotism, and inebriation, when effected through the lungs. It is more important that special attention should be directed to several points connected with this subject which seem to be inadequately emphasized in contemporary European literature, especially asphyxia, pulse, and the real difference between what the journals somewhat promiscuously denominate "death from ether" and "death from chloroform."

The Massachusetts General Hospital numbers more than 15,000 cases of ether inhalation, 6,000 of which have been recorded within the last five years. The quantity of ether consumed during these five years has been about 2,800 pounds,—half a pound, more or less, to a patient; in one case four and a half pounds in twelve hours. It fell to my lot, in 1846, and for a year or two after the discovery of ether anaesthesia, as junior surgeon, to administer most of the ether in that institution; and having been personally cognizant of a large proportion of the cases of its administration there, down to
the present time, besides those in my own practice, I have never been satisfied of the occurrence of a single death which could be attributed to any property of ether, apart from the gradual and progressive inebriating influence which it possesses in common with other anaesthetic agents.

A detailed report of a case involving so urgent symptoms and so prompt action as the one alluded to is obviously liable to inaccuracy, and the account should therefore be accepted with reservation, and rather as a good illustration of an emergency quite likely to recur in the experience of those who may believe, with a late English medical journal, that the less the air, during ether inhalation, the better the anaesthesia, or, with the French chemist, that nitrous oxide only asphyxiates. Nobody doubts that asphyxia produces insensibility. This is easily shown with a bag containing a few gallons of atmospheric air. But this insensibility, necessarily brief, is unattended by exhilaration. It is distressing, accompanied by lividity, by rigidity if pushed far enough, and is doubtless responsible for much of the dread which certain patients have of pulmonary inebriation.

The case in question is reported as follows:—

"David Newman, aged 14, a strumous lad, who had suffered from repeated attacks of cornitis, was admitted an in-patient of the above institution on September 25th, 1873, under the care of Dr. Lake. On Wednesday, October 1st, he was brought into the operating room in order that iridectomy might be performed. When on the table, he exhibited considerable alarm, and required some persuasion before he was induced to lie down. Dr. Griffin having taken charge of the pulse, half an ounce of ether was poured on a sponge contained in a cone of spongio-piline, and the latter was closely applied to the mouth and nose. After a few minutes' inhalation, the ether being nearly exhausted, three drachms more were poured on the sponge. Shortly after commencing to inhale this second quantity, he began to struggle violently, getting at length into a state bordering on opisthotonos, his face becoming intensely scarlet. Dr. Griffin then announced that his pulse, which up to this time had been perfectly natural, had become very feeble. The ether was at once discontinued, when, the pulse having improved, Dr. Lake operated, no more ether being administered. At the close of the operation, which occupied only a few seconds in its performance, and before the eye could be bandaged, the pulse became imperceptible, the breathing was suspended, and the countenance livid. The tongue was drawn well out of the mouth, and held there; the calves of the legs were vigorously flagellated, and the chest freely slapped with a wet towel. The effect of these measures was to cause the patient to respire freely, to cry out lustily, and to kick about on the table; but this improvement did not last long,—probably about a minute. The pulse at the wrist did not return, and the breathing again stopped."
Artificial respiration, electricity, &c., were resorted to, but without effect, and the autopsy revealed nothing of importance.

In order to be clearly understood, let me here concisely re-state this account, as I interpret the phenomena.

A feeble boy was etherized. During this process, though only partially narcotized, he was very completely asphyxiated, and, when nearly dead, was operated on without efforts at resuscitation. When at last his absolute prostration awakened serious alarm, he was vigorously flogged with the view of restoring his exhausted strength; and under this active stimulus was excited to a final muscular effort which expended and extinguished his flickering vitality. I believe that such a death might have occurred without the ether.

Let us consider the circumstances in detail, and see whether or not they substantiate this hypothesis; and first, the apparatus employed for \emph{inhalation}. This was calculated to produce asphyxia.

If the spongio-piline was covered, as usual, with rubber, no air could reach the patient, except in the interstice between the cone and the patient's face. But, according to the account, the cone was closely applied. If so, absolute asphyxia would ensue. It may seem superfluous to say that during the etherizing process a patient must live, as usual, upon oxygen. Let us even needlessly assert that without it a man must die. Ether will not save his life, if he is deprived of oxygen. It would not have saved Desdemona.

Asphyxia did ensue; but its symptoms passed unheeded. The patient struggled violently. Now a half-conscious struggle often results from mere muscular excitement, and is of little moment. But a rigid struggle, with opisthotonos, is very different. Such a spasm is connected with asphyxia, and may involve the muscles of the larynx. In this connection, let me remark that there is a wide distinction between the common and desirable snore of a relaxed and vibrating soft palate and a croupy stertor of the contracted laryngeal aperture. The latter is a part of that general rigidity of which opisthotonos is a manifestation, and by excluding air it indefinitely prolongs the asphyxia which occasions it. Air is its only remedy.

These appearances are familiar, in the practice of the Massachusetts General Hospital, even to the house pupils and ward tenders, to whom etherization is habitually entrusted. Lividity of the forehead indicates a probable similar color of the blood within the head, and announces that spasm may not be far off. Conversely, muscular spasm and laryngeal stertor direct attention to the color of the face. All these symptoms raise the question of admitting air promptly, and until the natural color returns. Indeed, it sometimes happens that because the muscles are rigid a patient seems imperfectly etherized, when the experimental admission of air relaxing the muscles proves the contrary. Even a half-conscious resistance, terminating in insensibility, often makes the patient a little livid; so that a struggle then suggests examination of his condition, and sometimes an interval and re-commencement.
If all this be true of inhalation with a sponge, through the meshes of which air has free access to the lungs, and which for hospital use, if not the most economical, is beyond comparison the simplest and safest ether inhaler, what were the chances of a slender boy, struggling desperately for breath, rigidly convulsed with opisthotonos, his face congested, his mouth and nose still sealed by an impervious cone forcibly and closely applied until the pulse gave way?

I unhesitatingly submit asphyxia as the primary cause of death, upon this report.

Notwithstanding this condition of the patient, he was operated on. With so complete asphyxia, it would in Boston be considered of the first importance, before operating, to re-establish respiration, pulse, and color; after which, more ether might be administered, to complete the anaesthesia. But in this case no such efforts were made, and no such interval was allowed. After a few seconds, which were occupied by the operation of iridectomy, the patient still livid from his struggle with the closely applied cone, "the pulse became imperceptible, the breathing was suspended," and in "about a minute" he was dead.

To this overwhelming effect of asphyxia upon a slender subject was doubtless added a certain amount of ether inebriation; but there is abundant evidence that this was but partial and incomplete. The quantity of ether administered was inconsiderable; and it is distinctly stated that the patient, when his legs were vigorously flagellated, and the chest freely slapped with a wet towel, "cried out lustily, and kicked about on the table," during the one minute he lived after the operation. Narcotism had not even reached insensibility to pain. No such imperfect ether anaesthesia can be held as principal in such a death.

It would be equally unphilosophical, in view of these facts, and in an endeavor to shift responsibility, to accuse the improbable shock of so slight a surgical operation, and still more any mysterious and as yet undiscovered property of ether, outside of that familiar, gradual, and comparatively innocuous influence which it possesses in common with other intoxicating agents. Further reference will be made to this.

A word about restoratives. The most effectual method of resuscitating a patient asphyxiated or over-dosed with ether is at once and quietly to get good air into his lungs. The volatile quality of both chloroform and ether makes their elimination from the pulmonary surfaces so easy, that, even when breathing seems to have ceased, a little thoracic movement, artificially assisted, generally enables the patient himself to reestablish respiration and brings up the pulse. A feeble boy, who had exhausted his strength in a violent struggle for breath and life, would have no great stock in store to respond to a vigorous flagellation. In this respect he might differ from one who had gone tranquilly to sleep with opium.
In arraigning ether, let us not confound things. All powerful therapeutic agents and expedients may, under certain circumstances, contribute to depress the system—ether and chloroform among the rest; chloroform, as stronger than ether, possessing, of the two, the greater depressing influence. But this effect of a mere narcotism common to both, and which may contribute to the death of a feeble or dying patient, is not the real subject of discussion in the medical journals. The question is, has either of these agents, besides this gradual narcotic power, any additional, different, and peculiar quality, which renders it dangerous? To this I unhesitatingly reply, that chloroform has, and ether has not.

When we say "death from chloroform," we mean death by a shock or poison peculiar to chloroform, even when inhaled by a healthy person, under the most favorable circumstances, with abundance of air, and with every precaution; sometimes occurring at the beginning of anaestheia undertaken for a trivial operation, almost as if by prussic acid; the sudden failure of a normal pulse indicating that the patient is beyond recovery.

With ether, I believe this to be simply impossible. It always acts slowly, never depressing the vital powers suddenly, or beyond recovery, without fair warning by the pulse in time to avert danger by the simple expedient of filling the lungs with unadulterated air.

In a somewhat extended paper upon anaesthetic agents, written in 1848 at the request of the American Medical Association, and published in the Transactions of that body, about one year and a half after Morton performed his first painless extraction of a tooth, and only a few months after Professor Simpson's first experiment with chloroform, the absolute necessity of air, the essential indication of the pulse, the difference between the snore of narcotism and the livid stertor of asphyxia, are all specified and insisted on. I may perhaps be pardoned for quoting, in conclusion, the following passage, which touches the main point of modern ether discussion.

"Ether does not prevent, nor is it to be considered responsible for, the ordinary collapse, resulting, in certain states of the system, after certain injuries and certain operations. The strong argument in behalf of ether is, that so few instances have occurred in which it could be even suspected of agency in fatal results.

"With chloroform the evidence is a little different. Two somewhat remarkable cases of death, occurring during the brief administration of this agent for surgical purposes, at once present themselves—the Cincinnati case, and that of Mr. Meggison at Winlaton. In these cases death occurred in about five minutes from the beginning of the inhalation. ** These instances suggest a specific cause of danger. This is the sudden impression upon the system of a powerful inebriating agent. Abundant alcoholic stimulus has often produced immediate death; and analogy would suggest that inebriating vapor in the lungs may be the equivalent of similar
fluid in the stomach, and that in one or both of the cases alluded to, chloroform may have produced a sudden and overwhelming shock upon the system."

Your Obedient Servant,
HENRY J. BIGELOW.

NOTE.

The inodorous and transitory character of anaesthesia by nitrous oxide, notwithstanding its attendant asphyxia, may recommend it for the brief extraction of a tooth; and we should not ignore the fact that chloroform insensibility is, perhaps, as safe as many other experiences which people do not hesitate to encounter—crossing the Atlantic, for example—and yet one accustomed to the use of ether in surgical operations protracted during an hour or more, with an occasional examination or inquiry about the pulse, and a suggestion to admit air, if the medical student in attendance happens to forget it, is not a little impressed by the solicitous and apprehensive circumspection attending English anaesthesia.

Under these circumstances, a few purely practical suggestions, in a familiar form, however superfluous or even trite to a part of the surgical world, may perhaps not inappropriately serve as a record of the current views and practice of etherization in the hospital with which I am connected—which has, perhaps, a larger experience than any other, of this form of anaesthesia.

1. Accept the odor and bulk of ether as a cheap compromise for the safety of the patient and the confidence it gives the operator.

2. Believe that its anesthetic effects, whether pleasant or objectionable, do not differ materially from those of chloroform.

3. Recognize the fact, that, while chloroform may kill without warning, ether never does.

4. Aim at anaesthesia by inebriation, not by asphyxia. With ether vapor, insure air to the patient. Though he struggle at the beginning, if he is not rigid or too livid, it is safe to compel inhalation; but if you can devote more time to the process, the resistance will be often less.

5. Use, and let hospital assistants use, a good-sized bell-shaped sponge; and then it may be a question of less rather than more air. The various forms of apparatus which restrict or graduate the quantity of air require more attention and more assistance. Of these a close bag is the worst. If the sponge is damp, it retains ether better, while the vapor is perhaps a little softer than when absolutely pure. The ready ignition of the latter suggests the precaution of moistening with water the skin and saturated linen, before employing near the face even galvano-cautery.

6. Keep the pulse in hand; at any rate, examine it often. When the pulse is right, the patient is so. With chloroform, the pulse may

be right and the patient wrong. If slow or feeble,* or if the patient snores more than he need, save his strength by giving air—at any rate, until the pulse comes up; but renew the ether before he is sensible of pain. If the pulse shows that he is suddenly faint, lay him down and give him air.

7. If the patient is livid or rigid, give him air.
8. If his glottis contracts, give him air.
9. If he breathes badly, put the finger inside the cheek to admit air over the base of the tongue.
10. Should he vomit, of which there is usually timely notice, give the matter free exit by turning the patient, if recumbent, well to one side. Although there is less nausea with an empty stomach, it is not well to starve a patient about to encounter a protracted operation.

11. From time to time evacuate the tracheal mucus from the fauces, during an expiration, with a sponge held in dressing forceps.

12. In operations about the nose and mouth, give, for convenience, a powerful dose before beginning. Impregnate the whole circulation to the degree it usually attains in the middle of a long operation. The patient is then easily kept quiet. Otherwise a volume of fresh blood may find its way to the brain, and suddenly revive him. Let the repeated dose be also heavy.

13. In these operations, expect blood in the trachea, and evacuate it like the mucus—but, by reason of its quantity, more promptly.

14. Indeed, if such an operation promises much blood, have a tracheotomy tube ready, with hooks to hold the incision open while they compress the veins, so that the tube can be entered by a cut or two in a few seconds.

15. Or insert the tube before the operation, and put a sponge in the pharynx. The patient may then be etherized through the tube. I have had occasion to resort to these expedients.

16. In artificial respiration, act with the patient, and not against him. He will not cease to breathe at once, and wholly. Enjoin silence; watch the first attempt at inspiration, and at the expiration compress the thorax, aiding its elastic reaction, if absolutely necessary, by Sylvester's, or other quiet method. See that the tongue is well forward.

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* "Here is the precaution against danger; ... this sign is the diminution of the force and frequency of the pulse.

"In an early case of the administration of ether by Dr. Morton, and which has been reported, the danger from over narcotism was quite as imminent as in any case I have since seen alluded to. As a bystander, on that occasion, I casually felt the pulse, and found it barely distinguishable; and though it subsequently still decreased, the means at once adopted for the restoration of the patient proved ultimately successful. This occurrence pointed to the pulse as an index of the stage of narcotism; a few subsequent experiments confirmed the belief; and I have not since hesitated to push etherism to complete insensibility, and to continue it, if necessary, during a length of time, provided the pulse remained full and strong. If it be retarded by ether, it is curious to observe with what certainty it recovers force and frequency, after a few inspirations of pure air. It will be inferred from these remarks that the pulse is to be carefully examined during the whole anaesthetic process, and that inhalation is to be temporarily discontinued at its indication." —Anesthetic Agents, &c., 1848.
17. Do not cool the patient by exposure and wet surroundings.
18. Being first assured that he can swallow a teaspoonful of water, feed him, if you like, with stimulus, during the expiration, but not the inspiration.
19. Give to all painful surgery, without exception, the benefit of anaesthesia; but a patient unequivocally exhausted by long disease—of the bladder, or of a joint, for example—or an habitual inebriate, may require care; without which, protracted narcotism may gradually depress his pulse beyond the rallying point. On the other hand, a healthy laborer, who reaches the hospital some hours after a railroad accident, cold, and literally pulseless at the wrist, from haemorrhage and exposure, is, as a rule, stimulated by the ether, during and after at least one amputation.
20. Notwithstanding every expedient, there is occasionally an un-toward subject who is habitually tetanic or livid, whenever ether-ized; or, more rarely, one whose respiration is notably intermittent before he becomes insensible. The latter requires attention. In children, it may be added, anaesthesia is cumulative.

Such are some of the minor considerations and prompt precau-
tions which collectively determine the question of life or death in the exceptional emergencies of anaesthesia by ether. Many of them apply with equal force to chloroform; but against the shock of chloroform and its sequences, whether "chloroformic syncope," "cerebral anæmia," or "cerebral congestion," precaution avails nothing.

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**SUCCESSFUL REMOVAL OF THE SPLEEN.**—In the *Raccoglitore Medico*, Dr. Sonsino gives an account of a case in which, on June 20th, Dr. Attilio Urbinato, of Cesino, removed a hypertrophied and mobile spleen. The incision was made in the middle line, and prolonged above the umbilicus, being at least seven inches in length. The operation was performed without much difficulty. After tying three small cutaneous arteries, opening the peritoneum, and drawing aside some loops of intestine, the spleen was seen, free from all abnormal adhesions, and of enormous size. At the inferior part was seen the gastro-splenic epiploon, which was adherent; and the vessels here were extremely dilated. At the upper part was seen the lower portion of the pancreas. The epiploon was detached, and the vessels tied. The ligatures, seven in number, were left inside without further precaution. The few ad-
hesions of the pancreas were overcome without difficulty, simply by means of the finger. The largest vessels, and the connective tissue which surrounded them, were secured by a metallic loop and hempen ligature. The "toilette" of the abdominal cavity was made with great care. The patient lost but little blood. The ligatures of the vessels tied were passed out between the sutures, of which there were five deep and five superficial. The spleen weighed two and a half pounds. The operation lasted an hour; the patient bore the chloro-
form well, and subsequently appeared to be progressing favorably, but died of peritonitis three days after the operation.—*British Medical Journal.*
Progress in Medicine.

REPORT ON DISEASES OF THE THROAT.

By F. I. Knight, M.D.

In General.


(2.) Notes on a solution of iodoform. Lewis Elsberg, M.D., Professor of Laryngology, &c.


(2.) Dr. Elsberg says that a great objection to the employment of iodoform (C₂H I₃) in substance is its bad odor, which is very penetrating and persistent; furthermore, there has not been in use any effective solution for topical application in cases where ointments are inapplicable. Rhighini used an ethereal solution for direct inhalation, and Dr. Sass used an ethereal solution, and also a mixture of iodoform and sweet almond oil by means of a spray producer for inhalation. Dr. Gubler requested Messrs. Odin and Leymarie to ascertain the relative proportions in which iodoform is soluble in ether, and the most favorable conditions for its preparation; their experiments and conclusions are published in the Pharmaceutical Journal, Aug. 2, 1873. The London Doctor for Sept. 1st tells us that experiments were made with pure ether of 65° Baumé (specific gravity .724), and also with ether of 62° Baumé, and 56° Baumé, the temperature being 13° C. Eight grains of tincture obtained with these ethers contained iodoform in solution, respectively, to the following extent:—

Ether of 65° Baumé 1.61 grammes.
" 62° " 1.26 "
" 56° " 1.13 "

Their conclusions are,
1. To employ iodoform in the crystalline state.
2. To make the solution in a red glass flask by simple agitation.
3. To use the following proportions:—

Crystallized iodoform, 1 gramme;
Ether (60° Baumé) 4 grammes.

Dr. Elsberg had a solution prepared with Squibb’s ether, and finds that it possesses all the advantages of iodoform in powder for local application, without its disadvantages. The solution smells only of ether, and the smarting produced on the mucous membrane is so momentary that the application is really painless. It may be applied to the mucous membrane of the throat, nose, mouth, larynx, vagina, rectum, &c. Its beneficial effects surpass Dr. Elsberg’s expectations.

Nares.

(1.) On Fibrous Polypus of the Nose, with particulars of a case and operation. George Lichtenberg, M.D., Surgeon to the German Hospital, &c. Lancet, Nov. 30, 1873. [The operation was one of Langenbeck’s, viz., by displacing the nasal bone, and the nasal process of the maxillary bone.]


(4.) Magnus. Der Nasenrachenraum; eine Studie am Lebenden gemacht. Archiv f. Ohrenheilk. vi. 4, p. 246 (Schmidt's).


(2.) Ciniselli's case, reported as one of naso-pharyngeal polypus, cured by galvano-caustic, seems to have been one in which the treatment may be considered to have been electrolytic as much as in the case of Brun. The tumor occupied the whole wall of the pharynx, completely stopping up the left nostril and partially the right, posteriorly. It extended deep down in the pharynx, and pushed the epiglottis against the base of the tongue. Its point of origin could not be determined. As it was not admissible to subject the much emaciated anemic patient to a bloody operation, Ciniselli decided to apply "galvano-caustic." On November 20, 1869, treatment was commenced with a small Grenet's battery, of eight elements. The steel electrodes were twelve centimetres long, and covered with caoutchouc to within two and a half centimetres of the end. The needle of the negative pole (zinc) was introduced into the polyp through the left nostril, the other through the mouth into the right side of the tumor. The electric current was passed through the tumor for fourteen minutes. On the 29th of November, an eschar came away from the throat, and a brownish yellow fluid, mixed with shreds of dead cellular tissue, began to flow from the left nostril. On the 8th of December, respiration and deglutition were already easier. The treatment was continued every twenty days till October, 1871, when the tumor was so much diminished in size that only an insignificant "bony" (knöchern) prominence was to be seen on the posterior inferior wall of the pharynx.

FAUCES.


(2.) Depres. Retropharyngeal abscess; adenitis retropharyngealis. (Gaz. des Hopitaux, No. 32.) Schmidt's Jahrb.


GROWTHS.


(9.) Emele, Carl. (a) Hochgradige Stenose der untern Larynxhälfe; (b) Aphonie durch einen Kehlkopfpolypen bedingt. (Sitzungs-Bericht des Vereins der Aerzte in Steiermark, ix. p. 5, 1872.) Schmidt's Jahrb., June 23, 1873.


Dr. Mackenzie's article is a thorough and exhaustive reply to a paper by Mr. Arthur Durham in the current volume of the Medico-Chirurgical Transactions, "On Section of the Laryngeal Cartilages for the Removal of Morbid Growths." The summary of results, according to Mackenzie, reduced to percentages and placed in a tabular form, is as follows:

<table>
<thead>
<tr>
<th></th>
<th>Per ct. on 48 cases.</th>
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<tbody>
<tr>
<td>Complete success,*</td>
<td>14.58</td>
</tr>
<tr>
<td>Partial</td>
<td>22.91</td>
</tr>
<tr>
<td>Death</td>
<td>8.33</td>
</tr>
<tr>
<td>Severe dyspnœa, requiring use of canula</td>
<td>31.25</td>
</tr>
<tr>
<td>Severe dyspnœa, requiring fresh operation</td>
<td>8.33</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th></th>
<th>Per ct. on 45 cases.</th>
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<tbody>
<tr>
<td>Aphonia</td>
<td>40.0</td>
</tr>
<tr>
<td>Dysphonia</td>
<td>20.0</td>
</tr>
<tr>
<td>Modified voice</td>
<td>11.11</td>
</tr>
<tr>
<td>Not stated, but probably defective voice</td>
<td>6.66</td>
</tr>
</tbody>
</table>

Percentage based on 39 benign cases. Recurrence, or incomplete removal, 38.46

These results differ considerably from the percentages derived from 37 cases, which Mr. Durham introduced into his article, but space will not allow us to give Dr. Mackenzie's reasons for classifying many of the same cases differently (for Dr. M.'s list includes all those of Mr. Durham), but those who are interested are referred to his paper.

Dr. Mackenzie closes his paper by saying that, as a result of his own experience and from the investigations he has made into the subject, he ventures to submit the following propositions:

First, That the operation ought never to be performed for loss of voice alone.

* Complete success is understood to mean recovery of perfect voice and perfect respiration, and absence of recurrence of growth; partial success to mean recovery of one function, with injury to another, or temporary recovery of both functions, with subsequent recurrence of the growth.
Second, That in cases of cancer the operation is useless, except where the growth is very small and distinctly circumscribed.

Third, That the operation should be confined to those cases in which there is danger to life from suffocation or dysphagia, and then only to be performed after an experienced laryngoscopist has pronounced it impossible to remove the growth per vias naturales.

(10.) In our report published in this Journal, November, 1872, we gave full particulars of a case of naso-pharyngeal polypus cured by Dr. Bruns by means of electrolysis, after very long treatment. Dr. Bruns now communicates a case in which a very large naso-pharyngeal polypus was cured by him in eleven applications of the electric current. Dr. B. publishes this case now partly to show that the treatment by electrolysis need not always be so prolonged as in his first case, which may have deterred others from trying it. The patient was a man of thirty years of age, who had had symptoms of the growth for fourteen years, and had undergone several ineffectual operations for removal.

On examination, a fibrous polypus was found filling the vault of the pharynx, attached on the right, reaching as low as the base of the uvula, covering the openings of the nares posteriorly, but not projecting into them. Besides this, the right nostril was filled with a number of mucous polypi. The treatment was continued from the 12th of March to the 7th of April.

Before treatment by electrolysis was commenced, a part of the mucous polypi were removed from the right nostril to facilitate the introduction of one of the electrodes. The battery used for obtaining the constant current was Frommhold's, of thirty-two elements. As electrodes at both poles, strong zinc needles were used, one being introduced into the tumor through the nostril, and the other through the mouth. The needle which was introduced through the nostril was covered with an Eustachian catheter of hard rubber. Nine applications were made in this way, both needle electrodes being inserted into the tumor. The number of elements included was six. On each attempt to increase the strength of the current the patient expressed pain. The circuit was closed with only one element and the number gradually increased, and in the same manner the number of elements was gradually diminished, in order to diminish the shock of opening and closing as much as possible. The length of the sittings was, usually, from fifteen to twenty-five minutes. The two other applications were made with the positive electrode covered with sponge held in the hand or upon the sternum. In these, the number of elements included was from ten to twenty, and the length of the sitting was thirty minutes.

The three first sittings occurred from the 12th to the 14th of March. During the succeeding four days, there was a profuse discharge of pus and mucus, and small particles of the tumor. Rhinoscopic examination showed the inferior surface of the tumor ulcerated and gangrenous, besides a considerable shrinking of it. The next three sittings occurred from the 19th to the 21st of March. Then there was a suspension of the treatment for ten days, on account of an attack of angina. After this, rhinoscopic examination showed that the tumor had diminished in size by one half. The seventh to the eleventh sitting occurred from the 1st to the 7th of April. During this time, there was a rapid
diminution of the tumor in size. At the end of this time, treatment was suspended on account of the temporary absence of Dr. B., and the patient went home. On his return, four weeks after, none of the tumor remained, only a cicatrix at the place of insertion.

DIPHTHERIA AND CROUP.


(2.) LETZERICH. Kritische Bemerkungen über die verschiedenen Methoden zur Heilung der Diphtherie.

(3.) LETZERICH. Statistische Uebersicht der vom Jahre, 1868, an bis Ende 1872 in seinen verschiedenen Wohuozten behandelten Diphtheriekranken mit Angahe der Gestorbenen.


(7.) Rapp, jun. Brom inhalationen und Bepinselungen gegen Croup. (Bayer, Arztln Intell Bl. xx. 4) Schmidt’s Jahrb., June 23.


TRACHEOTOMY AND LARYNGOTOMY.


(2.) Tracheotomy performed by Galvano-caustic Apparatus. La France Médicale, Jan. 22, 1873. Practitioner, March, 1873.


(1.) Mr. Maunder reports three cases under this heading, which Vol. LXXXIX. No. 21A
occurred at the London Hospital. The first was one of naso-pharyngeal polypus, in which the breathing became so bad after an attempt at removal by the écraseur, that tracheotomy (the word used in the detailed report) was performed, and afterwards the growth was removed by slitting the soft palate, and perforating and cutting away sufficient of the hard to allow plenty of space. He then removed the growth by freely scraping bare all the bony surfaces from which it took its origin. The tumor was fibrous, and took its main origin from the basilar process of the occipital bone. Mr. Maunder remarked that these growths sprang from the periosteum, and, to remove them effectually, it was necessary to scrape off this completely. After the operation, the wound in the hard and soft palate was to be left open for some time, to examine the part readily, and to destroy, if necessary, with the galvanic cauterity, any fresh growth.

The second case was one of syphilitic disease of the pharynx, in a syphilitic man, aged 30, who had had for several days severe attacks of dyspnoea. The soft palate and uvula were found to be united to the base of the tongue, completely closing up the faucæ, with the exception of one small hole on the right side of the uvula, which admitted a No. 4 catheter. He said that he could eat meat after masticating it well, and seemed to make light of any great difficulty in swallowing. Laryngotomy was performed, and attempts were then regularly made to dilate the aperture above described by passing catheters and bougies, but the largest that could be passed was a No. 11 catheter. He could eat chop and vegetables without apparent difficulty. Mr. Maunder then enlarged the aperture by making an incision through it parallel with the uvula, and then forcibly dilating with his finger. The whole of the pharynx appeared to be filled up with diseased tissue. Five days afterwards, he had an attack of erysipelas of the face, which disappeared in twelve days. Mr. Maunder proposed still further to dilate the aperture in the pharynx by passing bougies at intervals, and, if necessary, by making incisions at right angles to the present opening.

The third case was one of inflammation of the floor of the mouth, tongue, pharynx, and left side of the neck, in a man of 21, who, on admission, attributed the swelling, redness, &c. of the above-named parts to a fight which he had had four days before. Two days after admission, the floor of the mouth was so much swollen that it reached about the level of the teeth, and was indented by them. The tongue so filled the mouth that the back of the mouth or faucæ could not be seen. He could swallow nothing. He breathed moderately well. An incision into the side of the neck gave vent to a little pus. Dressing forceps were introduced into the wound, and through the deep fascia and withdrawn open. On the following evening, his breathing became rather worse; and, at 2, A.M., his condition was so urgent that the house surgeon performed laryngotomy. The neck was so much swollen and so brawny that the thyroid cartilage could not be felt; and after cutting through thickened and infiltrated tissue for more than an inch, the larynx was found to be pushed very much to the right of the median line. The operation afforded instantaneous relief. The swelling of the mouth, tongue and neck had so subsided two days after this operation that the faucæ could readily be seen. In six days the tube was removed, and the patient was rapidly recovering.
(2.) This proceeding was originally introduced into practice by M. Amussat fils, in 1870, and was first performed on a boy, aged 13. Dr. Amussat passed a curved needle, carrying a double thread of platinum, through the integuments, so as to embrace at the same time about two centimetres of the trachea in the loop. After the removal of the needle, he seized one of the threads with two forceps in communication with an electric battery, and made the section of the tissues comprised in the loop without haemorrhage. The trachea being opened, the child coughed violently, and expelled the foreign body which was in the trachea, and for which the operation had been performed. A week subsequently, the wound was healed and the patient well.

The first number of the Archives Générales de Médecine for 1873 contains a series of eight operations by different operators, the particulars being furnished by M. Bourdon.

The operation as performed by M. Verneuil is as follows: There are three steps; the incision of the skin and of the soft parts; the incision into the trachea, and the introduction of the canula. 1st. After having marked with the nail the point which corresponds to the inferior border of the cricoid cartilage, the extremity of the blade of the instrument is pressed in and made to cut downwards to an extent corresponding to the diameter of the canula that is desired to be introduced, and the thickness of the soft parts covering the trachea. In the infant, the first incision, which is made with great rapidity, ought not to be made deeper than the skin, lest the trachea should be opened at the outset, and there be a risk of cauterizing it, if not of perforating the posterior wall. 2d. The trachea being exposed, it should be seen that the wound corresponds to the middle line, and the point of the knife should be made to penetrate into the first interspace between the cartilages and the necessary number of rings divided. 3d. The introduction of the canula is the last and easiest of all. This proceeding, it is obvious, differs considerably from that of M. Amussat, but in view of the difficulties that are presented by the adult when tracheotomy is required, M. Bourdon prefers the latter.

**Foreign Bodies.**


**Trachea.**

(1.) Plugging the Trachea in Operations on the Mouth and Throat. British Medical Journal, May 24, 1873.

(2.) Dr. Lamb reports a very interesting case of tracheo-oesophageal fistula; he has not been able to find any case recorded which was exactly like it, those cases which have been recorded being conjoined with other malformation of the oesophagus, as, for instance, cul de sac termination. The patient in his case was seven weeks old at death, March 31, 1873. From its birth, almost every attempt at nursing was attended with strangling, and sometimes with lividity of skin. The mother stated that, during a portion of the previous summer, she had been roughly treated by her husband while he was intoxicated; on several occasions he had violently choked her. Dr. Lamb saw the child for the first time about sixty hours before death. The most prominent symptom was flatulence, which was abundant and very paining; no vomiting; several thin greenish stools daily; it nursed but little. At the autopsy, a small granular deposit was found upon the mucous membrane of the trachea, just below the fistulous opening; it was suspected to be from a milk-clot, but was washed off and lost before its composition could be made out with certainty. The right lung was very dark and hepatized throughout; there was also slight pleuritic adhesion between the upper and middle lobes; no fluid or lymph in the cavity. The left lung was somewhat emphysematous in its upper lobe; the anterior lower margin, to the extent of about a square inch, was in the same condition as the right lung; there was neither fluid, lymph nor adhesion in the left pleura. Heart normal. Stomach and intestines distended with flatus. Liver, spleen and kidneys normal. Mesentery somewhat congested.

The head was not examined, except so far as to notice the condition of the palate, which was found normal. The hyoid bone, larynx and portions of the trachea and oesophagus were removed. In the median line, nearly half an inch below the lower border of the cricoid cartilage, was a fistulous communication between the tubes, having a longitudinal diameter of three lines and a transverse diameter of one line; the direction of the fistula was downwards and backwards, the opening in the oesophagus being at a lower level than that in the trachea; the edges were smooth and rounded, and the mucous membrane normal.

This specimen is now in the Army Medical Museum, No. 1161 of the medical section. Dr. Lamb concludes his paper with abstracts of the descriptions of the cul de sac pharynx or oesophagus, with or without fistulous communications with the air-passages, found in various museum catalogues. He calls attention to the similarity in the cause of death in several of the cases. The two cases from which were obtained specimens 456 and 457 of the Boston Society for Medical Improvement appear to have terminated fatally from pneumonia, as did the case reported by him.

Dr. L. also remarks that it seems to be quite possible for fluids to find their way into the trachea of an infant, even without any obstruction of the oesophagus. He quotes from the Lancet of May 10th, 1873, the case of a child aged one year, which was fed by the bottle, put to bed at six o'clock, and died at midnight with all the signs of intense dyspnoea. At the post-mortem examination (ten hours after death), the two lower lobes of the lungs were found quite softened,
grayish, having a smell of butter, and, in a word, having undergone the action of gastric juice. Altered milk was found in the trachea and bronchi. In this case, the milk contained in the stomach, which doubtless had been taken in excess, was vomited, and, on account of the horizontal posture, had penetrated into the air-passages. Dr. Panot drew the attention of his colleagues to the importance of the fact from a medico-legal point of view. He thinks that this occurrence must be rather frequent, as he has already witnessed two cases in his own sphere of observation."

**Esophagus.**


(2.) **Francis Mason.** Carcinoma Esophagi; Gastrotomy; Death. Lancet, Jan. 25th, 1873.


**Esophagotomy.**


**Instruments.**


(2.) **Welsch.** Ueber Anwendung von Hohlspiegeln als Kehlkopfspiegel. Deutsche Klinik, 14.

(3.) An improved Tonsillotome. (Said to have been suggested by Dr. J. S. Billings, U. S. A.) Phil. Medical Times, June 28, 1873. [Seems to be identical with the tonsillotome made by Mayer and Metzer, of London.]


**Laryngitis.**

(1.) **Gerhardt.** Chorditis vocalis inferior hypertrophica. Deutsches Archiv, Bd. ii. Heft. 7, p. 583.


[To be concluded.]

A Definition of Life.—The Medical and Surgical Reporter offers the following, which it states is "substantially, though not verbally, propounded by perhaps the profoundest living zoologist of this century, Cuvier, in his Animal Kingdom (vol. ii. p. 71):—Life is that condition of being in which the form is more essential than the matter."

Vol. Lxxxix. No. 21b
Reports of Medical Societies.

MIDDLESEX SOUTH DISTRICT MEDICAL SOCIETY. C. E. VAUGHAN, M.D., SEC.

The semi-annual meeting was held at North Cambridge, October 15th, 1873, Dr. Morrill Wyman presiding.

Dr. Wellington read an interesting paper upon "Peri-Uterine Hæmatoccele." A discussion followed upon a question raised by Dr. Hosmer, as to the origin of the acute pain in these cases.

Dr. Wyman said that, in extra-uterine fætation, the placenta is often attached to the peritoneum, which assumes the functions of the uterine surface.

Dr. Wellington cited Dr. Garland's case, reported in the Boston Medical and Surgical Journal of July last, where the placenta was probably planted on the outside of the uterus.

The President related the case of a drover, who was taken in the country with acute abdominal pain, and came to him on his way to Brighton. There was tenderness in the right iliac region, quick pulse, &c. He went to Brighton contrary to advice. The next day, very severe abdominal pain came on, and the man sank and died in eight or ten hours.

The autopsy showed a perforation of intestine, with purulent secretion enclosed and protected by adhesions. In the second attack, the adhesions had broken down, and there were evidences of beginning peritonitis. The system tolerated a small effusion, but succumbed to a more extensive one, which occurred rather from what we call shock, than from peritonitis.

Two months since, Dr. Hosmer was called to a patient in advanced stage of phthisis of the lungs. He found, besides the usual signs of phthisis, abnormal resonance at base of lung, and, at base and behind, strongly marked amphoric breathing. There was acute pain in the right side, and dyspnea, and, of course, rupture of the pleura.

Dr. Wyman spoke of a man in a late stage of pulmonary tuberculosis. He was sent for in haste. He found the chest resonant, and an undoubted perforation of the pleura. Not much pain. The patient began to improve from that time. The cough nearly disappeared, and the man went back to wood sawing, and lived at least a year after the occurrence.

Query. Was the tubercular affection, in accordance with the views of the later German school, local, or general and constitutional, according to the English school? It looks as if the former were the case.

Dr. Webber, of Cambridge, mentioned a recent case of labor, with the head presenting, preceded by an arm and the funis; pelvis roomy and os dilated. He succeeded in reducing the arm and funis, after placing the patient upon her hands and knees, with her head low.

Dr. Nichols related a case of rupture of the uterus in a tenth pregnancy. Pains began at noon, and were very severe until 4, P.M., when the rupture occurred. Seen at 5½; no apparent shock then; pulse good. A knuckle of intestine was first felt in the vagina; the feet were reached above the brim of the pelvis before the diagnosis was made. Dr. N. was struck by the case with which the parts of the
child could be made out through the abdominal walls. After delivery, a large rent was found some distance above the os. Patient sank slowly, and died twenty-three hours after the accident.

Dr. Warren, of Waltham, mentioned a case which occurred some years since. The pains were very severe, and the os dilated slowly. After a violent pain, the foetus was found partly expelled through a large rent just above the os; the placenta soon followed through the same aperture, and the woman made a good recovery. She was confined again, fourteen months later. On examination, a rent was found just above the os uteri, the cervix forming a band between the rent and the os, against which the head bore down strongly with each pain. The band was divided with scissors, and the child was born in half an hour. Woman again made a good recovery.

Dr. Warren said that, at the Isle of Shoals the past summer, he met several victims of autumnal catarrh. All said that they had not suffered as much this year as usual.

Dr. Wyman said that, in Cambridge, several were attacked later and more mildly than usual, but that one, at least, in Boston, had suffered more than usual. In some cases this year, quinine seemed to afford unusual relief. The disease is attributed by some to vegetation. Is the difference in different years owing to the greater abundance of some particular plants?

In answer to inquiries, the President spoke of the recent meeting of the British Medical Association, which he attended. The meeting, which lasted five days, was attended by 1200 or 1500 members. A large number of papers were read. The ether question was fully discussed. A variety of inhaling apparatus was exhibited, and as each inventor expressed perfect confidence in the safety of ether with his particular apparatus, the evidence in favor of ether was pretty strong.

While abroad, Dr. Wyman examined the London sewerage system, and gave a clear and interesting description of the same and its practical working, by which all the sewage is fully diluted and carried to a point upon the river, twelve miles below the city. He argued that some such system must at some future time be adopted here.

He referred also to the excellent paper by Dr. Bowditch, in the Second Report of the Massachusetts State Board of Health.


—The authoress gives, in this article, a résumé of what was to be found in the literature of the above disease in children, adding four cases obtained from Prof. Wyss. Of sixty-five recorded cases, the history of only thirty could be made use of, the data of the others being too imperfect. The following are given as the local causes:—

1. On the side of the vessels: (1) Compression of the smaller vessels from severe inflammatory processes in the lungs, or thrombosis caused by stagnation of the blood as a result of prolonged and severe inflammation (traumatic pneumonia), croupous and catarrhal pneumonia (after measles, &c).

2. On the side of the bronchi: (1) Absorption of putrid matter from the bronchi after noma, gangrene of the pharynx, larynx (gangrene after variola, scarlatina, measles, &c).
Bibliographical Notices.


In 1847, Dr. Naegele, Professor in the University at Heidelberg, published a work on Midwifery which has ever since been considered the standard text-book in Germany. The author died (July 5, 1851) soon after his work was published, but several later editions were printed under the careful supervision of Dr. Genser, Professor of Midwifery at Dresden. Though every effort was made by the editor to keep the work up to the advanced views held by the real workers on this subject in the profession, it became more and more evident that a complete revision of the work was necessary. To do this, and yet retain the original work of Naegele, became an impossibility, and a pressing need was felt all through Germany for some new treatise which should give all the results of the recent researches in the physiology and pathology of gestation and parturition, together with the newest methods of treatment for the various complications which are met with in the lying-in room.

With a view to meet this want, Dr. Schroeder, Professor of Midwifery and Director of the Lying-in Hospital connected with the University of Erlangen, published in 1870 his work, the title of which we have given above. The demand for the book was very great, and in 1871 a second edition was published, followed the next year by yet a third.

The work is eminently a practical one, and omits all long discussions on still unsettled points, either of theory or practice. One of the most valuable portions of the book, as a work of reference, is the historical account with which Dr. Schroeder prefaces every new subject, thus enabling the curious reader to trace the various theories or facts back to their several chronological starting points. We regret, however, to notice that there is an omission of all anatomical description of the pelvic bones or the generative organs, the author referring the reader to works of anatomy for all the information required on these points. This, it seems to us, is really a serious omission, since few books of anatomy even allude to the pelvic planes, angles and diameters which, though possessing but little practical value to anatomists, are yet of such vital importance to obstetricians. Space will not allow of any lengthy notice of the various contents of the book, but we cannot help alluding here to the excellent chapter on puerperal fever, under which term are included all those various disorders which are incident to the puerperal state, and which owe their origin to the absorption of decomposing organic matter. He does not consider that puerperal fever is, strictly speaking, contagious, inasmuch as the secretions from patients suffering from this disease have nothing specific in themselves, but owe their origin to organic matter.
which is in a state of putrefaction, and which will produce puerperal fever in women who have been confined, just as they will give rise to phlegmonous erysipelas in surgical patients. For such absorption to take place, an abraded surface is necessary, and such are to be found caused by the passage of the child through the cervix uteri and the mucous membrane of the vagina and vulva.

As a text-book, we doubt if the work will be considered satisfactory. The author has treated his subject in such a condensed manner that the student, who is beginning the study of obstetrics, is often at a loss to understand many statements which a fuller explanation would have rendered intelligible. As a work for collateral reading, however, or as a book of reference for the practising physician, this very conciseness renders it all the more valuable.

The work has been admirably translated into English by Dr. Charles H. Carter (London), and recently published in this country by D. Appleton & Co. (New York). The plates are well drawn, and the publishers may congratulate themselves on the way in which their share of the work has been done.


These clinical lectures of Trousseau are not new to the medical world. Fully recognizing their importance as an exposition of clinical medicine by one of the masters, the Sydenham Society long ago published a translation from the French, and this Sydenham Edition has had wide-spread and well-merited favor among the profession. There is no occasion now to review a work which has become classical in its own department of literature, and which is a monument of scientific learning, zeal and skill.

We are therefore concerned, in this connection, rather with the manner than with the subject-matter of this publication. To fill a supposed demand among American practitioners, the publishers have, in these volumes, reproduced all the clinical lectures of Trousseau as originally translated by Sir John Rose Cormack and Dr. Bazire. By the use of closer type and thinner paper, and by the omission of M. Bazire's notes, the English edition, in passing through the American press, is reduced from five volumes to two. The order of the lectures is made to conform, in the American re-print, to their sequence as delivered by their author at Hôtel Dieu; they therefore appear without any other special relationship, one to another, than that of time. The typography of the American publication is very good, but it will not bear comparison with the London imprint. An unusually full index adds very much to the value of the newer work.

Those who wish to possess, in the English language, the great work of Trousseau, may now, through the enterprise of the well-known medical book publishers of Philadelphia, have the choice between the five, well-printed, carefully annotated, comparatively expensive volumes of the Sydenham edition, and the two rather bulky, closely-printed, inexpensive volumes of the American publication. What, in the latter, is sacrificed in appearance, is gained in facility of reference, and in usefulness to the traditional "busy practitioner."
The announcement in the morning papers of November 11th that on the previous day the death of a lady by ether had occurred in the practice of Dr. Eastham, a dentist in this city, caused much excitement in professional circles. The death had taken place about noon, but very few, except those particularly interested, were aware of it till the next day. The coroner, Dr. Ainsworth, who was called in directly after the accident, formed a jury of physicians and apothecaries and ordered an autopsy. This was made the next morning by Dr. R. H. Fitz, Pathologist to the Massachusetts General Hospital, and on the same day the jury met, and, having viewed the body, adjourned till the 14th. Before our last number went to press, we had barely time to collect sufficient evidence to justify the statement which we made that the anaesthetic was either chloroform or a mixture of chloroform and ether. The latter proves to be the one used. The jury met again on the 14th, and having heard a part of the evidence reajourned till the evening of Wednesday the 19th. We shall refrain from comment on the evidence till the verdict is rendered, but present the following account of the proceedings which we condense from a complete stenographic report taken especially for us. On Nov. 14th, the first witness was Dr. Edson, who testified that he had twice attended Mrs. Crie, the deceased, during her confinements, but had never given her an anaesthetic, though she had desired it. This was owing to his disapproval of anaesthetics during labor, except in rare cases. He would have given one to the deceased as readily as to any patient in her case.

Dr. Fitz was next called, and read the following account of the autopsy:

Examination made twenty-one hours after death. Body preserved in ice; rigidity well marked; no discoloration of face or anterior portions of the body; skull cap and dura mater normal; longitudinal veins empty; moderate amount of blood in the veins of the arachnoid; nothing abnormal observed at the base of the brain. The bloodvessels in this region contained but little blood; cerebral substance firm, containing much less blood than usual, not particularly moist; absence of any anatomical changes; ventricles apparently normal. Pericardium healthy. Heart moderately contracted, unusually small and of usual color; aorta of less than the normal calibre, walls unusually thin and elastic; cavities of the heart contained dark fluid blood, of no unusual odor or color; right side of the heart contained more blood than the left; valves healthy, muscular substance apparently normal. Pleural cavities healthy, containing a small amount of reddish fluid. Lungs of
a bluish-red color, the posterior dependent portions quite dark; tissue contained air and a somewhat increased amount of blood; absence of any special degree of edema; in upper lobes of both lungs a rare, small, cheesy nodule. The larynx, trachea, bronchial tubes and the larger vessels at the root of the lungs free from changes. Spleen of normal size and firmness, the color dark blue. Kidneys unusually firm, capsule rather more adherent than usual; in sections, the organ was of a grayish slate color; bloodvessels, including the malpighian organs, unusually distinct from the presence of blood; tubular structure apparently healthy. Bladder healthy. Uterus and ovaries well developed; an old corpus luteum present; the lining membrane of the body of the uterus unusually injected, covered with a viscid, bloody fluid. Liver of normal size, dark color, containing rather more blood than usual, otherwise healthy; stomach and intestines presented no unusual appearances.

The anatomical examination gave no evidence of recent disease of any of the organs, or of chronic alterations sufficient to account for death; the fluid conditions of the blood, the diminished amount in the brain and the increased amount in the thoracic and abdominal organs were abnormal, and might have been the result of various causes; the diminished size of the heart and of the aorta were probably of congenital origin.

Question. Do you consider the absence of blood in the brain and cerebral cavities as abnormal? Answer. Yes, sir.

Q. Do you ever find the blood liquid so long after death, except where chloroform is used? A. Yes, sir; it is so in any case of death from asphyxia, in cases of poison from certain gases, and in cases of some very malignant forms of disease where decomposition is very rapid.

Q. I suppose a perfectly healthy woman would not be likely to have this sudden change take place in her without some cause similar to those you have mentioned? A. Very unlikely.

Dr. Eastham then testified that he graduated in medicine in 1841, had practised dentistry nearly all the time since, and had used anaesthetics from their introduction. The deceased had been his patient for twelve or fourteen years, during which he had on several occasions given her anaesthetics, chloroform, ether and gas, both severally and in combination. The deceased came to his office in the forenoon of the 10th, and there met Mrs. Sawyer, whose tooth he extracted after giving nitrous oxide. Mrs. Sawyer urged the deceased to take gas, but she insisted upon ether. He made a mixture of a little chloroform and ether.

Question. You made a mixture at the time? Answer. Yes, sir; I usually do that way.

Q. Please tell whether or not on this occasion you measured the quantity? A. No. I have been so familiar with it that I usually guess at the proportion. I never measure it. I always calculate to have more ether than chloroform.

Q. How much of this mixture did you make? A. Not more than an ounce or an ounce and a half.

Q. How did you administer it? A. I always administer it on a
sponge. I always drop the window at the top, so as to have fresh air. I pour on to this sponge (it is a hollow one about the bigness of my two hands) about a big teaspoonful, as near as I can judge.

Q. That would have been about a third of the mixture? A. No, not so much as that. I always begin gradually in applying it, first holding the sponge a little distance from the nose and then moving it nearer. As she began to breathe it, she says, "Give me enough this time, sure." This she repeated three times. I did not fully etherize her, nor did I intend to. After she had breathed two or three minutes, I said to her, "I am going to take this tooth out." She shook her head, as much as to say she was not ready, but I took hold of the tooth. She straightened back, groaned and screamed a little as if in pain. After I had pulled the tooth, she went back into a sort of hysterics, and became rigid, as if in spasms.

Q. At this point in the case, did you notice her lips, whether they were pale? A. Not much.

Q. Any change in her countenance? A. Not much.

Q. Did you notice her eyes? A. They were set wide open, like one in a spasm.

Q. You did not notice whether there was anything particular about the lips? A. No.

Q. Did you try the pulse at that time? A. No. I seized a napkin, moistened with water, and gave her a splash on the forehead. She seemed to revive, and I saw a flush of color come over her face. I set her up and took my ammonia water and applied that to her nose; then I spoke to Mrs. Sawyer. Mrs. Crie was sitting up in the chair, inclined a little forward at that time, and I was applying ammonia and water to the face. Mrs. Sawyer came in, and I asked her to loosen her dress, which she did. Then I saw a change again, back to paleness, and I said, "Call the other doctors." Dr. Osgood arrived first. We unloosed Mrs. Crie's corsets. Dr. Osgood rubbed her spine, and I sent the porter after another physician. We continued to rub her and apply very strong ammonia, and, finally, after Dr. Lamson came in, we removed her to the large room and, raising her arms, tried in every way to set up a respiration. We sent for a battery and used that. We worked over her till we all came to the conclusion that she was past all restoration.

Q. Can you tell us how long after she fell back into this spasm it was before respiration ceased? A. I should say about fifteen minutes.

Q. How long did the flush continue? A. It might have been two minutes.

Q. Then, as I understand, she fell back at once? A. As soon as the shade went back, I called for help. After administering these anæsthetics, there are two peculiar shades. There is the shade for faintness, and a shade from sickness at the stomach, and they are perfectly distinct.

Q. What was your opinion of this peculiar shade then? A. I thought it was a pallor from faintness.

Q. From the time she had this spasm and during the time you were administering the ammonia, was she sitting up in the chair? A. Yes, sir; but after the doctors came in they removed her to the waiting-room and laid her down.

Q. Was she breathing then? A. She was dead.
Q. How long had you begun the administration of ether before you extracted the tooth?  A. About a minute or a minute and a-half.

Q. During that time did you feel no pulse?  A. Never do that. Always watch the side of the head, the temporal artery.

Q. Do you think there is any danger of death occurring from giving ether alone?  A. I never had anything that appeared like it myself; nor in chloroform.

Q. You have not considered then that there was any danger?  A. No, I do not—that is, unless you administer it as they do in England. I should think they would kill every other one, by using a napkin as they do. But if chloroform be given as I give it on a sponge, with plenty of fresh air, I don’t consider it any more dangerous than ether; but a person must discriminate between individuals, whether he would give ether, or gas, or chloroform or anything, and these things must be learned by practice.

Q. You considered her to be a person lacking somewhat in vitality, and therefore you didn’t choose to put her fully under the influence of it (the anaesthetic)?  A. Yes, sir.

Q. Do you consider either of these anaesthetics more dangerous than the others?  A. I suppose chloroform would decompose blood quicker than ether.

Q. Do you know of any difference in chloroform?  A. I have never used but one kind, Squibb’s.

Q. In what way do you keep it?  A. Always in a dark closet and corked as tight as I can.

Q. Do you know of any difference in the quality of ether?  A. No, only from the seller’s opinion of it. I use Powers and Weightman’s concentrated.

Q. How much of this mixture did you generally make at a time?  A. Not more than a couple of ounces at once.

Q. What was the proportion of chloroform that you generally intended to have in?  A. Less than half, by volume.

Q. Did you keep that mixture a long time?  A. No, but I would most always add more ether if it had been standing a little while.

Q. Did you state that you made this mixture you administered to Mrs. Crie that day?  A. I had a little in a bottle and I added more to it, before I gave it to her. I had used it a week before.

Q. What is your reason for adding in chloroform to the ether?  A. Well, I think it is safer. Ether is a great stimulant, and when you have a little chloroform, the patients are not so noisy or excited as they are under pure ether. That is my reason, not that I feared one or the other.

Q. You would not hesitate to give any quantity of chloroform?  A. No, sir. If amputation was to be performed I had as soon use chloroform as ether.

Q. On the whole, which anaesthetic do you consider the most safe?  A. I think I should use ether for safety. Ether and chloroform combined, in my idea, is much better than either of them alone.

Q. Do you feel any anxiety when about to administer chloroform or ether or the mixture?  A. No.

We understand that at the next meeting, Dr. Wood will give the results of his analysis of the anaesthetic, that Mrs. Sawyer will be examined, and that expert testimony on the use of anaesthetics will be heard:
We have said that we should make no comments on the evidence while the investigation is in progress, but we may without indiscretion express our gratification at Dr. Ainsworth's course in giving the affair a thorough and public examination. This should be done in every case of death from anaesthesia.

**Inflammability of Ether.**—In a late number of the *British Medical Journal*, Mr. Hutchinson, writing upon ether, expresses an apprehension of danger from the inflammability of the vapor, and advises against its use after dark. Ether is employed at our hospitals indifferently by night and day—as it also is in midwifery. Its practical safety is doubtless partly owing to the fact that the air, cooled by its evaporation, establishes a downward current, so that a match placed a few inches above an ether sponge at the edge of a table will not ignite it; while below, the vapor readily takes fire.

**The Hospitals.**

**Massachusetts General Hospital.**

*(Saturday, November 15, 1873.)*

The following operations were performed:—Hare-lip, Ulcer of the Leg, Stone in the Bladder, Erectile Tumor of the Cheek, Mucous Cyst of Lip, In-growing Toe-nail, Tumor of the Back, Stricture of the Urethra with urinary extravasation and perineal abscess. On Monday, at the clinical lecture, Dr. Bigelow operated for Stricture of the Urethra.

The hare-lip, single, in a baby six months old, was complicated with cleft-palate. Dr. Bigelow operated by the method described in the last report.—Dr. Cabot amputated at the upper third of the leg in the case of a large and progressive ulcer of the leg, taking the flap from the calf. Grafting had been tried successfully by Dr. C., the ulcer having been reduced to the size of a cent., when he left the hospital. The tissue which resulted from the grafts, was stated by patient to have been the last to yield, when ulceration recurred. The ulcer nearly surrounded the leg.—The patient with stone was a man sixty years old. The usual symptoms had existed for a year, and in addition, during the past three months, he had suffered from frequent attacks of retention, relieved by the catheter. On examination under ether, the prostate was found to be enlarged, and the stone, after measurement by the lithotrite, one of unusual size. Dr. Bigelow remarked that the case, though unfavorable in any point of view, promised a better result from lithotomy than by lithotritry. He then performed the lateral operation. The prostate required free division in several directions, and subsequent dilatation by the forceps and fingers before the stone was extracted. The latter measured two and five-eighths inches in its longest diameter, by two inches in its shortest, and was one inch thick at the centre, diminishing slightly toward the circumference, being a flat ovoid, and weighing two ounces, three drachms and ten grains.—The tumor inside the cheek was erectile, and projected into the mouth at a point opposite the molar teeth. It was congenital and had been operated upon once before. Dr. Cabot strangulated it by ligature. Another growth of the same character existed upon the tongue.—Dr. Bigelow excised from the lip an inspissated mucoous cyst, and cauterized its cavity with nitrate of silver.—He then performed evulsion for a toe-nail ingrowing at both sides, and with the spherical rasp destroyed the matrix at both corners, remarking that a radical operation best economized the time of this class of patients.—A small painful tumor of the sacral region had existed sixteen months
within the patient's knowledge. It was adherent to the fascia over the gluteus maximus, and was removed by Dr. Cabot. Its gross appearance was that of a white fat containing a cyst. The inflammatory contents of the latter, together with its intimate connection with the bone, suggested its possible relation to an obliterated spina bifida.—A middle-aged man had had stricture after gonorrhea complicated with local injury from the recoil of a gun. A large urinary abscess occupied the perineum, and the patient was suffering from retention. Dr. Cabot evacuated the abscess and opened the urethra behind the stricture. The latter was then dilated by a Veillemier's instrument and an elastic catheter left in the bladder.—On Monday, Dr. Bigelow, during his clinical lecture, dilated with the same instrument a close, double stricture of long standing.

H. H. A. Beach, M.D.

Medical Miscellany.

It is proposed, in Italy, to erect a monument to Eustachius. Few anatomists have had their trumpet so much blown.

MODERN SURGERY.—Under this title, Mr. Erichsen has published his Introductory Lecture at University College.—Dublin Medical Press and Circular.

PROF. SIGMUND, of Vienna, has obtained a six months' furlough, and intends spending the winter in Italy. Prof. Zeissl is spoken of as likely to continue the class for the present.—British Medical Journal.

A petrified child has been exhumed at Cheyenne, Wyoming Territory, according to a writer in the Cincinnati Lancet and Observer. It had been dead for two years, and is described as absolutely perfect and statue like.

COMMENCEMENT at the Medical department of Dartmouth College occurred on November 5th. The address was delivered by Dr. A. H. Crosby, the graduating class numbering twelve.

CHLORAL IN CHOLERA.—Prof. Nepveu (Gazette Méd.) has found some service in using chloral in cases of cholera in doses of four grammes (sixty grains) in a cup of tea. He cites two or three cases as evidence of this. Opium, he says, acts slowly; chloral rapidly, and in fifteen or twenty minutes produces a sound sleep. When it is rejected by the mouth, it may be subcutaneously injected in very concentrated solutions.—The Doctor.

THE CHOLERA IN EUROPE.—There has been a slight increase in the number of cases in Vienna lately. From the 8th to the 15th of October, there were 72 cases; the mortality amounts to 72 per cent. There have been reported, thus far, in Berlin, 996 cases, of which 699 have proved fatal. There were 64 deaths in Havre from the 10th to the 17th of October. Sixteen deaths from cholera are reported during the week in the Paris hospital in the Progrès Médical.—British Medical Journal.

THIRTY CHILDREN POISONED.—The London Chemist and Druggist gives an account of a singular case of wholesale poisoning at Blackburn, England. At a coroner's inquest, held on account of the sudden death of a child three years old, it was proved that on the previous Wednesday a quantity of ashes had been carted from the extensive manufactory of Messrs. Jackson Brothers, George Street West. With these ashes there had been intermingled a quantity of arsenical soda, which had been supplied to the Messrs. Jackson for manufacturing purposes. The deceased and twenty-nine others had picked up the soda in question under the impression, from its crystallized appearance, that it was alum, and had sucked it. The deceased died from its effects, and all the others had been attacked with sudden illness, but only one other case proved to be fatal.—Boston Journal of Chemistry.
RUNNING A POISON TO GROUND.—Dr. Corfield, who acted as medical inspector of the suspected farms during the late epidemic of typhoid fever caused by the distribution of infected milk by the Dairy Reform Company, stated last week, in Birmingham, in reference to this epidemic, that “the cause of that epidemic is known with absolute certainty, the very channel by which the poison got into the dairy-well having been recently unearthed.” We believe that a direct communication has been traced, from the very spot at which the typhoid excreta were buried, into the well, and that the typhoid poison which infected the milk has been literally run to ground.—London Medical Record.

DISLOCATION OF VERTEBRE.—Dr. J. W. Brooks, of Chicago, reports the following interesting case in the Chicago Medical Journal for Nov., 1873:

Sept. 26th, 1872, I was requested hurriedly to visit F. B., a delicate, pale boy of 8 or 9 years. On arriving, I learned that on the previous evening, while playing at somersault in his father’s parlor, he had injured his neck. Examination revealed a sub-atllo axoid luxation. The chin was directed a little upward and to the right; the head was immobile; there was some numbness below the seat of injury, in all the members of the body; he was exceedingly nervous; there was no intense pain, but, as he expressed it, “it hurt all the time;” with a pale, damp, cool skin. With an assistant to steady and hold down the shoulders, and standing directly behind him (he being half recumbent), with a hand on either side of the cranium, and the fore-finger separated from the middle finger so that one forefinger of each hand would come before the articulation, and the middle finger of each hand behind, I proceeded to rotate carefully, and at the same time to make counter-extension; presently an audible click announced the return of the parts to their normal position. Convalescence was soon established.

NOTES AND QUERIES.

MEDICAL MULES—the offspring of the union whose “happy consummation” was so aptly described in the last Journal, p. 499! Fortunately for the community, mules cannot propagate. Pestle.

ERRATUM.—In issue of the Journal for Nov. 6, 1873, page 418, line 32, for “increased” read incurred.

MORTALITY IN MASSACHUSETTS.—Deaths in eighteen Cities and Towns for the week ending November 8, 1873.

Boston, 157—Charlestown, 15—Worcester, 18—Lowell, 13—Chelsea, 4—Cambridge, 16—Salem, 6—Lawrence, 18—Lynn, 14—Gloucester, 6—Fitchburg, 0—Trenton, 5—Newburyport, 7—Somerville, 8—Fall River, 29—Haverhill, 3—Holyoke, 4— Pittsfield, 4. Total, 333.


GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Nov. 15th, 128. Males, 71; females, 57. Accidental, 3—disease, 2—apoplexy, 2—congestion, 1—inflammation of the bowels, 1—disease of the bladder, 1—bronchitis, 3—inflammation of the brain, 3—disease of the brain, 6—cancer, 4—cholera infantum, 2—consumption, 29—convulsions, 2—delirium, 1—diarrhoea, 1—dropy, 2—disease of the brain, 1—dropsy, 1—inflammation of the lungs, 1—disease of the lungs, 5—laryngitis, 1—malaria, 1—measles, 1—noma, 1—old age, 6—pleurisy, 1—rheumatism, 1—sepsis, 1—septicaemia, 2—spina bifida, 1—tumor, 1—ulcers, 1.

Under 5 years of age, 42—between 5 and 20 years, 13—between 20 and 40 years, 26—between 40 and 60 years, 24—over 60 years, 23. Born in the United States, 87—Ireland, 32—other places, 9.
ON THE USE OF CATHETERS IN HYPERTROPHY OF THE PROSTATE.

By T. B. Curtis, M.D.

The object of this paper is to draw attention to certain practical points relating to the treatment to be used in cases of enlarged prostate, and particularly to set forth the value, in such cases, of the vulcanized India-rubber catheter. This instrument, which has long been in general use in Paris, is comparatively little used or known in Great Britain and in this country, and its many advantages are certainly underrated.

Hypertrophy of the prostate is a disease for which we may expect to be frequently called upon to give advice; Sir H. Thompson estimates that enlargement exists in some degree in one out of three individuals after 60 years of age, and that it produces marked symptoms in one out of seven or eight at that age and upwards. Fortunately, though we are able, as yet, to do nothing to cure, we can do much to relieve the sufferings and to prolong the life of those afflicted with this disease. The main feature of treatment in such cases is the use of catheterism to relieve retention of urine, complete or partial, with all the attendant suffering and disturbance to the system due to attacks of absolute retention, to retention with incontinence of urine by overflow, or to partial chronic retention with general poisoning by stagnating and decomposed urine. In many such cases, catheterism is our great resource; not only may it be indicated as an occasional measure when an attack of local congestion, induced by cold or by excess at table, has caused stoppage of micturition, with extremely distended bladder, but in many cases it may become necessary to resort to the constant use of the catheter, repeated several times daily, for months, or even years; with some patients, the normal function of micturition has to be superseded, during the remainder of life, by the artificial evacuation of the urine through a catheter, which the patient has to learn to introduce for himself when required. Then again, in other cases, when catheterism is found extremely difficult, through the existence of false passage or through any other cause, or when irritability of the bladder
occasions very frequent calls to evacuate its contents, it may be ad-
visable to tie in an instrument, either permanently or only at night,
with a view to permitting undisturbed rest.

It is easy to understand how important is the choice of the instru-
ment which is to be used so continuously, or in such unfavorable
circumstances as prevail in cases where the catheter has to be intro-
duced several times a day, perhaps by inexperienced hands, or else
left permanently in the urethra; and we can comprehend how desira-
ble it is to reduce to a minimum the risks of injury and of irrita-
tion.

Before entering upon a description of the instrument to which we
wish to call attention, we beg to be allowed to make a few brief
remarks upon the necessity which exists in all cases of retention,
whatever may appear to be the cause thereof, of making a methodi-
cal exploration of the urethra before attempting to pass a catheter.
In many cases, such an exploration may be quite superfluous, and
the first catheter used goes easily through the urethra into the blad-
der; on the other hand, cases continually occur where such is not
the case, and where the immediate use of a metallic or of a flexible,
straight and pointed instrument may be fraught with difficulty and
even danger. A preliminary exploration with a flexible bougie, tip-
ped with a good sized olive-shaped bulb (of No. 18 calibre, of the
French scale) is a rapidly performed and perfectly harmless opera-
tion, which may serve to reveal the existence of difficulties till then
unsuspected, such as latent stricture, accompanying the principal dis-
ease, false passage, deep lacune, &c.; it is certainly a generally ac-
cepted rule that diagnosis, as thorough as possible, should precede
measures of treatment, and in this particular case we hold that no
attempt to relieve retention should be entered upon without our pre-
viously investigating the presumable causes of the retention and the
condition of the parts through which the catheter is to pass. Dr.
Guyon, who has succeeded Civiale in the ward devoted to urinary
surgery at the Necker Hospital in Paris, is in the habit of laying
great stress upon this point, and he strongly recommends the use
of the olive-tipped bougie as the best instrument for such an explo-
ration as is here advised.

When we have determined the condition of the urethra and rec-
ognized that its calibre is sufficient, and that it offers no other ob-
struction than that caused by the enlarged prostate, we may safely
apply ourselves to the selection of the most serviceable catheter and
to its introduction. For this purpose, we have the choice of several
instruments:—1st, the silver catheter, of varying length and curve;
2d, the English gum catheter; 3d, the French gum catheter, cylindri-
cal or conical, with a bulbous tip; and, lastly, the vulcanized India-
rubber catheter. The first three kinds of catheters are well known
and require no description; the last seems to be quite unused, the
English gum catheter being generally considered to be the most use-
ful of all in hypertrophy of the prostate. (See Sir H. Thompson on Diseases of the Prostate; and J. W. S. Gouley on Diseases of the Urinary Organs.)

The vulcanized India-rubber instrument, however, seems, if we may judge by the practice now prevalent in the Paris hospitals, and particularly in the Civiale ward of the Necker Hospital, to be of all catheters the most suitable for cases where retention is due to loss of power of the bladder, or to increase of volume of the prostate, and for cases where difficulty of catheterism results from change of direction of the urethra rather than from narrowing of its calibre, or the existence of false passage. For stricture, a slender instrument, either flexible or metallic, is of course necessary; in cases of false passage, though a somewhat voluminous and flexible instrument like the India-rubber catheter will often glide past the orifice of the false passage without entering it, a silver instrument, which can be directed along the sound wall of the urethra, is often indispensable. But, apart from these cases, it is now the general practice in Paris, in cases of retention, to make first a fair trial of catheterism with a small rubber catheter preferably to any other instrument, and in the great majority of cases this first attempt proves successful.

The following, then, are the cases for which the use of this catheter is to be generally recommended:—1st. In retention caused by paralysis of the bladder accompanying paraplegia. 2d. In retention caused by acute prostatitis. 3d. In retention caused by hypertrophy of the prostate. Having thus briefly enumerated the cases for which the rubber catheter is most suitable, we will proceed to describe the instrument, and to state the reasons for which it appears preferable.

The rubber catheter, first manufactured by Galante, of Paris, was brought into use by Maisonneuve and Nelaton, soon followed by the generality of French surgeons. These catheters are of all sizes, from No. 12 of the French scale upwards, but by far the most useful are those comprised between Nos. 16 and 20; they are perfectly cylindrical, with a rounded end and an even, smooth surface. The instrument possesses the following qualities:—1st. It is perfectly supple, so much so that it can be easily wound round the finger. 2d. It is not acted upon by the urine or by the secretions of the mucous membrane; it neither acquires a phosphatic crust, as the gum catheters rapidly do when tied in, nor does its surface in any way become deteriorated, even by a prolonged sojourn in the urethra, whereas the black gum catheter is found, in a very few days, or even hours, to become so rough by disintegration of its coating as to necessitate removal. The perfect flexibility of the instrument is the cause of the facility with which it finds its way, of itself so to speak, into the bladder, requiring no guidance, but only a succession of short quick pushes, which propel it along the urethra; if any obstacle is encountered by the bluntly rounded tip, the pliable shaft, immediate-
ly bending, ceases to transmit the forward impulsion. It is, therefore, absolutely impossible to inflict an injury with this instrument, or to create a false passage, however awkwardly it may be handled. Nor does its use require any skill or practice; it is only necessary that the instrument, well oiled, should be held with the finger tips quite near the meatus, so as to send in only a half-inch or so of the shaft at each push; at the same time, the surgeon should keep the urethra well stretched, with the left hand, by firm traction upon the penis. It is a mistake to use this catheter with a stylet, as some authors recommend; this way of proceeding deprives the instrument of the valuable quality of pliability, which enables it to insinuate itself through a tortuous urethra, as it will often do in cases where catheterism with a silver instrument is so difficult as to baffle the patient efforts of a most skilful surgeon. Another advantage which accrues from the suppleness of this instrument is that it is of all catheters the one whose continued presence is most easily tolerated by the urethra; it causes much less discomfort to the patient than the gum catheter, and it is not so apt by its presence to set up prostatitis or cystitis, much less to occasion sloughing of the floor of the urethra at the sub-pubic bend; it is well known that the more rigid gum catheter sometimes, in this way, causes perforation of the wall of the urethra, thereby producing a very troublesome fistula, which necessitates a plastic operation of difficult performance and uncertain issue. The second quality of retaining an unimpaired surface, however long the instrument may be left in the urethra, is also a reason why it should be preferred for tying in.

The only defects of this catheter are its rather small bore and the difficulty sometimes experienced in fastening it so as to prevent its escaping from the urethra in consequence of its extreme flexibility. The smallness of the bore, due to the necessary thickness of the soft wall of the catheter, renders it apt to get easily clogged up by mucus, pus, clots, &c., but it can always be readily cleared by sending a little water through it with a syringe. To keep it securely tied in, several devices have been used; one consists in introducing into the distal half of the catheter a metallic tube four or five inches long, with a view to rendering this part of the instrument rigid, and so to prevent its escaping by worming itself out between the meatus and the means of attachment. A simpler mode of accomplishing this result was instituted by the author, and has succeeded extremely well. It consists in dipping the distal portion of the catheter, supported by a wire stylet, into collodion, which hardens in a few seconds, and leaves the part so treated quite stiff; two or three successive dips are necessary to give sufficient rigidity. This preparatory treatment gives a coating of glassy smoothness, which perfectly withstands the action of moisture and of bodily heat. We would like to add, in parenthesis, another analogous use of collodion: a fine bougie, of which the tip, bent into an angular or bayonet shape,
HYPERTROPHY OF THE PROSTATE.

is dipped an inch deep into collodion, acquires in a few minutes and after two or three dips, a rigid extremity of any curve that may appear desirable; this little expedient is sometimes very useful in dealing with stricture which is difficult to get through on account of the passage through it being tortuous or deviated from the axis of the urethra.

While upon the subject of tying in, we wish to take the opportunity of calling attention to a very ingenious and simple way of fastening catheters to the pubic hairs. The accompanying wood-cut shows the modus operandi; perhaps a few words of explanation may make the thing more easily understood. A string eighteen or twenty inches long is tied by its middle around the catheter at A, near the meatus. The two ends are knotted together at B, and then carried around the penis, one above the other below; they are then again knotted together, so as to form a loop loosely encircling the corona glandis, and carried together to a lock of pubic hair at D, close to the root of the penis. This means of attachment was devised not long ago by Sir Henry Thompson, who now uses it quite exclusively; on trial, it will be found to be a very neat, simple and efficient way of tying in a catheter.

45 Mt. Vernon Street, Boston, Oct. 17, 1873.

**Dressing of Stumps in France.**—At the scientific congress lately held in Lyons (medical section), a discussion took place on the subject of the dressing of stumps after amputation. Prof. Verneuil, of Paris, after reviewing the different dressings in use (open dressings, immediate union by sutures, antiseptic dressing of Lister, &c.), expressed a decided preference for the cotton-wool dressing of M. Guérin, as being that which enabled the surgeon most successfully to cope with the detestable sanitary conditions afforded by the Paris hospitals. The only fault he found with this dressing was the slowness with which granulation went on under the cotton wool, but the advantage of greater safety far outweighed this objection.

Dr. Ollier, of Lyons, said that he had also adopted the cotton-wool dressing, over which he is now in the habit of applying a roller steeped in soluble glass (silicate of potassa), to make the dressing less liable to become loose.—*Le Mouvement Médical*, Sept. 27th, 1873.
Progress in Medicine.

REPORT ON DISEASES OF THE THROAT.

By F. I. Knight, M.D.

[Concluded from p. 513.]

LARYNGOSCOPY.


(6.) Dr. Maxwell claims that the idea of examining the larynx by means of a mirror occurred to him before he had heard of Czermak's experiments, and before any notice of them was published in this country; and that he had an instrument constructed for this purpose. He has made no public mention of this before, in the first place, on account of the war, and afterwards he had waited until now for Tiemann & Co., who had made the instrument, to find a note of it upon their books.

PARASITIC DISEASES.


(2.) At the meeting of the Berlin Medical Society Jan. 29th, 1873, Herr B. Fränkel presented a case of benign mycosis of the pharynx. This was discovered accidentally in the beginning of the previous month in one of his pupils in the laryngoscopic course, and had existed since that time without any symptom of disease, except a slight chronic pharyngeal catarrh. Over the tonsils and follicles at the base of the tongue were to be seen separate white elevations, a line in height, and as large as the follicles under them. They did not give the impression of hard pellicles, but resembled rather formations of mould; when removed, they rapidly re-formed. When examined under the microscope, they were seen to consist of epithelial cells; many little round bodies (micrococci) sticking to them, and also in active motion in the surrounding fluid; and numerous little rods of
various lengths, also partly in motion. Herr F. remarked that without thorough examination such a case might be confounded with diphtheria.

**Paralysis and Cramp.**


(5.) A Case of Diphtheritic Paralysis (Headland) Lancet, Feb. 8, 1873.

(6.) Paralysis of left vocal cord; relief to dyspnea from tracheotomy; death. Autopsy—aneurism of arch of aorta. Teale. Lancet, Feb. 8, 1873.

(7.) Paralysis of both posterior crico-arytenoids; aneurism of arch of aorta; relief from tracheotomy. On autopsy, only the left vagus and recurrent found implicated in the walls of the aneurism. George Johnson. Lancet, Jan. 4, 1873.

(8.) Paralysis of vocal cords; tumor in the oesophagus, involving both recurrent laryngeal nerves. Le Fort. L’Union Médicale, April 10, 1873.


(11.) Frequently recurring spasm of the glottis dependent upon chronic hyperæmia of the larynx. A. H. Smith, M.D. N. Y. Med. Record, Aug. 15. [Relieved by four applications of perchloride of iron and glycerine (5i., 3i.).]


(1.) Dr. Jackson calls attention to the occasional nervous origin, so to speak, of syphilitic aphonia. He says it would be unsafe, when a patient who is manifestly the subject of syphilis, becomes aphonic, especially if he has any nervous symptoms, to conclude, without looking into that organ itself, that he had syphilitic disease of the larynx. It would be as unjustifiable as concluding, without ophthalmoscopic examination, that his blindness, if he were blind too, was owing to syphilitic changes in the eye itself. The fact is that in some cases of “syphilitic aphonia” there is no other abnormality discernible in the larynx than paralysis of one vocal cord. In these cases, the palsy may safely, in a person presenting outward signs of syphilis, be put down to syphilitic disease affecting the rootlets of the eighth nerve. Dr. Jackson is convinced that, in practice, aphonia from intra-cranial syphilis is not exceedingly uncommon. He refers to two cases corroborative in clinical and post-mortem appearances of the above statements, which cases were published in the London Hospital Report, vol. iv., 1868, pp. 314 and 318.

(12.) In our last report, we gave an abstract of an article by Schmidt, in which he gave an account of the appearances in the larynx of a cat,
after section of one recurrent laryngeal nerve. In the present monograph, he gives the results of further experiments, giving the results of section of various laryngeal nerve branches and muscles, singly and in combination, as seen in the laryngeal mirror. The series of experiments is quite complete, the notable exception being that of section of the spinal accessory, which it may be very hard or impossible to make in the cat before anastomosis. The only reference to the spinal accessory seems to be an interrogation mark after one of the conclusions quoted from the results of Navratil's experiments, i.e. that this nerve (the spinal accessory) "has no influence on the muscles of the vocal cords."

The experiments are preceded by an account of the anatomy and the normal laryngoscopic appearance of the cat's larynx.

After section of both recurrents, the following appearances were noted: on inspiration, the vocal cords approached each other so that they almost touched, and during forcible inspiration approached still nearer each other, and separated a little during expiration. Touching the vocal cords, ventricular bands and the epiglottis with the sound did not excite cough so quickly as in the normal condition. Respiration was much less frequent, deeper, and was for some hours after the operation accompanied by loud rales. The inspirations lasted much longer than the expirations. After a few hours, the respiration became quiet, and remained so unless the animal was disturbed, as by laryngoscopic examination. On the third day, the respiration was quiet, even during the examination. The laryngoscopic examination showed that the glottis was always open, and was somewhat wider than it was on the preceding day, even at the end of expiration.

In the account of the effects of section of one recurrent laryngeal nerve, an additional fact, besides those mentioned in our last report, and one of considerable importance, is given, i.e. that the sensibility seemed to be somewhat diminished on the affected side. After section of one superior laryngeal nerve, at the first glance, it was difficult to notice any variation from the normal condition, but careful observation showed clearly that the vocal cord of the side on which the section had been made, was a little longer than that of the opposite side, and that the vocal process of this side stood a little further outward and backward. The sensibility of the side on which the section was made was much diminished. In a second animal, the sensibility on the side of the operation was completely lost.

The voice in the first case immediately after the operation was strong, but hoarse and somewhat lower in pitch.

In the second case, it was much hoarser and deeper, and the animal, which before the operation had frequently mewed, in the two first days after the operation was remarkably quiet, but on the third day mewed again frequently. The variation in the form of the glottis is due to the paralysis of the left crico-thyroid muscle. The left crico-arytenoidus posticus obtains a little preponderance, and draws the left arytenoid cartilage outward a little more forcibly.

After section of both superior laryngeal nerves, laryngoscopic examination showed that the glottis had a symmetrical form and offered no noticeable departure from the normal condition. The changes described above, now having occurred on both sides, were so slight as to be unnoticeable. In one animal, the sensibility was much less than in the
normal condition, and in the other it was completely abolished. The voice was deeper and much hoarser than after section of one superior laryngeal nerve. Dr. Schmidt says that the function of approximating the lower edge of the thyroid cartilage to the upper border of the cri-
coid, and thereby increasing the tension of the cords, is often very erroneously ascribed to the crico-thyroid muscle.

According to others, the muscle draws the upper border of the cri-
coid cartilage upwards. If the crico-thyroid muscles, having been laid bare, are irritated by the electric current, the latter movement is in fact accomplished.

The function of the crico-thyroid muscles in phonation, therefore, according to this result, would be to maintain the anterior insertions of the vocal cords in a fixed position.

Division of the crico-thyroid muscle on one side gave a little different result from division of one superior laryngeal nerve, inasmuch as the vocal cord on that side presented a rectilinear edge, which was not the case when the nerve was divided. Farther experience can alone determine whether this was an individual peculiarity or whether the division of the superior laryngeal nerve in fact causes a little variation in the form of the glottis from that seen in division of the muscle simply.

Division of the crico-thyroid muscle and of the lateral crico-arytenoid muscle on one side produced the following laryngoscopic appearances. During ordinary respiration, the glottis had the same form as after division of the crico-thyroid alone.

On phonation, however, the arytenoid cartilage, with its vocal cord, did not move up to the median line on the side which had been op-
erated upon, but the other arytenoid cartilage and vocal cord crossed the median line, producing a bend in the line of the glottis with its convexity towards the side which had been operated upon. Moreover, the arytenoid cartilage of the affected side stood farther back-
ward and upward in consequence of the action of the posterior crico-
arytenoid. The voice was still deeper and hoarser than in paralysis of the crico-thyroid alone.

Division of both crico-thyroid and lateral crico-arytenoid muscles produced the following appearances. The glottis was of a perfectly symmetrical, regular, triangular form. The two sides of this triangle formed perfectly straight lines, so that no projection was noticed in the place of the vocal processes. The arytenoid cartilages were strongly rotated outward, and executed scarcely any respiratory movement.

On phonation, the arytenoid cartilages touched quite symmetri-
cally in the median line; they executed no movement backwards and upwards. Between the vocal cords and the processus vocales there re-
mained a large, triangular opening. The voice was replaced by a very hoarse, deep and rather weak noise, as was to be expected on account of the large opening remaining in the glottis, even during attempted pho-
nation. The sensibility of the vocal cord in the last three cases was completely normal. The last experiment shows that the thyreo-
arytenoidei muscles, which are here uninjured, bring the vocal cords considerably nearer the median line on attempted phonation. A com-
plete approximation, however, is impossible, because the conjoint ac-
tion of the lateral crico-arytenoid is wanting.

According to these experiments, then, we find the results (1) of
paralysis of one crico-thyroid muscle to be rotation of the arytenoid cartilage outward, and a rectilinear position of the edge of the vocal cord during ordinary inspiration; (2) of paralysis of both crico-thyroid muscles to be a symmetrical triangular glottis with rectilinear edges of the vocal cords and strong rotation of the arytenoid cartilages outward.

The principal results of paralysis of the lateral crico-arytenoid muscle are as follows: (1.) On one side, during ordinary respiration, no change; during phonation, a curve of the line of the glottis towards the affected side and two chinks, between the vocal cords and between the processus vocales. (2.) On both sides, during phonation, a large, triangular opening remains between the vocal cords and the processus vocales.

So we see that on section of the crico-thyroid muscle changes were found only on ordinary respiration, and, on section of the lateral crico-arytenoid, only on phonation.

Section of the arytenoideus transversus muscle.—Immediately after the section, the cartilaginous glottis was widened a little posteriorly.

The interstium inter-arytenoidenum became somewhat larger. During quiet respiration, the rima glottidis, between the posterior ends of the vocal cords, the processus vocales and anterior ends of the cartilaginous glottis, is somewhat narrower than normal. It strikes the eye so much the more, as the ary-glottis is somewhat broader. On intonation, the vocal cords and vocal processes touched each other, but a triangular opening remained between the arytenoid cartilages posteriorly. The voice was hoarse, deeper and weaker. Diplophonia (Gibb) at times existed.

Section of the thyreo-arytenoideus muscles and the recurrent branches going to them.—On intonation, the edges of the cords, instead of being straight, were concave, thus leaving a small, elliptical opening. The voice was weak, hoarse, and lower than usual.

Section of both crico-arytenoidei postici muscles.—On respiration, both vocal cords stood near the median line. The arytenoid cartilages were nearer each other than after section of both recurrent nerves. On inspiration, the vocal cords approached each other, and on expiration separated. After section of the second muscle, the dyspnea was so great that tracheotomy was performed. There was no voice, even when the tracheal opening was closed.

Dr. Schmidt also tried the application of morphia, and morphia and chloroform to the larynx of the cat without much effect upon its sensibility.

We have given above only a mere outline of a few of the experiments made by Dr. Schmidt. The monograph contains many others, and we recommend its perusal to those interested in the physiology of the larynx.

The German Schools of Medicine.—The number of students in the Vienna Medical Faculty diminishes sadly from year to year. Since Oppolzer’s and Skoda’s death, the diminution is very marked. Where one could with difficulty get within ear-shot in days gone by, on account of the number attending, the wards now, it is stated, are almost empty.—British Medical Journal.
BIBLIOGRAPHICAL NOTICES.

Bibliographical Notices.


This book is a useful addition to the literature on the above subject. The discussion of matters relating to the preservation of mental health necessarily runs in familiar channels. We therefore expect a chapter on the "Mental Influence of Physical Agents," and are prepared for others on "The Reciprocal Influence of Corporal and Mental Exercise," "Moral and Religious Influences," and even for the final one on "Marriage," though the title suggests for a moment the cheap books of "Advice, &c.," on that delicate but important subject.

In the first two chapters, tables are given showing the influence of the seasons, of sex, and of age on insanity and suicide. Also on the relations of ignorance to crime, of ignorance and crime to sex, of the seasons to crime, and of crime to insanity. These important relations must eventually come to be understood and acted upon by the public and by law makers, as well as by scientists and physicians, and all sincere attempts to elucidate them for the public benefit should be welcomed.

In these chapters, also, the effects of diet, drugs and stimulants are considered, with unnecessarily long quotations, it seems to us, from poets and novelists, of the wonderful powers of coffee, opium, tobacco and haschish. The author, however, is evidently an anti-tobacco and total abstinence advocate. We might also fairly suspect him of being a homœopathist, since, in speaking of the special effects of drugs, he mentions "the destructive mania produced by over doses of belladonna; the jealous furore of hyoscyamus; the religious melancholy of pulsatilla anemone; the obstinate self-will and combative humor of sulphur or chamomile; the ill humor and passionate irritability of nux strychnos; the moral perversion of mercury; the dejected and sorrowful humor of ignatia, lycopodium and a few other drugs; the lascivious influences of Peruvian bark," &c. &c.

In the third chapter, the author deprecates the tendency to excessive physical culture. To develop the body at the expense of the mind is, he thinks, a grave error, and tends to put back the moral progress of the age. The will, he very justly argues, is impotent to reform defects of character, founded on organic and constitutional bias, either congenital or acquired. He quotes Emerson and other writers in support of the opinion that physical and intellectual culture, at the exclusion of the moral element, is the mistake of the age. Many readers will deny, however, that the natural type and outgrowth of such a culture is seen in the learned murderer, Ruloff! This entirely abnormal character was morally deficient to the verge of, if not to the extent of, actual insanity.

Many instances and tabulated statistics are given to show that a high degree of mental culture is favorable to long life. Also a table showing the "Progressive Decrease in the Sum of Vitality, of three Classes of Inhabitants, of Preston, England," including the gentry, tradesmen and operatives. The numbers in a hundred remaining alive at the end of the first year, are, respectively, 90·8, 79·6 and 68·2.
This order is maintained throughout, and the proportions become more and more striking. At eighty years, for instance, we have 8, 4·5 and 2·1. Allowance must, of course, be made for the inferior sanitary condition of the poorer classes. He puts ("according to statistics recently published in this country") the average duration of the lives of philosophers and physicians at 68. The clergy come next, and lawyers next, while the average age of farmers is but 50. In examining the mortality list of members of the Massachusetts Medical Society from 1781 to 1870, we find the average age of physicians in this State falls short of the above average. In 850 deaths, the average was 59 years.

Our author seems rather in advance of the latest scientific investigators, since he states positively that the moral faculties in a well balanced mind comprise about one fourth of the cerebrum. Also, in speaking of Ruloff, he asserts that dissection of his brain demonstrated inordinate strength and activity of both the passions and the intellect, while the conscience and the moral brain were singularly defective. He gives no authority for these assumed localizations, and it is to be feared they rest on no better than phrenological evidence, which, to the scientific mind is, to say the least, very unsatisfactory and inconclusive.

After speaking generally of the impulses and emotions, and of various forms of religious belief, he mentions in detail the following moral agents and their effects, viz., faith, cheerfulness, temperance, music, art, conversation, literature, love, friendship, society, industry, poverty and prayer, devoting a final chapter to that most efficient moral agent, marriage. It will be seen that the author's method, as well as his matter, is at times unscientific and unsatisfactory. There are, however, many interesting facts, figures, arguments and quotations, which make the book readable and useful, especially as it is in a line of investigation till of late too much neglected.

T. W. F.

BOOKS AND PAMPHLETS RECEIVED.


Description of New Instruments for making Examinations of the Cavities of the Nose, Throat and Ear. By Thos. F. Rumbold, M.D. (Reprinted from the St. Louis Medical Archives and St. Louis Medical and Surgical Journal.) 1873. Pp. 16.


North End Mission Magazine for October.
The Coroner's jury in the case of Mrs. Crie met on Nov. 19th and heard the remainder of the evidence. Mrs. Lee, a friend of the deceased, testified that, two days before her death, the latter appeared in excellent health, that she had never known her to complain of trouble in her heart, that she dressed loosely, and was not then nursing her child. Mrs. Sawyer was then called. She repeated very closely Dr. Eastham's account of the events preceding the inhalation, and of such efforts at resuscitation as she witnessed. She thought the deceased was laced very tightly. She advised her to take gas, because she had herself recovered from it very nicely, and previously had taken ether and felt it for two weeks.

Question. Are you sure it was ether? Answer. It was ether and chloroform.

Q. Did Mrs. Crie insist on taking ether, or did she say something about chloroform? A. She said ether.

Dr. G. H. B. Flagg.

Dr. G. H. B. Flagg is a dentist in Boston. He was in Dr. Eastham's room while Mrs. Crie was dying. He felt her pulse; it was very slow, not more than twenty-five, and feeble, and to him it was apparent that she could not live.

Q. Have you been in the habit of giving chloroform yourself? A. No, sir.

Q. Either purely or combined with ether? A. Four times in the last ten years I have given a mixture of chloroform and ether.

Dr. Flagg said that he preferred not to give chloroform, but did not know enough about it to say it was dangerous.

Q. Were you in the habit of giving gas to Dr. Eastham's patients? A. I usually assisted him.

Q. And he has given ether to your patients? A. Four times, sir, during the last ten years.

Q. Then when you stated you had administered chloroform, you meant it had been administered by Dr. Eastham? A. Yes, sir.

Q. You knew it was the mixture of chloroform and ether? A. Yes, sir.

Dr. H. D. Osgood.

Q. You are a practising dentist? A. Yes, sir.

Q. You were called into Dr. Eastham's office between eleven and twelve o'clock on Monday, Nov. 10th? A. Yes, sir.

Q. Will you state to the jury what you saw there? A. Mrs. Sawyer came into my room at that time and said that Dr. Eastham wanted to see me, for a lady who had taken ether had fainted.
Q. Did she mean ether, or chloroform, or a mixture? A. I don't know; she said ether. I went into his office, and saw a lady in the operating chair.

Q. What was her position? A. She was inclined forwards. She seemed very low. I examined her pulse, and could not detect any at all.

Q. Did you detect any respiration? A. No, sir, I did not. Examining her clothing, I found she had on corsets, and that they were quite tightly laced. We applied ammonia and water, and Dr. Eastham slapped her face vigorously with a towel.

Q. Did she at all revive in any way? A. Not to my knowledge.

Q. You could not feel any pulse or detect respiration. Do you think she was dead? A. It was my opinion that she was dead.

Q. That was when you first went in, soon after Mrs. Sawyer called you? A. Yes, sir.

Q. Dr. Osgrad, you have been for a long time practising dentistry? A. Yes, sir.

Q. You have been in the habit of giving ether? A. Yes, sir.

Q. Have you been in the habit of giving ether and chloroform? A. Yes, sir.

Q. Do you consider, from the experience you have had in the use of it, that chloroform is safe, either alone or combined with ether or alcohol? A. I consider it so, or I should not have used it.

Q. Do you give it alone? A. Yes, sir, I have done so many times.

Q. Have you given the mixture? A. Yes, sir.

Q. In what proportions? A. One-third chloroform and two-thirds ether.

Q. Has Dr. Eastham given it for you? A. Yes, sir.

Q. You always knew it was ether and chloroform? A. Yes, sir.

Q. Did the patient know it? A. I could not say.

Q. What did they call for? A. I don't know, sir.

Q. They must have required an anaesthetic or you would not have given it. A. True.

Q. Did they call it an anaesthetic? A. No, sir.

Q. What did they ask for? A. I cannot tell, sir. I think quite likely they called for ether.

Q. Did they ever call for chloroform? A. Yes, sir, very often.

Q. When they called for chloroform, did you give them the mixture? A. I may not have given them either, but the gas instead. We never give ether or chloroform when we can get them to inhale gas instead. Sometimes, one demands either ether or chloroform, and then we give it to him.

Q. You give the mixture when they call for the ether or chloroform? A. Yes, sir.

Q. Have you ever seen any ill effects from ether and chloroform mixed? A. No, sir.

Q. The uniform strength has been about one-third chloroform? A. Yes, sir.

Q. By weight? A. No, sir, by bulk. I never considered it a very great matter whether one-third, a little more or a little less.

Q. Do you give anaesthetics now as much as you did ten years ago? A. Do you mean ether, and chloroform and nitrous oxide?

Q. Yes. A. I do a great deal more.
Q. Is the use of ether and chloroform on the increase or decrease with you?  A. I don't give as much as I formerly did.

Dr. E. S. Wood.

Dr. E. S. Wood, acting professor of chemistry at the Harvard Medical School, gave the following account of his analysis.

I received a small, glass-stoppered vial containing liquid; a portion of a liver, a spleen and kidney, and the contents of a stomach. The vial contained 1.39 ounces. The odor of the liquid resembled that of ether mixed with chloroform, the odor of chloroform being strongly perceptible. The specific gravity of the fluid = 1.043, which corresponds to that of a mixture of six parts by bulk of ether with four of chloroform, if allowance be made for an increase in the density of the two when mixed. A mixture of sixty per cent. of ether with forty of chloroform had a specific gravity of exactly 1.043 at 68 degrees Fahr., and had lost about 1/50 of its volume. A mixture of sixty parts ether with forty chloroform will not occupy one hundred parts by volume, but only 98.945 parts, and its specific gravity, instead of being 1.032, as if no condensation took place, will be 1.043. The mixture contained no hydrochloric or acetic acids and no chlorine, showing that both the ether and chloroform were free from any deleterious impurity, a small amount of alcohol only existing as an impurity. The liquid answered the tests both for chloroform and ether. By bulk, it was sixty per cent. ether and forty per cent. chloroform, and by weight 58.14 per cent. ether and 41.86 per cent. chloroform. The blood had no odor, either of chloroform or ether, and neither of these liquids was detected by analysis; and the same is true of the organs, which were carefully analyzed.

Q. You are somewhat familiar with statistics of anæsthetics, are you not?  A. I have seen some statistics.

Q. Have you it in your power to tell the jury the statistics relative to the mortality occasioned by the use of ether or chloroform, or a mixture of the two?  A. The only statistics which I have seen were some which were published in Chicago in 1870, and these were reprinted, or rather copied into the last annual report on the practice of pharmacy and toxicology.

Q. Will you please state what these were?  A. Roughly, the proportion of deaths to cases in ether was one in twenty-five thousand; to cases in chloroform, one in twenty-five hundred; to cases of a mixture of chloroform and ether, about one in five thousand.

Q. If you had been handed all the articles, without the chloroform and ether, could you have given any opinion as to the cause of the person's death?  A. No, sir.

Q. Did I understand you that there were no odors in the blood?  A. Yes, sir. The blood was strongly alkaline.

Q. What do you think is the smallest amount of chloroform that would cause death?  A. The smallest reported, as I remember, was from fifteen to twenty drops by inhalation; one drachm taken by the mouth into the stomach, and one drachm of a mixture containing one part chloroform to four of ether by bulk, that is, one teaspoonful.

Q. You mean that dose has caused death?  A. Yes, sir, immediately, that is within a few minutes.

Q. Is there any record of the presence of any poison in the blood of
any of these cases reported? A. It has sometimes, but rarely, been possible to detect chloroform in the blood. The analyses after death from ether, in case of animals, have been unsatisfactory, and in case of death from chloroform it is only sometimes possible to detect it.

Q. Have you any idea of the cause of absence of coagulation in the blood? A. No, sir. The spectroscopic examination of the blood gave a normal appearance.

DR. HENRY J. BIGELOW.

Q. You have heard the testimony in this case; you have it under oath that this lady had breathed from two to four drachms of a mixture of ether and chloroform such as you have heard stated; now what is your opinion as to the cause of death? A. She died of breathing chloroform; there is no question about it.

Q. You have no doubt that the chloroform which was used in that mixture was the cause of death? A. It was the cause of death.

Q. She took about two-fifths chloroform and three-fifths ether according to bulk; would that amount of ether be sufficient to cause death? A. It would not possibly cause death.

Q. Would it be safe for a child six years old? A. I cannot conceive that it would effect it deleteriously.

Q. Two-fifths chloroform? A. Might kill an adult.

Q. Have you ever in your experience known of any deaths by chloroform? A. I have been present at but one.

Q. You are familiar with the literature on that subject. From your reading, how many cases are you prepared to answer for? A. I am wholly unable to give a number. They are numbered by hundreds, and it is proved that many are not reported.

Q. Have you ever known of a case of death from ether properly administered? A. No, sir.

Q. Do you, from your own knowledge or by reading, believe there ever was a case of death from ether properly administered? A. There is a fallacy in the proposition put in that way. Ether is a powerful agent, and if a man is feeble or dying, it would contribute to his death like a dose of opium or anything else that has weight and force and power in it. But that is not the real question as between ether and chloroform, for both of them are powerful agents. The real question is, has chloroform, besides this narcotic power, some very poisonous influence which acts upon the system and in which it differs from ether; has chloroform such a power, has ether, or have both? I answer, chloroform has and ether has not; chloroform kills suddenly and ether cannot.

DR. S. CABOT.

Q. As a result of your experience, do you think it dangerous in any way to give ether by inhalation? A. I don't, sir, with, of course, proper precautions.

Q. From your knowledge and personal experience, do you consider it safe to give chloroform? A. No, sir, I do not.

Q. Even properly; with all precautions possible to be taken? A. I don't think it safe.

Q. Judging from your knowledge, what do you think caused the death of Mrs. Crie? A. Inhalation of chloroform.

Q. Do you think that two-fifths of a tablespoonful of chloroform, as taken by bulk, would be sufficient to produce that effect? A. I do, sir.
Q. In your judgment, can a person in ordinary good health take ether enough to produce death, say in the course of ten or fifteen minutes? A. No, sir.

Drs. Henry G. Clark, George H. Gay and R. M. Hodges testified to the same effect. On the next evening, the jury met again, and presented the following verdict:—

That Mary F. Crie came to her death on Monday, the 10th day of November, 1873, between eleven A.M. and one P.M., in the office of Dr. Charles Eastham, a dentist, No. 25 Tremont street, Boston, and that her death was caused by the inhalation of chloroform administered in a mixture of chloroform and ether by the said Dr. Eastham. The jury use this opportunity to caution the public against the inhalation of so dangerous an agent as chloroform for the production of insensibility to pain. In the opinion of the jury the inhalation of sulphuric ether is safe, while the inhalation of chloroform, either alone or mixed, is always attended with danger.

It was signed by Ezra Palmer, M.D., John A. Lamson, M.D., Geo. Fabyan, M.D., George Lotz, M.D., Thomas Restieaux and Thomas Deliver.

This case has attracted much attention, not only from the attempt made just after the accident to pass the death off as one from ether, but also, when it became evident that it was due to chloroform, from anxiety to see what would be the conclusions of a Boston jury. The verdict is all that could be desired, as it expresses emphatically the feeling of the profession, and we do not find fault that Dr. Eastham was spared the well-deserved censure which he must have expected. The misfortunes of the past should be remembered only as warnings for the future. The use of chloroform is least justifiable where ether is best known; there is less excuse for its use in America than in Europe, and least of all in this city. After this verdict, nothing but very exceptional circumstances will warrant its administration. It appears in the evidence that several dentists are in the habit of giving whichever anaesthetic they see fit, regardless of the request of the patient. We hope that this custom is not general, and would advise any who may persist in it not to be too sure that after another patient, who shall have asked for ether, has been killed by chloroform, the verdict may not contain, besides other disagreeable words, the adjective "criminal."

The recent importation of cholera into several of the ports of England has given conclusive evidence of the impossibility, in these days of rapid transit from one country to another, that quarantine regulations can accomplish the ends for which they were established. The speed of journeying from remote parts of Europe to England outruns the ordinary period of incubation of many of the infectious diseases, so that an individual may have contracted disease in some distant lo-
cality and yet give no evidence of his sickness till several days after his arrival in port. Of late, persons from Hamburg and Havre have entered England, as subsequent events proved, with the poison of cholera already received into their system, yet they travelled from one part of the island to another before the disease declared itself.

One of the medical journals (the Lancel), in commenting on the above cases, states that no system of quarantine against Continental ports could be maintained in England, with any prospect of benefit, which did not provide for the entire cessation of all traffic for an indefinite period. "That any form of medical inspection of ships from infected ports can ever be carried out which will detect and stop cases of diarrhoea like that from which the sailor suffered who travelled from Havre to Liverpool by way of Southampton, is in the highest degree improbable. Even if it were possible to attempt such a restriction of commerce as would be needed to compass the end, the restriction would be futile, as one of its first consequences would be the development of a system of smuggling which would render the quarantine of no effect. In dealing with the importation of cholera by sea, our efforts must be limited, for all practical purposes, to stopping manifest cases of the disease."

In fact, the British authorities are finding just such obstacles in the way of the utility of quarantines as were pointed out by this Journal more than a year ago. We would call attention to articles on pages 200 and 221 of the issues of this Journal for September 19 and 26, 1872, concerning this subject.

We have been shown a private letter written by Dr. Bennett to one of his many medical friends here, in which he states it to be his intention to take up his future residence in Nice. Dr. Bennett has been induced to take this step by the present condition of his health which, we are pained to say, compels his removal to a warmer climate; and although he has not resigned his professorship in Edinburgh, his absence must necessarily involve the temporary surrender of his professional instruction and practice there. But what may be a misfortune to Dr. Bennett and a source of sincere sorrow and regret to the profession and a most extensive circle of patients and friends at home, will prove a real blessing to the multitudes of his travelling countrymen, as well as to the great tide of American invalids which every winter finds temporary rest in the most beautiful city of the south of France.

While we cordially sympathize, therefore, with our professional brother in his enforced exile, we congratulate the citizens of Nice upon this distinguished addition to the medical corps of their city.
Messrs. Editors.—The history of yellow fever in the Southern and Western States, during the present year, is worthy of careful consideration, and I propose to present to your Journal a few notes, which may possibly prove of interest to the future medical historian.

The yellow fever of 1873 has not confined its attacks to the sea-coast, but has committed its ravages at various points in the interior, as at Shreveport, Louisiana; Memphis, Tennessee; Marshall and Calvert, Texas; Montgomery and Pollard, Alabama; and Bainbridge, Georgia. The extension of the disease along the lines of travel has spread alarm and dismay, and brought prominently to the attention of cities and States the question of efficient quarantine upon lines of railroad as well as upon the great water courses.

We will present, in the first place,

Notes upon the Yellow Fever of 1873, in New Orleans.

Up to the week ending Nov. 2, 1873, two hundred deaths from yellow fever have been officially recorded by the Board of Health of New Orleans.

The following official memoranda, from the Mortuary Records of New Orleans, present the total mortality of the city from all causes, the total number of cases of yellow fever, and the total deaths from yellow fever and other fevers, recorded chiefly as malarial fevers, from the week ending July 6th to the week ending November 2d.

Memoranda from Mortuary Records of New Orleans, 1873.

<table>
<thead>
<tr>
<th>For the week ending</th>
<th>Total Mortality, all causes.</th>
<th>Total Mortality, fevers other than yellow fever.</th>
<th>Total deaths; yellow fever.</th>
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<tr>
<td>July 6th</td>
<td>163</td>
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<td>July 13th</td>
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<td>1</td>
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<td>128</td>
<td>13</td>
<td>6</td>
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<tr>
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<tr>
<td>Total</td>
<td>2608</td>
<td>332</td>
<td>368</td>
</tr>
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</table>

The first case of yellow fever, officially reported, was traced to the bark Valparaiso, which arrived at Quarantine from Havana, June 16th, and, after remaining the usual period (during which time carbolic acid was poured into the pumps and freely scattered below in the forecastle, and the vessel twice fumigated with chlorine), she was permitted to proceed up the Mississippi River to New Orleans. As the ship was in ballast, it is said to have been easy to scatter the carbolic acid freely and thoroughly. Ventilation in the body of the ship is said to have been promoted by the measures instituted.
On the 4th of July, the mate of the Valparaíso (at that time lying at the head of Third St.) was taken sick with yellow fever, and was conveyed to the house of a friend on Moreau Street, near Spain, in the Third district, where he died on the 8th, having had black vomit prior to death.

The Valparaíso arrived in this port on the 26th of June; the mate of the vessel, who was a native of Spain, aged 18, and unacclimated, was therefore seized with yellow fever on the ninth day after arriving in New Orleans, and on the twentieth day after leaving the port of Havana.

The bed, bedding and clothing of this patient, after his death, were burned, and the house was fumigated with carbolic acid.

After the patient had left the Valparaíso, her cabin was disinfected with carbolic acid atomized, and her hold fumigated with chlorine.

The second case (H. W., aged 28, native of Alabama) was taken sick on board the dredge boat Essayons, at the mouth of the Mississippi River, on the 10th of July, and died on the 15th, at the Charity Hospital. This patient had been residing in New Orleans, and on the 8th of July went to the Passes, and worked on the United States dredge boat; he was therefore taken sick only two days after commencing work, and left the city four days after the first case occurred on the Valparaíso.

The third case was Edward H., mate on the steamer Belle Lee, taken sick July 12th; died on the 20th. The steamer Belle Lee lay three hundred yards from the Valparaíso, undergoing repairs. It is not known that this patient had ever visited the Valparaíso, or had any connection with her crew.

The fourth case occurred in my private practice. The following is an outline of this interesting case.

Mrs. W., residing at 230 Common Street, has lived in New Orleans eighteen months; large, well-developed woman, with clear complexion and high color in health. Mrs. W. called at my office, July 21st, stating that she had just passed through the menstrual period, which had been protracted for ten days, was very profuse, and confined her to bed. She complained of great weakness, "heaviness" of feeling, vertigo and pain in the head, back and limbs, symptoms which appeared to be attributable, at least in part, to the hemorrhage, as I have attended her upon previous occasions when suffering from analogous symptoms, resulting from profuse hemorrhage in menstruation.

July 22d, 1 P.M.—I was called to Mrs. W., and found her suffering with slight febrile excitement; pulse 90, full and strong; face flushed, pain in head, back and limbs.

July 23d, 9 A.M.—Face greatly flushed and of scarlet hue; capillaries of the extremities and face and surface generally, congested; patient greatly agitated, and alarmed; says that she has yellow fever, and will surely die. It was difficult, if not impossible, to calm her fears. Skin warm, but bathed in profuse perspiration; pulse 108. full and strong; great pain in back and head. 3.30 P.M.—Pulse 110; temperature 103.50°; urine abundant, light yellow, slightly tinted, from presence of vesical and vaginal mucus; a trace of albumen. Menstrual flow returned for an hour or two during the morning, but ceased again; tongue red at tip and edges, furred in centre.

July 24th, 9 A.M.—Pulse 118; respiration 30; temperature 106.8° F.; skin hot and dry. The fever rose in the evening; patient talked and muttered in her sleep, and frequently awoke suddenly with a start and cry; moans and sighs with every breath; is greatly agitated and alarmed. Pain in head, back and limbs intense; nausea constant and distressing, but no vomiting; heavy, disagreeable odor emitted by the body, as in yellow fever; an eruption has appeared upon the forehead; the surface of the face, trunk and extremities is as highly injected, and as red as in scarlet fever or measles, but the brilliant redness is more uniformly diffused over the surface than in either of these diseases. Tongue coated in centre, with yellow fur, and red at tip and edges, swollen, moist and soft, with margins indented by the teeth.

July 25th, 10 A.M.—Condition unchanged; pulse 118, full and strong; respiration 36; temperature 108° F. The delirium and restlessness of the
patient prevented the thermometer being held firmly in the axilla; the actual temperature was therefore somewhat above 108°, and probably reached from 110° to 113° in the cavities of the heart. Two hours after the preceding observation, I was summoned to the bed-side of the patient, and found her in articulo mortis; pupils contracted; spasmodic respiration, with death-rattle in throat. I was informed that she had started suddenly in a disturbed sleep, made small ineffectual efforts to vomit, and passed immediately into this state. She was unable to swallow. Sinapisms were freely applied, but without effect.

In the last moments of life, the scarlet flush of the surface gradually faded, and at the moment of death, which occurred at 1 o'clock, P.M., the surface presented a yellow, jaundiced hue; after death, body mottled; decomposition rapid.

I attributed the sudden death of this patient to the high degree of heat and the consequent disorganization of the blood, and derangement of the nervous and muscular forces, consequent upon the action of the febrile poison.

It is worthy of note that the preceding case of yellow fever was developed sixteen days after the mate of the Valparaiso was attacked, and that the patient was confined to her room for a period of nearly three weeks preceding the fatal disease, and her residence was at least half a mile from the Mississippi river, and about two miles from the head of Third street, where the bark lay.

After careful investigation, I could find no evidence whatever that this patient had received the infection from any imported or foreign cause, and I regarded the disease as having originated de novo; in other words, that this was truly a sporadic case, originating in New Orleans. None of the inmates of the house had been previously sick with any fever, and no case occurred subsequently at this locality.

Fifth case, J. M., carpenter on steamer Pike, which was undergoing repairs about 30 yards from the steamer Belle Lee; attacked July 27th; recovered.

Sixth case, J. D., employed in loading bark Valparaiso; taken sick July 29th; recovered.

Seventh case, S. G., taken sick July 31st; died August 4th.

Eighth case, J. E. K., taken sick July 30th, on steamer Pike; recovered.

Ninth case, J. S. had been in New Orleans about four months and worked in the sun about one hundred yards from the Belle Lee; taken sick August 1st; died August 5th.

Tenth case, C. M., taken sick on steamer Pike, July 20th; died August 7th.

Eleventh case, C. H., seized on the 8th of August; died on the 14th; had been engaged in painting the Belle Lee.

Twelfth case, S. M., Aug. 9th; died Aug. 15th.

Thirteenth case, Chinaman, died at Charity Hospital, Aug. 15th.

Fourteenth case, C., 187 Rosseau, seized Aug. 15th; recovered.

Fifteenth case, J. O. D., taken sick at residence, Aug. 15th; died August 19th.

Sixteenth case, J. P., died in Charity Hospital Aug. 21st.

Seventeenth case, J. R., seized August 17th; died August 19; had nursed case 15.

Eighteenth case, J. J. H. died Aug. 22; had visited steamer Pike.

It is evident from the preceding records of the Board of Health, that the majority of the first cases appear to have contracted the disease in the same locality of the city. It is also worthy of note that in 1870, yellow fever was confined to a portion of the city four by twelve blocks wide and deep in the second district of the city, and to a locality three by six blocks wide and deep in first district; in 1871-2, the disease was limited to portions of the fourth district, contiguous to, if not embracing, the locality where it first appeared in 1873. There are no facts to show that the yellow fever of 1872 was imported; the evidence, on the other hand, goes to show that in this year, at least, it originated in New Orleans.

Whilst for a time the disease appeared to be localized, sporadic cases have
occurred in various portions of the city, and across the river in Algiers. In my private practice, I have attended cases on Common street, Russian street, Girard street, Dauphin street, St. Charles street, and in Algiers. The relative mortality, as reported by the Board of Health, is certainly very great; viz. 200 deaths in 368 cases; 54.5 per cent., or one death in 1.84 cases.

It is probable that the actual number of cases has been much larger; it is also probable that a number of deaths, referred to the various forms of malarial fever, were in reality caused by yellow fever. If the total number of cases of yellow fever have not been fully and accurately reported to the Board of Health, the failure may be referred to two causes:

1st. To the great prevalence of dengue, and the failure in many cases to distinguish the milder cases of yellow fever from this disease.

2d. To the decided opposition of many to the measures of disinfection practised by the Board of Health. The opinion is held by many that the carbolic acid so abundantly used as a "disinfectant," not only has no effect in arresting or eradicating the disease, but also acts injuriously upon the sick in those localities where it is fully employed. I do not propose to discuss the question of the arrest or prevention of yellow fever by sanitary measures upon this occasion.

The fact that yellow fever has prevailed to so limited an extent during the past season has been explained upon the ground that the wide-spread epidemic of dengue pre-occupied the field, and that, in the almost total absence of emigration, there is comparatively little material for the dissemination of the yellow fever in New Orleans.

In my next letter, I hope to present some observations illustrating the natural history of the disease. Respectfully, Joseph Jones, M.D.

The Hospitals.

Massachusetts General Hospital.

(Saturday, November 22, 1873.)

Operations were performed in the following cases:—Fistula in Ano, Abscess of Thigh, Caries of great Trochanter, Disease of Knee-joint, Nasal Polypus, Stricture of the Urethra, Necrosis of Toe. On Wednesday, Dr. Bigelow operated for Ruptured Perineum.

Fistula in Ano.—Dr. Cabot passed through the sinus a ligature, which was drawn firmly, tied and left to ulcerate.

Abscess.—Located in the lower third of the anterior part of the thigh, in a child. It was opened by Dr. Bigelow, and eight ounces of pus discharged. On exploration of the cavity, it was found to be unconnected with bone.

Caries.—In a patient with carious bone about the trochanter, the sinus was freely counter-opened, and the carious surface removed with a gouge by Dr. Cabot.

Disease of Knee-joint; Amputation.—Dr. Bigelow amputated just above the knee for disease of the joint. Before operating, he directed that the limb be tightly bandaged from the toes to the hip; after the tourniquet was applied, the bandage was removed. By this proceeding, the amputation was what might be termed a dry one: the blood which is commonly lost being saved to the patient. For twenty years, this practice has been followed at this hospital in amputations, excisions, necrosis and removal of tumors in both the upper and lower extremities, in short, wherever it was desirable to save the blood of a feeble patient, or to facilitate dissection, as in the removal of a needle from the hand. In alluding to this long-established practice, Dr. Bigelow remarked that this expedient is occupying at the present time considerable attention abroad, both of the surgical public and of the medical journals. He believed that Esmarch's modification of this compression, by the substitution of an elastic rubber bandage, would soon fall into disuse; first, because a common bandage is effectual; second, because the ma-
ority of amputations are done by practitioners to whom such a bandage is inaccessible; and, third, because the material loses its elasticity in a few months. The same remarks apply to the circular elastic compression of an artery, which has been repeatedly tried in this hospital. If one turn of an elastic bandage exercises a pound pressure, it is plain that twenty turns will compress with a force of twenty pounds. But a common tourniquet will do this, and the modification of Signorini's tourniquet habitually used in this hospital ensures, after removal of the compressing bandage, a dry amputation. This case also illustrated another point of current interest. The pulse being very much reduced by protracted disease, and the joint painful upon motion, exceptional care in etherization was needed as well for the patient's safety as his comfort. Instead of being brought to the etherizing room which adjoins the operating theatre, as is usual, the patient was carefully etherized in his bed before leaving the ward.

_Nasal Polypus._—The patient with polypus of the left nostril had, also, a septum deviating to the right. Evulsion of the polypus was performed by Dr. Cabot.

_Stricture of the Urethra._—In the case of an old man, and had followed a confusion received three months before. Perineal abscess was followed by a fistula through which all the urine had for six weeks been voided. The stricture in front of this fistula did not admit the smallest capillary bougie. A silver catheter was carefully forced through the stricture and passed into the bladder by Dr. Bigelow. The stricture was then dilated with Voillemier's instrument, and an elastic catheter left in the urethra.

_Necrosis._—Dr. Cabot amputated the great toe for necrosis involving the second phalangeal joint.

_Ruptured Perineum._—A patient with ruptured perineum, occurring during labor five months ago, had been unsuccessfully operated upon by her medical attendant, a month after confinement. The rupture of the sphincter was rather more than two inches in length. Dr. Bigelow commenced the operation by dilating or extending the sphincter ani, which was spasmodically contracted near the coccyx. The surface being refreshed, the rectal and the vaginal mucous membranes were respectively united by close silver stitches. Two deep wire sutures were now passed transversely through the centre of the denuded surface, drawn tight and held by small bullets at the distance of an inch or more from the wound upon each side. The cutaneous incision was stitched with wire. The patient's knees were to be kept together during treatment by a loose bandage. Dr. B. remarked that the swelling of the parts would probably require the removal of the two deep sutures in about three days, but a similar deep wire stitch would be placed in the perineum for a few minutes, to support it during the first artificial evacuation of the bowels, under ether, about ten days hence.

H. H. A. Beach, M.D.

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**Medical Miscellany.**

Dr. Clifton E. Wing, recently one of the house officers of the City Hospital, has been appointed house physician to the Women's Hospital, New York.

The Philadelphia Medical Times of Nov. 8th refers to two additional suppressed deaths from chloroform, occurring in the practice of a surgeon in that city.

Division of the Spinal Cord in the Neck (Indian Medical Gazette, September 1, 1873).—N. B. Baillie records the case of a woman who lived for six hours after receiving a blow with a hatchet which cut through the third spinous process and the back part of the fourth cervical vertebra, dividing the spinal cord completely, and penetrating into the body of the vertebra in front of the spinal canal.—Phil. Med. Times.
The Public Bathing Department.—The bathing houses have been moored off City Point, and several persons have been assigned to superintend them during the winter. There were seventeen bathing houses in use last year, twelve of which were for males and five for females. The number of bathers, last season, was as follows:

June—Men, 74,783; boys, 235,171; women, 5242; girls, 30,718; total, 345,914. July—Men, 128,868; boys, 344,145; women, 16,900; girls, 56,616; total, 556,520. August—Men, 87,500; boys, 245,277; women, 11,717; girls, 39,086; total, 384,180. September—Men, 22,988; boys, 69,583; women, 2152; girls, 5580; total, 103,303. Grand total for the season,1,389,926. Last year, the figures were as follows:—June, 330,573; July, 539,653; August, 537,042; September, 106,154. Total for 1872, 1,519,123. It will be seen that during the year 1873 there was an increase over 1872 in the months of June and July, and a decrease of about 150,000 in the month of August.—Sunday Herald.

The Death from Morphia.—The magistrates have thought it right to commit for trial for manslaughter Surgeon-Major Macleod, who administered excessive doses of morphia to his wife, with the intention, as stated by himself, of procuring her a night's rest. Bail was accepted in the case. According to the papers, a larger quantity was given than was at first stated. The one grain not producing sleep, it is now stated that double that dose was given and repeated, and naturally it was fatal.—Dublin Medical Press and Circular.

The Government of India have met for the purpose of organizing a system of relief in view of the threatened famine in that country.—Dublin Med. Press and Circular.

A New Destroyer of the Hair.—Under the above title, Dr. Böttger, in the Memorabilien, says that we possess a new material for destruction of hair, of a most suitable description, in a mixture of one part of crystallized sulphhydrate of sodium with three parts of fine carbonate of lime mixed and reduced to a very fine powder. This mixture may be kept any length of time without alteration in well-closed bottles. When moistened with a drop of water and laid by means of the back of a knife on the part of the skin covered with hair, we in a few minutes find the thickest hair turned into a soft mass, easily removed by means of water. If it remain on the part long it will cause a slight irritation of the skin.—London Med. Record.

Died.—In this city, Nov. 17th, Dr. D. McB. Thaxter, aged 45 years.

Mortality in Massachusetts.—Deaths in sixteen Cities and Towns for the week ending November 15, 1873.

Boston, 128—Charlestown, 10—Worcester, 16—Lowell, 20—Milford, 3—Chelsea, 9—Cambridge, 15—Salem, 11—Lawrence, 6—Springfield, 7—Lynn, 7—Fitchburg, 6—Newburyport, 3—Fall River, 30—Haverhill, 8—Pittsfield, 8. Total, 287.

Prevalent Diseases.—Consumption, 49; scarlet fever, 27; pneumonia, 23; typhoid fever, 19.

Of the deaths from scarlet fever, thirteen were in Boston and nine in Fall River. GEORGE DERBY, M.D., Secretary of the State Board of Health.

Deaths in Boston for the week ending Saturday, Nov. 22d, 132. Males, 63; females, 69. Accident, 5; abscess, 1; apoplexy, 2; inflammation of the bowels, 1; bronchitis, 5; disease of the brain, 4; cancer, 1; cerebro-spinal meningitis, 3; cholera infantum, 1; cyanosis, 1; consumption, 19; convulsions, 6; croup, 2; debility, 5; diarrhoea, 1; drosy, 2; dropsy of the brain, 1; dysentery, 1; diphtheria, 1; eplepsey, 1; erysipelas, 1; exhaustion, 1; scarlet fever, 8; typhoid fever, 7; gastritis, 1; disease of the heart, 4; intemperance, 1; disease of the kidneys, 2; laryngitis, 1; congestion of the lungs, 3; inflammation of the lungs, 9; marasmus, 3; measles, 1; old age, 4; paralysis, 1; premature birth, 4; peritonitis, 2; poison, 1; puerperal disease, 3; rheumatism, 1; scrofula, 1; suicide, 3; tumor, 1; unknown, 5.

Under 5 years of age, 48; between 5 and 20 years, 13; between 20 and 40 years, 28; between 40 and 60 years, 23; over 60 years, 20. Born in the United States, 90—Ireland, 32—other places, 10.
CONTRIBUTIONS TO PATHOLOGICAL PHYSIOLOGY.

By John P. Mettauer, M.D., LL.D.

The actions of the living body in a state of health are assumed to be in perfect equipoise, or so nearly so as to present no appreciable phenomena indicative of a departure from that condition. Slight and transitory deviations may, and doubtless do, take place, but not generally resulting in actual, or even apparent, disease. The nervous, vascular and muscular systems, as well as the organs of digestion, may experience undue activity or depression of their functional exercises without becoming diseased, either in function or structure, when the disturbance is of a transitory character.

How a diseased state differs from a healthy or normal condition, can be explained only rather conjecturally. They are both states of vital exercise of living organs; one tending to the support, perpetuation and present existence and development of the individual, while the other seems to war against those tendencies through a perverted or pathological state of the vito-physiological exercises, and fraught with disorganizing proclivities.

We can only conjecturally explain how morbid impressions induce disease in the living organism. By virtue of some quality or mode of action, induced by disturbing causes, the equilibrium and "beautiful balance of health is broken" and perverted; and the various functional exercises, designed for the nutrition, growth and preservation of the organism, become, sooner or later, more or less disturbed and irregular; which disturbances are ultimately followed by structural metamorphosis, in variable degrees of intensity as well as of form, and accompanied with phenomena of exceedingly diversified character. Intense perturbation of the living body has, in numerous instances, quieted down into a calm and well balanced state of the functional exercises without being followed by disease; yet, more frequently, the reverse is the case. Frequently, too, disease, or perverted vital action, occurs without the precursory existence of an apparent or known cause. And, in almost every instance, surgical operations and mechanical injuries are followed by such perversion of the functional exercises. These causes seem, as it were, to put the nervous system or the functional vitalities out of tune.
A liability to a diseased state of the living body has long been supposed to preexist, and to depend upon morbid conditions stealthily induced in the organism of the affected individual, from the direct operation of external causes, or from congenital influences transmitted from parent to offspring. This liability, or predisposition, has never been analyzed so far as to enable investigators to determine its essential characters and pathological peculiarities. Enough, however, is known to remove all doubt as to the existence of such a condition; and it is established that it not only predisposes to, or invites disease, but also determines the type as well as the intensity of the character of the resulting disease. Whether a predisposing state invariably precedes an attack of disease is not certainly known, and very probably never will be positively determined; yet it seems reasonable to suppose that, in many instances, diseases occur without preexisting predisposition, the exciting causes seeming to act also as predisposing.

Once established, predisposition may endure for an indefinite period, and possess every conceivable variety of morbid impressibility, as well as of intensity. It is not invariably followed by disease, nor does it always manifest itself by symptoms of striking or even of diagnostic characters.

It is not determined that a predisposing state of the economy is, in truth, a pathological condition, or that it is not the initial or first stage of a disease. That it is a morbid condition is exceedingly probable, and, as already stated, examples have occurred in which supposed states of predisposition have not been followed by disease. Whether a pathological condition or not, it seems to invite diseased action, and, as previously intimated, determines the type of the resulting disease.

The causes of disease, which are both predisposing and exciting, act very differently upon the living organism, and very probably this diversity is due, in some degree, to the great dissimilarity of structure of the body. How these causes act can only be conjectured; but the most rational view seems to favor the opinion that they operate primarily, if not chiefly, as nervous irritants, and that they first disturb sentient vitality in its normal relations with functional exercises, resulting in morbid or abnormal nutrition, manifested by the various mutations of structure and perversions of function, universally attendant upon a diseased state of the body. Each cause acts after its own peculiar manner, and, as already intimated, the organism reacting may influence the resulting product. Causes, too, act by preference, or by morbid affinity, upon certain structures or organs in the production of predisposition to disease. Disease is the morbid condition which supervenes upon the predisposing state, and appears under a countless variety of forms, and of every conceivable grade of intensity of morbid action.

The actions of the living body in health and disease are vital.
movements of the organism, one tending to the nourishment and support of the individual, while the other as constantly counteracts those tendencies. Healthy action, in which there is a quasi well-balanced state of all the functional exercises of the diversified organism, differs from diseased, chiefly, in the equableness and regularity of its phenomena, and the comfort and general well-being of the individual. It is true this action is frequently exalted, in some instances considerably above the normal standard, from exercise, diffusible stimuli, and the like, but it retains the equable and well-balanced qualities characteristic of healthy excitement; and if there is any increase of vital force it is only temporary, and subsides with the actions inducing it. Morbid action, on the contrary, is characterized by more or less irregularity, both as to equableness and intensity, and impairs the comfort and general healthfulness of the economy in every conceivable degree of severity; but whether it is attended with exaltation of vital force, is a question undetermined.

Within the past twenty-five years, there has been a manifest change in the views of medical men, both in Europe and America, in relation to the nature of morbid action, particularly inflammation; and, at the present time, the belief is almost universally entertained, that this abnormal state consists in vital movements of the living organism of depressing character. This belief, to a certain extent, is true, but only so far as the diseased process tends to impair nutrition and disturb the physiological exercises. Irritation might very properly be adopted as the best term by which to designate morbid actions, as it can be so made as to embrace every form of human disease, as a generic term, and the term imports a diseased or fretted and vexed state.

Morbid action, once established, perverts the secretory as well as the nutritive exercises, and very soon retrograde metamorphoses take place in the organism, constituting inflammation or inflammatory irritation. In this process, there is no positive increase of vital force, not even in the more acute forms of inflammation. It is true, some of the functional vitalities seem to have been exalted, especially sensibility, and that process upon which the generation of animal heat depends; yet these are morbid conditions, and may occur in opposite states of the system, and unattended with general augmentation of the vital energies.

Morbid action, whether of violent or moderate intensity, although consisting of perversion of the actions of health, is a vital process. Inflammation, or morbid action, consisting in perversion of the nutritive exercises of the organism, must have its seat in the same structures, and be kept up by the same functional vitalities in their perverted condition, which rule in health. In truth, it is modified life, and, unquestionably, consists of new actions and products, which tend to the destruction of life instead of its preservation.

The diseased, or irritative action, is the true disease, the "ipse
morbus," and the results, both in the form of change of structure and of the composition of the blood, as well as the engorgements and effusions, are the accidents supervening upon it but are not necessary attendants. Although generally present, there are instances occasionally met with in which they are absent. These results modify the inflammatory process, but are not necessary constituents of it.

Of the morbid results, engorgement of the implicated structures is perhaps the most striking and important, and possibly may be one of the earliest, if not the first pathological change of structural relationship of the organism. This condition very probably is the result of disturbed secretion, the blood accumulating in the capillary vessels by reason of such disturbance, together with the retained matters normally separated from it. At first, it exists chiefly as passive hyperæmia, but sooner or later acquires active qualities, which cause it to react upon the preëxisting circulation, and then it becomes an associate element of the inflammatory process. It is this engorgement, or hyperæmia, very probably, which, after putting on acute characters, causes infiltration of the inflamed structures, especially the escape of the white corpuscles into them, and thereby renders the process fully developed. Very soon, the capillary vessels, as well as those of supply, near the seat of inflammation, become enlarged, from the pressure of the blood, and this condition invites increasing affluxions of blood, as well as causes still farther engorgements. With the increasing congestion, the throbbing and undue heat of the affected parts, which early appear, progressively augment, accompanied with morbid sensibility, often pain, redness and swelling. The tumefaction of an inflamed part depends upon engorgements and infiltration into the structures permeated by the congested vessels; and very probably the infiltrating process is a form of morbid nutrition, especially as far as the escape of the leucocysts into the contiguous textures is concerned. The inflamed vessels, however, doubtless also contribute to the throbbing, by reason of their pulsatile efforts to remove the congestions, now painfully existing. The undue heat of inflammation, doubtless, is the result both of the accelerated circulation of supply and the detention of the abnormal quantity of blood in the affected part. Suspended or diminished secretion of the tegumentary or other covering of the part may also cooperate in the exaltation of temperature; and, possibly, a morbid evolution of heat may be one of the pathological elements of the inflammatory process; and increased redness may likewise be due to these conditions. Morbid sensibility and pain are the result of undue exaltation of sentient impressibility, but pain may be also caused by undue pressure, or overstretching of the structures of an inflamed part.

These last-named phenomena are the characteristic symptoms of inflammation as it ordinarily appears, and are due to the pathological changes, both of structure and function, which have taken place in the diseased part.
The perverted nutrition in this new state of existence is accompanied not only with the exudations, effusions and engorgements already alluded to, but with aberrations of circulation, or *error loci*, as Boerhaave termed it, in which red blood finds its way into vessels designed to contain and circulate colorless fluids in a normal state. That such aberrations do actually occur in inflammation, every experienced and observant surgeon will admit; and it is highly probable that they impart to the inflammation of the fibrous tissues the violent characters which usually distinguish them. They may also essentially influence the inflammatory process as it appears in the red-blood organs, as most, if not all of them, are composed of some form of white tissue in variable degree.

While the inflammatory process is to be regarded as a new form of vital existence, as has already been intimated, yet the living organs and the tissues in which the new actions occur are fundamentally the same which existed before the occurrence of the inflammation. The organism is, in many respects, more or less changed in its histological relations, but its elementary constituents are virtually the same as in a normal state. It is true the form of disease, in many instances, seems to disintegrate and change the original stamp; nevertheless, bone continues to be bone, nerve as nerve, muscle as muscle, &c. These two conditions once established, that is, functional aberration and structural change, react upon each other, and thus both perpetuate as well as aggravate the existing inflammation.

It has been intimated that morbid action, such as inflammation, is a devitalizing process, and that view is strongly supported by the numberless instances of its fatal termination, if other evidence was needed. That the process is disorganizing cannot be questioned; and, as it consists in perversion of the normal histological exercises which are based in the highest normal force, the maximum of vital action, it must represent an inferior grade which, very properly, should be termed devitalizing. John Hunter believed that inflammation might be reparative, and his adhesive description of it has found many advocates. What he termed adhesive inflammation was only temporary exaltation of the reparative exercises, and not inflammation. Every species of the inflammatory process is unfavorable to adhesion, is its antagonist and the surgeon’s greatest operative enemy.

The increased amount of blood in an inflamed organ gives no evidence of augmented vital force; on the contrary, it indicates that the vital energies are impaired, and that such accumulations are due to the enfeebled state of the vessels, their walls being unable to resist the blood pressure. If normal vital force is truly the maximum of healthy action, it would be folly to suppose that it could be exalted beyond its maximum; and as the physiological exercises can only be maintained in such a state of the organs and the vital forces, all departures must represent a diminution, not increase of it.
From what is now known, inflammation is to be regarded both as a devitalizing and destructive process, in which the vital energies, as well as actions, represent a degraded condition of vital existence. An inflamed organ, it is true, maintains itself, but only by nutritive processes greatly variant from those of a healthy state of the organism; and this abnormal life, soon or later, terminates either in death by increasing disorganization, or in recovery, from gradual reestablishment of the vital forces.

From the most enlightened view in which it can be contemplated, aided by the lights of an advanced pathology, inflammation, essentially, seems to be an arrest of normal nutrition and support of the organism, consisting of vital actions which maintain life in the tissues but entail upon them a perverted or abnormal existence. It is, as already intimated, virtually a new life, superinduced by morbid causes acting upon the economy. It takes the place of healthy nutrition, and establishes itself upon the perverted ruins of physiological life. In other words, it is morbid nutrition, due to perversion of the laws of the economy which supervise and control the exercises of health; and its actions are maintained by a degraded vitality, whose force varies much according to the circumstances which environ it.

- A treatment of inflammation, deduced from its nature, as indicated in the brief summary of its constituent elements attempted in this paper, it seems to the writer, cannot be difficult of conception or adoption with well-informed and unprejudiced physicians. From the earliest periods of the history of medicine, the antiphlogistic method was generally adopted, and received almost the undivided sanction of the profession until within the past thirty-five years; but at the present time not only is the practice almost entirely abandoned, but in a great degree the term distinguishing the method has become obsolete. The enfeebling method, so long and so successfully employed, has been superseded by the supporting and invigorating; yet, with all of the pomp and ingenious theorizing of the latter, also the quasi support of the refinements of modern pathology, the new departure cannot compare with the antiphlogistic as to successful results. The enfeebling method, however successful it may have been, was, nevertheless, doubtless often improperly employed, as well as predicated upon erroneous conceptions as regards the pathological essence of inflammation, especially as relates to the employment of bloodletting. This remedy, like others of heroic potency, in many instances, has been injudiciously resorted to, both as regards applicability and energy, but when employed under proper circumstances no therapeutical agent known to the profession has been productive of more benefit and has done less injury. The writer has always been an advocate of depletory measures in the treatment of inflammation, and his long experience of more than forty years has not in the slightest degree impaired his confidence
in them. Bloodletting is decidedly the most powerful of these measures, as it withdraws from the living body its *pabulum vitæ*, the sanguine nutritive fluid; while low temperature, or cold, ranks next in potency, by reason of its tendency also to remove from the economy its heat, another important and indispensable supporter of its vitalities as a nutrient. If the withholding of food is to be regarded as depletory, it is indirectly so, but ranks as an enfeebling agency of considerable power.

When bloodletting is used as a therapeutic agent in the treatment of inflammation, the chief object is to weaken the force of the general circulation, and at the same time to diminish the momentum of the currents of blood directed to the inflamed part, as well as in some degree the supply of blood. It may also lessen the amount of the pathological elements of the blood, which feed and prolong the inflammation, by reducing its quantity; and it doubtless tranquillizes and abates, in a degree, the general erethism. It is more especially suited to the early stages, while the process is developing itself, and the accompanying engorgements are acute. Good effects, however, follow from it often after the complete formation of the phlogosis, especially if the attendant symptoms are very acute. After attaining its complete development, it is questionable if blood should ever be detracted in inflammation. The process is now at its acme, or perhaps retrogressive; or tends to disorganizing metamorphoses of the tissues. There is no longer anything unsteady or fluxionary in the inflammation, which are the conditions most favorable for the immediate action of bloodletting.

It is not the intention of the writer to enter into the full treatment of inflammation, his object being chiefly to express his views as to the nature and pathological essence of the process, and the applicability of bloodletting in its treatment, as well as depleting measures generally. A volume would be required for a complete examination of so copious a subject, embracing as it does all human diseases.

Even in typhoidal or chlorotic conditions of the system, the abstraction of blood would be safe and proper if a vital organ of great delicacy should be the seat of inflammation. In some instances, no other therapeutical agent could possibly protect delicate and vital organs against disorganization. The belief that the abstraction of blood is improper and contra-indicated in subacute inflammation is not sustained by the experience of the writer. It would not be proper, nor will it be necessary, to bleed freely in such cases, but the remedy, judiciously employed, is not only a safe but often highly beneficial expedient. The bleeding should always impress the pulse, but not as decidedly as in pure inflammation. In phrenitis, pleuritis, peritonitis, and certain mucous inflammations, the most impressive bleedings will be required, and are generally well sustained.

That mercury acts as a valuable remedy in the treatment of in-
flammation will hardly be denied, and it is applicable to every variety and grade of the process. In the acute forms, its chief action seems to be that of a recurrent cathartic, and possibly it may also operate through the blood by lessening the amount of fibrin or other inflammatory constituents it may contain. In the subacute forms, its chief therapeutic action is that of a deobstruent, which, in other words, is a secrerent or exciter of general secretions. The action of tartar emetic is very similar to that of mercury in these inflammations, and very probably the different preparations of iodine also.

Stimulants and tonics might be safely used in subacute inflammations, but in those of acute character are certainly contra-indicated. By accelerating the circulatory movements, they must of necessity augment the inflammatory process, which depends upon undue activity of the circulation. Even if they only maintain the existing morbid action, they may prove injurious. A moment's reflection will show that exciting measures must add to the danger of inflammation, as they certainly tend to augment as well as continue the actions upon which the process depends.

Food of highly nutritious qualities ranks with stimulants, and is improper in acute inflammation. Even in subacute forms of it, such food is of questionable safety. In the opinion of the writer, strongly nourishing and stimulating food should only be employed when digestion is vigorous and the organs executing it healthy. Strong, rich food can only be properly digested by strong and vigorous stomachs. To present such food to a weak or diseased stomach will be as likely to prove disastrous as to apply warm water to a frozen limb.

Worsham, Prince Edward Co., Virginia.

The late M. Nélaton.—The departed eminent surgeon has been the subject of accurate biographical notices, but their authors have not sufficiently insisted on the peculiar timidity and shyness which characterized his general demeanor, so much so that those who might have feared him as a competitor relied on this retiring disposition, and apprehended no rivalry, especially as he was known to have considerable property. But his success with Garibaldi and the favor of the Emperor worked wonders. It is a pity that the circumstance which gained him the Imperial Court drove a colleague of his into an asylum for the insane. Jobert (de Lamballe) had for some time secured the confidence of the Emperor when the Empress and her suite met with a carriage accident in Switzerland. The telegram sent to Paris said, "Let Jobert start at once, or, in his absence, Nélaton." Unfortunately for the former, he was out of town, and Nélaton went down to Switzerland. His services and his manner won the Empress; poor Jobert was supplanted, and he took the change to heart in such a manner that his mind became unhinged. Nélaton from that period rose with wonderful rapidity. He attended, some time afterwards, the Czar's son at Nice, his honorarium on that occasion amounting to £16,000.—Lancet.
Progress in Medicine.

REPORT ON DERMATOLOGY.

By James C. White, M.D.


This is an attempt to explain the symmetrical and constant form of distribution of the eruptions upon the skin observed in certain diseases. On the back, these lines of localization are seen to run parallel with the ribs; next the spine, upwards; on the outer portions, downwards. On the neck and over the superior thoracic region, they converge from above outwards, from below inwards towards the sternum; on the inguinal region, they are parallel to Poupart's ligament; on the inner side of the thigh, parallel to the sartorius, &c. Similar lines might be given for other portions of the body. Such a chart, which is closely adhered to by the external manifestations of many cutaneous diseases, requires explanation, and Dr. Simon seeks this in the anatomical structure of the skin. He finds that the fibrous layer of the corium is arranged in definite directions, that the distribution of the papillae is determined by the longitudinal trend of the fibrous bundles, that these in turn govern the arrangement of the natural furrows of the skin. In the same way, he thinks he traces a controlling influence upon the various glandular systems, and of the cutaneous vessels and nerves by this fibrous element, this skeleton of the skin. Having thus established a scheme of architecture for the skin in health, he would refer to the same the distribution and arrangement of the various forms of efflorescence in many cutaneous diseases.

There are, however, many causes for the peculiar localization of special diseases outside these natural laws, which are fully and thoroughly discussed in this interesting volume.


The disorders of the sweat-glands have received less attention, perhaps, than those of any other organs and tissues of the skin. This treatise, although it adds little, if anything, to our previous knowledge of a mysterious class of affections, yet presents in a compact form a considerable amount of information, which has not hitherto been brought together. It contains chapters on excessive perspiration of the feet, of the axillae, on éphidrose parotidienne, éphidrose palpébrale, on local perspiration following neuralgia, on unilateral forms of sweating, and on partial perspiration caused by disturbances of circulation. The author has little to say in explanation of the causes of these singular affections. The relations between some of them and disturbed innervation have been sufficiently demonstrated. With hyperæsthesia of the skin hyperidrosis seems to be in order, while with anæsthesia anidrosis is generally observed. This is readily understood when we consider that the supply of the blood to the capillary plexus surrounding the sweat-gland is regulated by the vaso-motor nerves, and that with hyperæsthesia there is hyperæmia and elevated temperature...
of the skin. The strange form of sweating from the skin overlying the parotid gland is explained by reflex action, a similar phenomenon to that of the perspiration upon other parts of the face when certain articles of food are placed upon the tongue.

The last two chapters of the monograph are upon hæmatidrosis, so-called, a rarely observed hæmorrhage from the sweat-ducts, and chromidrosis. There have been, no doubt, authentic cases of colored sweat, in which the chemical nature of the pigment has been found to be diverse, but many thus called have been cases of simulation, and some abnormal action of the sebaceous rather than of the sweat-glands.

*Essai sur l'adénome sudoripaire.*—Dr. Jourdan, as reported by Dr. Courtaux (*Annales de Dermat. et de Syph.*, Quatrième année, No. 6), describes in this essay certain tumors, the nature of which was not recognized before Verneuil's memoir appeared. He gives three varieties of hypertrophy of the sweat-glands. In the first, or "encysted," there is a stoppage somewhere along the duct, and the secretion collecting distends those parts least supported by the surrounding tissues. Other occlusions follow at different points along the canal, and in this way a series of cysts is formed, resembling a rosary, which contain a yellow, ropy, transparent fluid. Their walls are thick, fibrous, and resisting, and they are lined with extremely small cells of pavement epithelium. In the second variety, which he calls "general simple hypertrophy," the sweat canals present culs-de-sac, which at first, being simple dilatations, exhibit a varicose appearance. Gradually they enlarge independently, become isolated, and assume a tubular form. These tubes sometimes remain simple, but more generally they become themselves the axes of new offshoots, and upon them are formed in the same way other diverticula, at times so numerous as to resemble a lobulated gland. The epithelium within the culs-de-sac differs from the normal epithelium in quantity and character. There is at times a considerable proliferation, and the cells are of an elliptical form, and are arranged so that their long axes are perpendicular to the walls.

In the third variety, called "general hypertrophy with intermixture or infiltration of epidermal cells," there are found, as in the preceding, hypertrophied tubes with digitiform appendages, and culs-de-sac; but there also are present, in the glandular dilatations and in the newly-formed tubes, cells and epidermal balls. It is, in fact, only an advanced stage of alteration, and two, or all three of these forms may be met with in the same tumor. In size, adénome sudoripaire varies from a pea to an infant's head. When it has reached a medium stage of development, it may ulcerate and strongly resemble cancrum in appearance. Verneuil has pointed out, however, the following differences between these affections: In epithelioma, the borders of the ulceration present vegetations; in adenoma, they appear cut out with a punch. Sometimes lupus, chancre, and other ulcerations serve as starting-points of adenoma. When extirpated, the tumor is sometimes reproduced, the disease reappearing in the sweat-glands adjoining the primitive tumor. The re-production is therefore by continuation, their alteration not having been sufficiently advanced at the time of operation to be recognized by the naked eye. Dr. Jourdan, in conclusion, is not far from admitting that adénome sudoripaire may transform itself into cancer.
The Variola-Varicella Question.—Kaposi (Archiv für Dermat. und Syph., V. Jahr. Zweites Heft), in a long and important article, in which this much- vexed question is considered, with particular reference to the many points which have been put forward by those who maintain the duality or individuality of the two affections, draws from all the premises the conclusion that varicella, as a contagious affection, is identical with variola. In the same number will be found a report in full of a discussion of this question, which occupied several sessions of the Vienna Medical Society.

Peculiar Skin Disease in Children.—Uffelmann (Archiv für klin. Med., in N. Y. Med. Journal, July, 1873) has observed a peculiar disease of the skin, affecting children by preference, very similar on appearance to erythema nodosum, usually having its seat in the lower extremities, but occasionally, also, on the arms. The disease manifests itself by round knots, in size from a pea to a pigeon’s egg, which are situated in the subcutaneous connective tissue, are movable, and only tender on pressure, and are usually covered by reddened skin. They are aggregated or disseminated on the limbs according to the number of knots, from six to thirty. The portions of skin surrounding them are slightly swollen, without being oedematus or having increase of temperature. There is no inflammatory implication of the veins or lymphatics. The knots gradually disappear without local medication, not accompanied, however, as in erythema nodosum, by exfoliation of the epidermis or the greenish-yellow discoloration of the skin. The chief characteristic of the lesion is the severe constitutional disturbance which accompanies it. Without any marked febrile action (at most an elevation of one per cent.), there are marked pallidity of the face and of the visible mucous membranes, great muscular debility, an aversion to play, and much gastric disturbance. The author has always found a marked diminution of the red and considerable increase of the white blood-corpuscles. No important lesion of internal organs was found. After the disappearance of the knots, the characteristic symptoms of anæmia, which were well marked during the progress of the disease, remained for some time. The disease affects only delicate persons, and, according to Uffelmann’s observations, without exception, those only with a tendency to hereditary phthisis, and the author does not hesitate to establish a connection between the two diseases. Syphilis could not be traced. Treatment consists in improving the constitution. Besides proper dietetic regulation, the preparations of iron are indicated.

Abortive Treatment of Furunculi.—According to several observers, as recorded in the French journals, the following method never fails “to take effect.” As soon as there is perceived that characteristic redness, round in form and variable in size, with a culminating point in the centre, which, red at first, soon turns to a grayish-white, dip the finger into a little camphorated alcohol, and gently rub the suspected part, especially the middle; moisten the finger, and rub again in the same manner, eight or ten times for half a minute each time. After this friction, cover it lightly with the finger with camphorated olive oil. It is rare for a blind boil or furuncle, at the moment of lessening, to resist four applications of this kind. Often they have been seen to dry up and disappear after only one application.

Erysipèle scrofulieux.—Courbon (Thèse de Paris, 1873, in Annales
de Derm. et de Syph., Quatrième année, No. 5) has observed the following peculiarities, upon which he bases the individuality of the affection. It differs from ordinary surgical erysipelas in its non-contagiousness, its mildness, and its failure to locate itself about the borders of the sores which are so frequent in scrofulous persons. In addition to the fugitive and permanent forms, M. Courbon describes a recurrent form, consisting of a series of attacks, succeeding each other at very brief intervals (from one to five days), which is only met with among the scrofulous. Its seat is the face, the pharynx, and in a single instance (in nineteen observations) the auditory canal. Swelling of the glands always follows. The prognosis is favorable, even in cases where the beginning has been marked by violent delirium, and in those where albuminuria has been noticed to coexist. It has also no effect upon the ulterior course of the scrofula.

**Herpes labialis.**—*L'Union Médicale* (Aug. 5, 1873) contains a report to the Société Médical des Hôpitaux, by Moutard-Martin, upon a long work of M. Lagout, of Aigneepere, on herpes labialis considered as an eruptive fever, with a normal evolution ending in cure, and an abnormal evolution ending in death, and occurring sometimes as an epidemic, sometimes sporadically. Lagout regards herpetic angina, not like other observers as a coincidence, but as a stage of herpes labialis, and also recognizes a herpetic pneumonia; both, according to his view, the manifestation upon the mucous membranes of the eruptive element during the fever of elimination of the herpes labialis. He presents the following propositions concerning the herpetic pneumonia:

1st. As Grisolle has observed, it is especially when the vesicular eruption appears upon the upper lip that the resolution of the pneumonia is most complete, or, according to himself, that the eruption has most surely accomplished its regular evolution.

2d. When the eruption shows itself about the wings of the nose, it appears incomplete, and in such cases the fever of elimination, at first insufficient, reappears with an intermittent type.

3d. When the eruption comes upon the lower lip, is small, of isolated vesicles, and without inflammatory vigor, the resolution of the herpetic pneumonia will be slower, and correspond rather to the type of pneumonia with herpes, if slowness or anomaly in course in an eruptive fever is enough to change the law.

4th. Herpetic angina and pneumonia, however grave they may be by the confluence of the eruption, always declare their origin by some stray vesicles upon the lips. One should always distrust the diagnostic significance of herpes without an efflorescence upon the lips.

5th. The period of the eruption upon the lips should be within a limited time, to constitute a regular eruptive fever; thirty-six hours for a simple herpes labialis, forty-eight to fifty hours for an anginous complication, four days for a pneumonia. The farther this period is extended, the graver and more to be feared will be the symptoms; ataxic, if the vesicular character remains unchanged, adynamic, if altered.

6th. The therapeutics of this eruptive fever are the same as in other fevers of the same character (expectant médecine).

7th. The complications may be irregularity in the fever, or the confluence of the eruption in the throat or lungs.
Pemphigus aigue fétique.—Par M. Horand, Chirurgien en chef désigné de l'Antiquaille (Annales de Derm. et de Syph. Quatrième année, No. 6). In this article, M. Horand describes two cases, in which the bullous eruption by the third day covered all parts of the body excepting the scalp. There were successive outbreaks of the efflorescence and fever. He is inclined to consider varicella, general herpes, and acute febrile pemphigus, not as distinct affections, but as simple varieties of herpetic fever.

Pemphigus.—Picot (Jahresbericht Gesammten Medicin, 1873, from Gaz. des Hôp.) strongly recommends the treatment introduced by Hillairet, and which resembles that for burns described in the last semi-annual report.* It consists in applying to the affected skin bandages soaked in a liniment of oil and lime water. In the two cases reported by him, the bullous eruption extended over nearly the whole body, and was accompanied by severe itching. The fever was considerable. Both patients were bound up from head to foot in wadding soaked in the preparation, which was daily changed. The general condition improved, the temperature sank without internal medication, and, later, the fever entirely disappeared. The excoriations arising from the bursting of the bullae quickly dried, and healed in a short time. In one of the cases, no new bladders appeared after six weeks, while, in the other, perfect recovery only followed in two and a half months. In the latter case, a new eruption immediately followed a few days' interruption of the treatment. Hillairet has pursued this method for two years in eight or ten cases, and always with similar results. In two cases of pemphigus foliaceus it was less favorable.

Psoriasis; its relation to Rheumatism.—Dr. Satterlee, in the July number of the Amer. Journal of Dermatology and Syphilis, states that some two years since, he began to test the similarity of physical conditions present in these two diseases and to treat the former on the theory of an identity of the materies morbi, said materies being the product of imperfect oxidation of the "proteids." Without giving his argument for this theory, which is based mainly on undemonstrated chemical assumptions, the results of his practice are worthy of record. If, he says, we will regard psoriasis and rheumatism as produced by the same cause or condition of the system, namely, the result of the metamorphosis of an excess of nitrogenous substances, our treatment is readily suggested. Decrease the amount of nitrogenous food taken into the body, by restricting the diet, and give such remedies as will promote oxidation, so that the excess of nitrogenous material may be oxidized up to the point where it is easily eliminated from the body. In a chemical point of view, the alkaline salts constitute the most important principles promoting oxidation; even vegetable acids are converted in the system into carbonates for this purpose. The alkalies do not neutralize the uric acid, as was at one time supposed; but they prevent its formation to the extent which constitutes a materies morbi, by oxidizing it up to urea. Lemon juice, of which the chief constituent is citric acid, has likewise been shown to possess remarkable therapeutic properties in these as well as other affections. Large draughts of pure water act by oxidizing, "the water being decomposed, its hydrogen contributing to form ammonia, and its oxygen

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urea." The diet is restricted to vegetables and fruits, meats being forbidden. In this treatment the good effects are but slowly manifested. Two or three weeks sometimes pass before a change is noticed; then the eruption begins to pale and to scale less; this is followed by an improved general condition. The patient says that he feels better and stronger than he has done since the first appearance of the disease. The eruption takes a natural mode of subsidence, the spots changing into rings, by the appearance of healthy skin in the centre of each spot. These rings gradually break up into segments of circles, and then disappear, leaving a faint, pinkish stain on the skin, which, in turn, vanishes. The smaller spots (guttata) also disappear, some leaving transitory stains, and others none at all. When the patient is entirely well of the eruption, his general health is improved; he has often gained much in weight during the treatment; and I have yet to see, he says, a case where the disease has returned after the cessation of alkaline medicine, although I have maintained (but not so strictly as during the treatment) a general vegetable diet. Several times I have suspended the treatment, and allowed a return to a meat diet, with alcoholic stimulants, which was speedily followed by a retrogression in the cure. As psoriasis is essentially a chronic affection, requiring sometimes many years to cover the body, we cannot, of course, expect to speedily eradicate the disease. By this treatment, from one to six months may often be necessary to produce the desired result.

Psoriasis; Treatment by Acetic Acid.—Buck, in Lübeck (Jahresbericht Gesammten Medicin, 1873), recommends the following course: After the collections of epidermis have been removed by warm baths and a brush, a portion of the eruption is painted, in the beginning once a day, with the acetic acid by means of a large camel's-hair brush, and subsequently as often and energetically as the patient has the power and will to bear the pains which are soon felt. The place becomes white after the application, and swells up; the surrounding skin reddens and swells; and the patient complains of a burning sensation. The superficial cutaneous layer, at first softened, gradually dries into a horny covering, and, after a new epidermis has formed, is easily removed before a new cauterization, or falls spontaneously. If the application is repeated several times during the day upon the same spot, vesicular elevations or suppurative softening follows, by which the diseased parts are the more quickly cured. The painful sensation of burning generally ceases after a quarter of an hour, and any other injurious local or general effect upon the body, however many places are cauterized, is not observed. Persistent pain and more extensive swelling and redness of the vicinity will, of course, prevent the repetition of the application for a time, to any spot, but, after the hyperemic and edematous part has been relieved by evaporating-lotions, it may at once be used again, if necessary. This process is repeated once, twice, or even more times a day, according to the patient, until no reddened or elevated point covered with brawny, yellow scales, exists to indicate the return of the epidermal proliferation, and the skin remains smooth and natural; a cicatrix is never observed, although a darkening of the skin remains for some time and gradually fades away. The healthy surrounding skin of most patients is generally not affected by contact with the acid, an occasional burning and rubefacient
EDITORIAL.

Effect only being produced, and a pretty sure sign that a part is permanently restored to a healthy condition is afforded when the application ceases to produce pain, or produces it in a less degree than at first. According to the number and size of the patches of eruption, and the strength and determination of the patient, the cure varies from four to eight weeks. When by confluence the efflorescence covers nearly the whole surface of the body, the acetic acid can scarcely, or at most only very gradually, be used.

(To be concluded.)

Boston Medical and Surgical Journal.

Boston: Thursday, December 4, 1873.

As showing the great need felt, by the officers of the Boston Dispensary, of a new building, the size of the old one being utterly inadequate for the growing needs of the city, the following extract from the Annual Report of the Superintendent is made:

The number of new patients at the Central Office during the year ending September 30, 1873, was 17,366, of whom 13,219 were medical, and 4247 surgical. The medical patients comprised 3,761 men, 5,613 women, and 3,745 children; the surgical were divided into 1,688 men, 1,275 women, and 1,284 children. The district physicians were called upon to treat 9,982 new patients, viz., 2,012 men, 3,982 women and 4,078 children. The following results were reported by the several district physicians:

- Discharged, cured or relieved, 8835
- Sent to hospitals, or removed from districts, 724
- Died, 367
- Under treatment, 150

Under treatment at last annual report; 10,076

Number of cases at Central Office, 9,982

Total number of new patients treated, 17,366
Total number of patients, new and old, treated during the year, 27,348
Number of cases of midwifery, 27,056
Number of recipes given, 98
Number of recipes given, 51,359

Since July 1st, the various special departments of the Dispensary have been in full operation, with the following results for the quarter ending September 30th:

- Eye Department, 248
- Nervous " 121
- Skin " 440
- Dental " 395
The number of patients constantly increasing, it is to be hoped that, before another year closes, a new and larger building, for which the plans have already been drawn, will be in the process of erection.

CEREBRO-SPINAL MENINGITIS.—We would respectfully remind our correspondents that the time for returning the statistics in regard to the epidemic of the present year cannot longer be extended. It is very desirable that the information we are now attempting to collect be as full as possible, and we take this method of again calling the attention of our professional brethren to this point.

If any, therefore, have not already made their return, they are urged to do so without further delay. We can still furnish the blank forms for tabular statements, duly stamped and directed, if application is immediately made.

GEORGE DERBY, M.D.
Sec. State Board of Health.
102 Charles Street, Boston, Nov. 20, 1873.

A NEW RECTAL BOUGIE.—When attention first began to be directed towards anatomy, some two thousand years ago, the name rectum was given to the last portion of the intestine, from the mistaken notion, originating in the dissection of animals, that the canal was here straight. This error is perpetuated to this day by instrument makers, who continue to make all rectal bougies perfectly straight. Professor Edmund Andrews, of Chicago (The Medical Examiner, Nov. 1, 1873), demonstrates that these bougies fail to correspond to the cavity which they are intended to explore, for which reason they can rarely be inserted with any safety more than five inches, and are utterly worthless for any exploration beyond that length. He has, therefore, devised a new bougie, consisting of a smooth bulb of hard rubber riveted upon a somewhat flexible staff of metal, to the other end of which is attached an ebony handle. It is found that this instrument will often pass in ten or twelve inches without obstruction, and can be made to press on the abdominal walls from within, so as to be felt by the surgeon’s hand within two inches of the umbilicus, an extent of exploration which no straight instrument can ever approach.

THE HOSPITALS.

BOSTON CITY HOSPITAL.

Operations were performed last Friday, Nov. 28th, in the following cases:—

Phosphorus Necrosis of the Lower Jaw.—The patient was a man who had worked in a friction-match factory, about half the time in the dipping-room. The trouble with the jaw had been noticed about two months ago, commencing about the root of a carious molar tooth. The tooth was extracted; soon the disease invaded the alveolar process of the right side, and extended until, at present, the probe detected denuded bone as far backward as the angle of the jaw. The parts external to the bone appeared much swollen, but there was no sinus.

Dr. G. W. Gay performed excision of the diseased bone. The soft parts were divided along the lower margin of the jaw, the incision being curvili-
near, and stopping short of wounding the facial nerve. The section of the bone was made with a chain-saw, just in front of the first molar tooth. In closing the wound, the ligatures were brought out at the corner of the mouth. The removed portion of the jaw was denuded of its periosteum, except at its summit.

*Hip Disease.*—Dr. Gay excised the head of the femur in a child of seven years, who had suffered from disease of the hip during an unknown period. Treatment by rest and extension had been faithfully tried without benefit. A large abscess had developed in the thigh, from which pus had once been evacuated by the aspirator.

Dr. Gay made a V-shaped incision of the soft parts over the great trochanter, and, after disarticulating, removed the head of the bone by division of the surgical neck with a chain-saw, that section, he remarked, having been followed by better results, in the City Hospital cases, than that below the trochanter, in the shaft of the femur.

The head of the bone was denuded of its cartilage over most of its extent. The upper edge of the acetabulum was carious, and was removed with the gouge.

*Necrosis of the Tibia.*—The disease followed typhoid fever, and involved nearly the entire shaft. Dr. Fifield chiselled away the parts overlying the sequestrum, and removed as much of the latter as was loose. The free opening made in the bone gave sufficient exit to the products of the advancing disease, and tended to prevent the invasion of the epiphyses.

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**Correspondence.**

**Yellow Fever.**

**New Orleans, La., Nov. 14th, 1873.**

**Messrs. Editors,**—In this communication, I will record some experiments upon living animals with the blood from the heart, and the black vomit from the stomach of a patient who died of yellow fever.

**Experiment 1st.**—With a small subcutaneous syringe, I injected beneath the skin of a healthy puppy (female dog) about thirty drops of the blood abstracted from the cavities of the yellow-fever heart, three hours after the death of the patient. No ill effects were observed, and the animal is at present strong and active.

**Experiment 2d.**—In like manner, I injected beneath the skin of an active Guinea-pig about the same quantity of the blood from the yellow-fever heart.

The next day, October 16th, the Guinea-pig appeared lively, and ate its food.

October 17th.—The animal is sluggish, and refuses food.

October 18th.—Animal feeble, moves with difficulty, and is evidently ill from the effects of the subcutaneous injection of yellow-fever blood.

October 19th, 5, A.M.—The Guinea-pig was dead, cold and stiff.

**Post-mortem Examination.**—Body emits a disagreeable odor. Cellular tissue of skin and surface discolored and greatly injected around the points of the injection of the yellow-fever blood. Cellular tissue and skin softened around the point of injection. Under the microscope, the blood and serum fluid from these portions of the cellular tissue were found to contain numerous bacteria and revolving amebiculæ. Cavities of heart distended with dark, loosely coagulated blood. Blood corpuscles presented no special alteration; upon standing upon the glass side, however, crystals of hematin were rapidly formed. The dark blood from the cavities of the heart changed rapidly to the arterial hue, upon exposure to the atmosphere. Liver, dark colored and greatly congested. The microscope showed no accumulation of oil in the textures of the liver. Liver cells distinct, but pale. No bacteria or vegetable or animal organisms were observed in the blood of the heart, or in the blood of the structures of the liver.
Experiment 3d.—Into the subcutaneous tissue of a large, healthy and active male Guinea-pig, I injected about thirty drops of the black vomit, from the stomach of the yellow-fever patient, abstracted three hours after death.

The black vomit thus carefully injected into the cellular tissue of this animal, caused its death in six hours.

Post-mortem Examination.—Diffused redness, and great capillary congestion of the cellular tissue beneath the skin; congestion greatest in the immediate vicinity of the injection. Body emits a foul, putrid odor.

Immediately around the point where the hollow needle had penetrated, where the black vomit had been injected, dark blood had been effused, and the textures presented the appearance of those wounded and poisoned by the fang of the rattlesnake or of the American copperhead. The cavities of the heart were distended with dark, almost black, loosely coagulated blood. Liver, dark slate color and highly congested. Mucous membrane of stomach congested and punctated. No animalcule, bacteria, fungi nor algae were discovered upon microscopic examination of the blood from the cavities of the heart. Decomposition rapid; and, although the animal was examined almost immediately after death, the odor was disagreeable, and resembled that of the black vomit.

Experiment 4th.—I injected into the subcutaneous tissue of a large healthy female Guinea-pig about thirty drops of black vomit, which I had preserved, from a case of black vomit, ejected shortly before death, on the 9th of October. Death caused in six hours.

Post-mortem Examination.—Results similar in all respects to those recorded in the preceding experiment—intense injection in the cellular tissue, around locality of injection, of black vomit; no animalcule, bacteria or vegetable organisms in the blood; putrefaction rapid and marked.

Experiment 5th.—I injected into the subcutaneous tissue of a Guinea-pig about thirty drops of putrid blood, which I had abstracted from the cavities of the heart of a subject who had died, on the 9th of October, in a "congestive" malarial chill. This blood had been preserved in a glass bottle in my laboratory for six days before this experiment. The case, as manifested by the symptoms and by the pathological changes, was undoubted malarial paroxysmal fever.

Death was caused by the putrid blood from the heart of the malarial fever case in eighty hours.

The preceding experiments are of importance in establishing the fact, that black vomit, taken from the stomach immediately after death, or ejected during life, in yellow fever, will, when injected into the subcutaneous tissue, produce as deadly and as rapidly fatal results as putrid blood.

We deduce the following practical conclusions from the preceding experiments:

1st. Black vomit, when absorbed into the circulatory system, may act as a deadly septic poison.

2d. As the capillaries of the stomach, in yellow fever, are often ruptured, and the epithelium of the mucous membrane denuded, it is possible that, in some cases, the absorption of black vomit, especially after it has undergone putrefactive changes in the stomach, may be an important cause of the fatal issue in this disease.

3d. If remedies could be used which would prevent putrefactive changes in the black vomit whilst it is forming in the stomach of the yellow-fever patient and rendered innocuous, a certain proportion of cases might be rescued, even after the appearance of black vomit.

The preceding cases, experiments and reasoning, led me to employ, in the treatment of yellow fever, certain well-known antiseptic remedies.

Carbolic acid has been used by myself and others in the treatment of paroxysmal fever; but, from its caustic action on the mucous membranes, the readiness with which it loses its antiseptic properties by combining with albumen and fats, its nauseous taste, even when freely diluted, and its poisonous effects when administered in large doses, decided me not to use this agent,
but to substitute one of its more stable compounds, which may be administered in large doses without producing toxic effects or inducing nausea.

It is well known that the sulpho-carbolate of sodium may be administered in large doses, and that the sulphur compound is eliminated by the kidneys and the carbolic acid chiefly by the lungs; and I determined to give this remedy as fair trial as opportunity might offer.

Respectfully,                JOSEPH JONES, M.D.

STRASSBURG UNIVERSITY.

VIENNA, OCTOBER, 1873.

MRS. EDITORS,—Among the German universities, that recently established at Strassburg is well worthy the attention of any who may be looking forward to a somewhat prolonged stay in Europe; this because, unlike Vienna, short practical courses form a comparatively unimportant feature in the medical department in Strassburg, and a stay of a full semester, at least, is necessary to enable one to derive full benefit therefrom.

During the last semester, four Americans were in attendance, two of whom came, like myself, attracted by the names of the professors seen in the catalogue; the fourth came as a private pupil of Waldeyer, from Breslau, at the opening of the University, a year and a half ago. We, like the German students, were obliged to matriculate, a formality which opened to us the very large University reading-room and library, and was attended with no difficulty in taking up our connection with the University at any time we chose.

The medical faculty contains the names of Waldeyer, Recklinhausen, Lücke, Hoppe-Seyler, Leyden, Gusserow, all of whom are, I think, sufficiently well known to most of your readers to render a more elaborate introduction on my part unnecessary; for most Americans, Waldeyer and Recklinhausen are the chief attractions.

Prof. Waldeyer fills the chair of anatomy, and lectures on histology chiefly, the descriptive anatomy being attended to by an Elsassian formerly connected with the French Ecole de Médecine, the place of which the present medical faculty has taken.

Prof. Waldeyer has a large laboratory, divided into several rooms, capable of accommodating thirty pupils, each of whom has a separate table furnished with a lock-draw and the ordinary reagents and coloring fluids. A good microscope is furnished for the use of those who have none of their own. At one end of one of the rooms, is a set of shelves holding all the reagents of a complete chemical laboratory, and the preserving and more rarely used coloring and injecting fluids; in this same room, are other shelves holding dry and wet, injected and uninjected histological specimens for general use. Hand injecting apparatus, and an apparatus worked by a column of mercury are also here. In another separate room are kept the rabbits, doves, Guinea-pigs, frogs and lizards, which are furnished gratis to the most liberal extent. The work for the semester is systematically arranged beforehand, each week's work being written out and posted up in a conspicuous place in the laboratory. At the beginning of the week, the professor gives a lecture of two or three hours on the tissues to be examined during that week, writes down all formulas on the board, draws the macro- and microscopical appearances as illustrative of the lecture, and gives all the new ideas and their authors. For the rest of the week, the laboratory is open from 6, A.M., till 8, P.M., and students work when they please. The Professor goes about to each pupil at certain fixed times, at least four times daily, and gives every needful explanation and advice; he is aided by a competent assistant, who is always present when the Professor is otherwise engaged. Meanwhile, each one is encouraged to make and put up preparations for preservation and to make injections for himself; in this way, in one semester, one gets at least a tolerably clear idea of normal histology, and a capital drill in microscopical manipulation. Waldeyer has also other farther advanced pupils, who are making special studies, as of cancer, embryology, medulla oblongata, cerebrum, cerebellum. At present, he is paying much attention to embryology, a subject in which he is greatly in-
terested, and to the knowledge of which he has contributed very much. The advantage of this laboratory is, that one has the personal instruction of one of the best and most celebrated microscopists in Germany at a very small cost and the free use of material, all of which one cannot have in Berlin and Vienna, and, I am told, also not in Bonn; in each of these latter places, the pupils are turned over to the first assistant, and at rare intervals have the advantage of personal intercourse with the professor himself, and at the same time each must prepare his own material.

Prof. Recklinghausen, who teaches pathology, has one assistant, draws his material from a public hospital of 800 beds, and has also specimens sent him from the surrounding country; he has places for eight or ten private pupils working up special subjects, to whom he gives a great deal of time; he lectures three hours daily, makes autopsies himself and works constantly. During the past semester, he gave a course on microscopical pathology of six hours a week, personally superintending, and aided by a competent assistant. He gave, also, a course on demonstrative pathological anatomy and physiology, similar to that of Prof. Virchow, of Berlin, and an hour's lecture, every afternoon, on special pathological anatomy and physiology. Each of these courses was systematic, and elaborately illustrated by microscopical specimens. On Monday mornings, three hours was devoted to the personal superintendence of autopsies done by the students. The material illustrating the demonstrative course is quite as abundant as one could wish, is fresh, and, after lectures, is free to the pupils, except, naturally, such specimens as are valuable for the museum. The pathological museum is very large, admirably arranged, perfectly free of access, and constantly used as illustrative of the lectures.

Lücke, Professor of Surgery, has large and well-filled wards, and lectures three hours daily; two hours devoted to an ambulatory clinic, very fully attended and equivalent to our Dispensaries and Out-Patient Department in the hospitals. An hour's lecture daily is given in the afternoon on General and Special Surgery; in the evening, the professor gives a course on Operative Surgery. Microscopical Surgical Pathology forms an important feature in the instruction.

Hoppe-Seyler, Professor of Materia Medica, has a large, well-arranged and well-attended laboratory in which students are constantly at work with free material.

Leyden, Professor of Clinical Medicine, pays attention especially to Nervous Diseases, and so is not so interesting to the general student.

Gusserow has an admirably arranged and well-filled Lying-in Hospital, and wards for Women's Diseases; he draws his material not alone from Strassburg, a town of about 50,000 inhabitants, but the whole of Elsass contributes to keep the wards full, as is also the case with the General Hospital. He gives a clinical course on Midwifery, very fully illustrated by plates, models and patients; personally superintends a course on Operative Midwifery; gives a systematic course of six hours a week on Women's Diseases, illustrated by Out-Patients and those from his wards, and gives a Touch Course in Midwifery of an hour every Monday afternoon.

A very good venereal clinic of six hours a week, with an out-patient department attached, is given by a privat docent.

The only drawback in Strassburg is the lack of sufficient instruction in children's diseases.

All the laboritories are very good indeed, and are well supplied.

For the student who wishes to work in general pathology, to work up any subject in special pathology or histology, there is at present no place in Germany so good as Strassburg. This is not alone my own conviction, but that of two of my fellow-students from America, who have been abroad already several years with this special object. I will also add that the two sons of Prof. Virchow have been students in the medical faculty since the beginning of the academical year, which fact might, perhaps, give weight to the above opinion.

Respectfully,

ELBRIDGE G. CUTLER, M.D.
CORRESPONDENCE.

LETTER FROM BERKSHIRE.

PITTSFIELD, MASS., NOV. 5th, 1873.

MESSRS. EDITORS,—The Pittsfield Medical Association, after a summer's rest, has resumed its fortnightly meetings. The Association, since its organization, two years ago, has proved a decided success. It comprises the nine members of the Mass. Med. Society residing in Pittsfield; and its meetings are always well attended, seldom more than one or two being absent, and not infrequently every member being present. The meetings are held at the houses of the members, in rotation, and the exercises consist in free conversation and discussion upon medical topics, the report of cases, and the occasional reading of a paper. The supper, also, is a feature which all appreciate. The Association subscribes to the leading medical journals, whereby the profession in our town is kept brightened up intellectually; and, by free social intercourse, those petty jealousies, which too often impair the harmony of the profession, in the smaller places, being, in fact, the worst form of medical kleinstadterei, are happily avoided.

On Wednesday of last week, the Berkshire District Medical Society held its monthly meeting. These have been held regularly for many years, and with unflagging interest. Sometimes, it has been impossible to get a quorum together in August, the busiest month; but this year there has been no break. The attendance averages a dozen or fifteen members, which, for a hill-country, where the members are scattered, and the distances great, is doing pretty well. Some of the members come twenty-five miles, and nearly all, outside of Pittsfield, have to give up the entire day to the meeting. This is a sacrifice, which, to a country practitioner, is always difficult, and very often an absolute impossibility. Still, they come when they can, and, after a free discussion of cases and comparison of opinions, not to mention a social lunch (for we do nothing without eating, in Berkshire), we all feel wiser, happier and better-natured for having attended the meeting. The elder members are as prompt as the younger; and one of the most regular attendants is Dr. H. L. Sabin, who, in his 74th year, comes all the way from Williamstown, to give to the meetings the benefit of his ripe wisdom, and to enliven them with his perpetual and contagious youthfulness.

I believe that monthly meetings are not held in all of the counties, but should be glad to find this a mistaken impression. We consider them, here, a very valuable agent in keeping up with the times and maintaining a proper esprit de corps. It is especially important at this time, when charlatanism grows daily more bold and blatant, that the standard of the profession should be raised higher than ever, and that we should increase in respectability and moral weight as a body, by cultivating scientific knowledge, through the medium of constant study, and an honest comparison of our own methods with those of our brethren, and especially of those who are recognized as leaders of the profession. It is by thus maintaining an obvious superiority that we are to triumph over quackery, rather than by any hand-to-hand contest with men whose chief strength lies in their uncrupulousness.

Two months ago, our District Society followed to their last resting place the remains of the Rev. Dr. Todd, who, connected with the Society as an honorary member, had ever its best interests at heart, and was respected and beloved by all. The Society's resolutions of respect for his memory have been published in the JOURNAL. The disease which terminated his life was a typhlo-enteritis, with extensive ulceration, and, finally, perforation of the wall of the cecum. The case will shortly be reported in full. He was first attacked on the 18th of May, but preached and spoke in public several times after this, when he would have been better in bed. When he officiated as chaplain at the Annual Meeting of the Massachusetts Medical Society, on June 4th, and made his vigorous after-dinner speech, which all will remember as abounding in wit and wisdom, he was suffering from constant and exhausting pain, which made the journey to Boston and back, and his efforts there, a veritable torture. When it is known that, for nearly twenty years, he had never had an operation of
the bowels without the aid of an enema, that he had been a martyr
to hemorrhoids, and had also a double inguinal hernia, the vast amount
of intellectual labor which he accomplished and the uniform cheerfulness he
maintained are truly surprising.

Dr. Todd's ideas of recreation were remarkably sound. He was a pioneer
in the custom in searching for rest and health in the wilderness. For the
last thirty years of his life, he spent a part of every summer in the woods,
either in the Adirondacks, or the forests of Maine, Nova Scotia or Canada.
On reaching his camping-ground, he would spend the first day or two in almost
unbroken sleep, extended beneath the pines, in whose balsamic fragrance he
always delighted. Then he took his rifle, and entered with all his energies
into the chase, returning to his parish, at the end of a few weeks, exuberant
in vigor of body and mind. He never wearied of these expeditions, but said
he never enjoyed the woods so much in his life as last autumn, when he pehe-
trated the wilderness of Canada West, a hundred miles beyond the outposts
of civilization. Most members of the medical profession think it impossi-
ble to leave their practice for a month every summer or fall, and scarcely
any could spare the time or money to imitate Sir Henry Holland in his an-
nual two months' journeyings; but if more would follow Dr. Todd's exam-
ple, and become backwoodsmen for a short time every year, they would be
the gainers for the sacrifice, in length of days, health, happiness and usef-
lessness.

BERKSHIRE.

The Use of the Gum-Lancet.∗

MESSRS. EDITORS.—Your ingenious correspondent, "Gum-Lancet," in
the Journal of the 13th ult., asks for information on the subject of lanc-
ing gums.

1st. "Who cuts gums?" The present writer, with a respectable number
of brother physicians, both at home and abroad.

2d. "Why does he do it?" On the same principle that a surgeon cuts for
a bullet, a splinter, a piece of dead bone, a collection of pus or any other
foreign body or substance imbedded in the tissues and tending to keep up
inflammation and constitutional disturbance. The tooth to all intents is a
foreign body, whose effort to work its way through the gum causes local
inflammation, sympathetic fever and extreme nervous irritation, so distress-
ing and so dangerous in a young child. It is a common belief that teething
causes convulsions; why not, if the fever runs high enough, as well as any
form of fever in childhood? I am sure I have seen such cases. What is the
natural indication? To make a free opening for the escaping tooth, thereby
abolishing the local irritation and with it the attendant train of constitutional
symptoms. A fortiori, if the child is suffering at the same time from any
other disease, might the operation be done as a means of diminishing every
extraneous source of irritation.

3d. "Will anyone give us his personal experience of its advantages over
the let-alone system, if it has any, and oblige, &c.?" As to anyone having
a "system" for lancing gums, simply because a child happens to be teething,
nothing could be more absurd. If there is no trouble, let him alone by all
means. If, on the other hand, the gum is inflamed, with an undue amount of
constitutinal sympathy, I have often found it useful to cut it. Among the
good effects I have witnessed are, a diminution of heat, fever, pain and ner-
vous irritability, with a more rapid extrusion of the offending tooth; in
complicated cases, the relief of convulsions and the alleviation of various
acute diseases, especially those of the stomach and bowels. In many cases,
no benefit whatever is experienced, but I never knew or heard of its doing
harm in a single case.

Thanking your correspondent for the pleasurable opportunity thus afford-
ed of obliging him, I remain

Yours sincerely,

E. T. W.

∗ We publish the above in preference to a very good and more elaborate letter on the
subject, simply on account of its brevity.—E. S.
Medical Miscellany.

We reproduce, according to request, the following "pome" which appeared in our columns some fifteen years ago, credited to the Detroit Tribune. We hope that it may soften the hearts of "sextants" in the season of closed tabernacles and close air.

"A APPEAL FOR ARE TO THE SEXTANTS OF THE OLD BRICK MEETINHOUSE.

BY A. GASPER.

O sextant of the meetinhouse, which sweeps
And dusts, or is supposed to! and makes fiers,
And lites the gass, and sometimes leaves a screw loose,
in which case it smells orful—worse than lamp-ile;
And wrings the Bel and toles it when men dyes
to the grief of survivin pardiners, and sweeps pathes;
And for the servases gits $100 per annum,
Wich them that thinks deer, let em try it;
Getin up befoar starlite in all wethers and
Kindlin fiers when the wether is as cold
As zero, and like as not green wood for kindlers;
I wouldn't be hired to do it for no some—
But o sextant! there are 1 kermoddity
Wich's more than gold, wich doant cost nothin,
Worth more than anything except the Sole of Mann!
i mean pewer Are, sextant, i mean pewer Are!
O it is plenty out o dores, so plenty it doant no
What on airth to do with itself, but flys about
Scatterin leaves and blowin off men's hatts;
in short, its jest 'free as are' out dores.
But o sextant, in our church its scarce as piety,
scarce as bank bills when agints beg for missuns,
Wich some say is purty often (taint nothin to me,
Wat I give aint nothin to nobody) but o sextant,
u shet 500 men, wimmen and children,
Speshally the latter, up in a tite place.
Some has bad breths, some aint 2 swete,
Some is fevery, some is scrofulus, some has bad teeth,
And some haint none, and some aint over clean;
But every 1 on em brethees in & out and out and in,
Say 50 times a minit, or 1 million and a half brethes an our.
Now how long will a church ful of are last at that rate,
I ask you, say 15 minits, and then what's to be did?
Why then they must breathe it all over agin,
And then agin, and so on, till each has took it down
At least 10 times, and let it up agin, and wants more.
The same individuable doant have the privelidge
of brethen his own air, and no ones else;
Each one must take watever comes to him;
O Sextant, doant you know our lungs is belluses,
To blo the fier of life, and keep it from
goin out; and how can belluses blo without wind?
And aint wind are? i put it to your conschens.
Are is the same to us as milk to babies,
Or water is to fish, or pendlums to clox—
Or roots and airbs unto an injun Doctor,
Or little pills unto an omepath,
Or boys to gurls. Are is for us to brethe.
Wat signifies who preeches if I cant brethe?
Wats Pol? Wats Pollus? to sinners who are ded? Ded for want of breath; why sextant, when we dye Its only cause we cant breth no more—that's all. And now, o sextant, let me beg of you 2 let a little are into our church. (Fewer are is serin proper for the pews) And do it weak days and Sundays tow— It aint much trouble—only make a hole And the are will come in of itself; (It lus to come in where it can get warm;) And o how it will rouse the people up, And sperrit up the preacher, and stop garps, And yawns, and figgits, as effectool As wind on the dry Boans the Profit tells of."

GLANDERS IN A WOMAN.—A fatal case of glanders occurring in a woman is recorded in the Irish Hospital Gazette (Nov. 15, 1873). The disease was thought to have been contracted in the loft over a stable, where the woman had been forced to spend the night.

EXTRA-UTERINE PREGNANCY.—An interesting case of Extra-Uterine Pregnancy is reported by Dr. H. E. Woodbury in the Phil. Med. Times (Nov. 22, 1873). The patient, a woman aged 30, having expelled per rectum a fuctus of ten weeks, made a good recovery.

POISONING BY HYOSCYAMUS.—Edmund White, L.R.C.P., Edin., reports in the London Lancet for July, 1873, a case of poisoning by hyoscyamus. An ounce and a half of the tincture was taken, by mistake, for a black draught, about 5 o'clock in the morning. Heat of hands, pricking sensation in hands, feet and legs, came on in about ten minutes. Shortly after she was delirious. Purplish rash followed over whole body. Absolute loss of muscular power succeeded. The full effect of the poisoning seems to have been reached in about eleven hours. It was six days before she regained any use of the legs, and then could not stand without support on both sides.

MARRIED.—In New York, 25th ult., at Grace Church, Dr. Henry Tuck, of Boston, to Emma R. Beers, of New York.

DIED.—In Lowell, Nov. 28th, Dr. John W. Graves, aged 63.—In Topsham, Me., Nov. 23th, Dr. Joseph McKean, aged 76.—In St. Louis, Mo., Nov. 17th, Dr. Moses N. Hunt, only son of Dr. Eben Hunt, of Danversport, Mass.

MORTALITY IN MASSACHUSETTS.—Deaths in fifteen Cities and Towns for the week ending November 22, 1873.

Boston, 132—Charlestown, 16—Worcester, 23—Lowell, 17—Milford, 1—Cambridge, 10—Salem, 12—Lawrence, 7—Springfield, 8—Lynn, 10—Fitchburg, 3—Newburyport, 7—Somerville, 6—Fall River, 28—Holyoke, 4. Total, 284.

Prevalent Diseases.—Consumption, 59—scarlet fever, 21—pneumonia, 21—typhoid fever, 15—croup and diphtheria, 10.

Of the deaths from scarlet fever, eight were in Boston and eight in Fall River.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Nov. 29th, 151. Males, 78; females, 73. Accident, 5—cases, 1—apoplexy, 3—disease of the bowels, 1—inflammation of the bowels, 1—disease of the brain, 2—bronchitis, 7—burned, 1—cancer, 3—cholera infantum, 1—consumption, 3—convulsions, 4—croup, 2—dropsy, 1—dropsy of the brain, 3—dehility, 4—erysipelas, 2—fever, 1—scarlet fever, 9—typhoid fever, 4—bilious fever, 1—gout, 1—gastritis, 2—disease of the heart, 5—intemperance, 3—disease of the kidneys, 2—congestion of the lungs, 1—inflammation of the lungs, 16—marasmus, 8—measles, 1—old age, 3—paralysis, 3—pleurisy, 1—premature birth, 3—peritonitis, 1—puerperal disease, 1—disease of the prostate, 1—puerperal diseases, 7—suicide, 1—ulcers, 1—whooping cough, 1—unknown, 3.

Under 5 years of age, 51—between 5 and 20 years, 19—between 20 and 40 years, 39—between 40 and 60 years, 18—over 60 years, 24. Born in the United States, 99—Ireland, 34—other places, 18.
PANCREATINE AND ITS USEFULNESS.

By Horace Dobell, M.D.,

Senior Physician to the Royal Hospital for Diseases of the Chest, London.

Having for many years experimented with the pancreas, chemically, physiologically and therapeutically, and published numerous observations on the subject, I was much struck by an article in the "Boston Medical and Surgical Journal," June 26, 1873, entitled "Pancreatine and its Uselessness," by Dr. E. H. Hoskin.

In the Lancet, Sept. 10, 1864, I referred to the experiments made by myself with a view of learning whether the presence of the gastric juice in the stomach would interfere with the special properties of pancreatic juice; the result of those experiments being that "beef-fat emulsion made with pancreatic juice remained complete after standing two days mixed with pepsine, hydrochloric acid and water."

My conclusions in this respect were confirmed, in 1869, by M. Chauvin and M. Morat, in a paper read before the Academy of Sciences of Paris. The results of their experiments showed that "the action of the pancreatic juice is not checked by the presence of gastric juice, or by hydrochloric acid, considerably diluted," and that, "in the digestion that ordinarily takes place in the stomach, the pancreatic juice preserves its energies intact, notwithstanding the presence of gastric juice, and may initiate in the interior of the stomach a complete digestion of the three species of alimentary substances; and they state that, in a clinical point of view, they have (as I had done before) obtained remarkable results, with the aid of pancreatic juice and extract." (Lancet, Oct. 1869.)

Again, I have demonstrated that the pancreatic juice in its fresh state may be either acid or alkaline, although nearly always acid soon after removal from the body, but that its acidity or alkalinity has nothing to do with its property of emulsifying fat. "The pancreas, in acting upon fat, does not decompose it into fatty acid and glycerine." (Proceedings of the Royal Society, No. 97, 1868, and Lancet, October, 1869.)

These conclusions having been arrived at by careful experiment and research, I was not a little surprised to find that Dr. Hoskin had found completely different results from experiments which, at first
Dr. Hoskin arrives at this conclusion from the results of two test experiments: in one of these, he digested a portion of fresh pancreas in water at a temperature of 100° Fahrenheit, and then made an emulsion by adding olive oil; in the other, he digested fresh pancreas in water at a temperature of 100° F., as before, but with the addition of some pepsine and hydrochloric acid; and in this case he found that on adding olive oil no emulsion could be made. Hence, it appeared to him, quite naturally, that the presence of pepsine and hydrochloric acid destroyed the emulsifying power of the pancreas. At first sight, this appears to be a fair conclusion from the experiments, but when we come to examine the exact details of the experiments, we arrive at a totally different opinion, viz., that the experiments and their results are utterly worthless. Both experiments are deprived of any value by the fact that he digested the pancreas, &c. for seven hours. I have proved (with the assistance of Mr. Julius Schweitzer, Fellow of the Chemical Society, who has for years aided me in my experiments on these subjects) that organic substances, such as pancreas, pepsine and pancreatine, cannot be exposed for seven hours to a temperature of 100° F. in water without undergoing decomposition and losing their natural properties and functions. Thus, in both of Dr. Hoskin’s experiments, he destroyed the properties of his ingredients before he added the oil. It will be asked, then, how it was that he “emulsified” the olive oil with the first specimen of pancreas? The answer is that he was deceived in supposing that it was emulsified in the sense of a pancreatic emulsion. It is a very delicate point, upon which mistake is very easy to one not accustomed to operate upon fats with the pancreas. What Dr. Hoskin took for a pancreatic emulsion of oil was only a mechanical mixture of oil with the glutinous fluid produced by digesting pancreas for seven hours in water. Had he tried to emulsify solid fat, such as lard, he would have discovered his mistake, for he would have failed to make an emulsion at all. All experiments of this sort should be made with solid fat to be reliable, for any fluid oil is easily shaken together with water to form an emulsion; and if the water contains some glairy or mucilaginous matter, as in Dr. Hoskin’s experiments, the mixing takes place more readily, and is more permanent. I have carefully repeated Dr. Hoskin’s experiment, with lard instead of oil, and I find that at the end of the seven hours’ digestion the emulsifying property of the pancreas is entirely, or almost entirely, destroyed. On the other hand, if the digestion of the pan-
creas is stopped at the third hour, the mixture will readily emulsify the lard; and this pancreatic emulsification is not in the least interfered with if pepsine and hydrochloric acid are digested with the pancreas.

Let Dr. Hoskin, or anyone who wishes to arrive at a sound conclusion on this important matter, perform the following experiment: Take half an ounce of fresh pancreas of the pig; 20 grains of Bullock's pure pepsinum porci; 8 drops of hydrochloric acid; 3 ounces of water. Mix the pancreas, lard and pepsine well together in a mortar, then add the water containing the 8 drops of hydrochloric acid. Digest for four hours, at a temperature of 100° F. At about the third hour, the pancreas and fat will be found to be all dissolved, forming a mixture which can be easily strained through muslin. From this mixture, the pure pancreaticized fat may be subsequently separated by solution in ether, and will be found to mix readily with water, forming a true pancreatic emulsion. Unless the fat retains its property of mixing with water after solution in ether, it cannot be considered to have been properly pancreaticized. It is necessary, however, to use great caution in regulating the temperature at which the ether is evaporated, for the pancreaticization of the fat may be destroyed by heat. (See my paper on the Special Action of the Pancreas on Fat and Starch, Proceedings of the Royal Soc., 1868, re-printed in the 5th Edition of my little work on Diet and Regimen, p. 185.)

To return to the question of the alkalinity of pancreatic digestion, upon which there has been so much misapprehension, I will quote the opinion of Mr. Schweitzer, expressed in a letter to me on the subject in the following words: "During the seven or eight years that I have been daily preparing large quantities of pancreatic emulsion, I have found that the pig's pancreas has usually an acid reaction; sometimes, but rarely, it has a neutral and even an alkaline reaction; but the emulsifying power of the pancreas is the same in all the cases, and is not at all dependent upon acidity or alkalinity. My experiments on diastase, pepsine and pancreaticine lead me to believe that neither of these digestive agents hinders the activity of the others; on the contrary, they seem rather to assist each other, and it is quite certain that the presence of pepsine does not interfere with the action of pancreaticine any more than the saliva interferes with stomach digestion."

In concluding his paper, Dr. Hoskin makes the following remark: "I think it is the duty of the physician to look into the properties of the medicines he prescribes, and not be content with the assertion of those who make a business of making most elegant pharmaceutical preparations, but very often most useless therapeutical agents." In this remark I most warmly agree, and it is especially important in the case now under consideration, in which we are dealing with remedies for the most insidious and fatal diseases. I therefore feel bound to enter a protest against the use of my name in connection with a preparation, now being sold in America, with the following
label, "Pancreatic Emulsion, a new remedial agent, originated by
Dr. Dobell, and prepared by J. S. Hawley, M.D., Greenpoint, N. Y."
In the first place, Dr. Hawley has not the slightest authority from
me for the use of my name upon his label, and I particularly object
to it, and I should do so even if the preparation were what it profess-
es to be, viz., the pancreatic emulsion originated by me. But I regret
to say that a most careful examination of Dr. Hawley's preparation
obliges me most emphatically to condemn it as in no way represent-
ing the preparation which I originated, and which I strongly recom-
mand. It is certain to disappoint those who use it, not only by
disgusting the patient, but by utterly failing as a remedial agent in
wasting diseases. I am quite ready to believe that Dr. Hawley intend-
ed to produce a reliable preparation, but before he put it forward with
the authority of my name, he should certainly have submitted it to
me for approval. It is well known that I have no pecuniary interest
in pancreatine and pancreatic emulsion, and that my only desire is to
see what I have proved to be most valuable remedial agents prepared
in such a manner that they shall be reliable, and enable the pub-
lic and the whole profession to benefit by their use; therefore it is
of no consequence to me who makes or sells these preparations so
that they are pure and good, but I feel bound to protest against in-
sert and unreliable imitations of important remedies.

The following are the results of an examination of Dr. Hawley's
Pancreatic Emulsion, separately made by two Fellows of the Chemi-
cal Society and confirmed by myself:—"A granular, semi-solid dark
mixture of solid fat and glycerine, having a strong smell of rancid
fat. It was not an emulsion, for fat and glycerine were separately
contained in it; whatever it might have been at first, there were no
traces of good emulsification when examined. It differed from true
pancreatic emulsion in the following essential particulars:—(a) It was
incapable of mixture with water. (b) It contained 30 per cent. of
glycerine. (c) It is put up and kept in corked bottles, with a piece
of tin foil between the emulsion and the cork, without any injury
occurring to either the cork or the foil, whereas pancreatic emulsion
rapidly destroys both. Dr. Hawley's preparation is, therefore, alto-
tgether a different article from that prescribed by Dr. Dobell." I
have not had an opportunity of examining "Hawley's Pancreatine,"
used by Dr. Hoskin in his third experiment, but if it is in any way
comparable with his so-called "Pancreatic Emulsion," it is certain-
ly worthless.

Dr. Hoskin says:—"Dr. Dobell recommends (in his work on
Tuberculosis) the giving of pancreatine, but he does not so urgently
speak of it as of the pancreatized solid fat, and, in fact, I think his
position in regard to that is somewhat equivocal." I am at a loss to
understand Dr. Hoskin's meaning in the use of the word "equivocal."
I think he must have used the word by mistake, because there
was certainly nothing "equivocal" in my position, as he will see by
RUPTURE OF THE HEART. 577

reference to my paper to the Royal Society, already quoted, and to my work on Tuberculosis, 2d Edition, p. xii., Introduction, and p. 68 of the work itself. In that work, I was especially relating the effects of pancreatic emulsion as used at the Royal Hospital for Diseases of the Chest in the treatment of consumption, and pancreatine was only mentioned in passing. Since that work was published, I have used pancreatine extensively in the treatment of different forms of dyspepsia and wasting fever from mal-assimilation. When properly prepared, it is certainly an extremely valuable remedy. It far exceeds pepsine in its results, because it assists in the digestion of carbohydrates, hydrocarbons and albuminoids. When required more especially for digestion of albuminoids and carbohydrates, it should be given directly after food; where it is the hydrocarbons which especially require its use, it should be given one hour after the meal; when given to assist the digestion of cod-liver oil, it should be mixed with the dose of oil at the time of administration. (See British Medical Journal, Feb. 8, 1868.) In my practice, I always use Savory & Moore's pancreatine powder, and I have no confidence in any other form. "All attempts to isolate the several properties of the pancreas have failed, no one of such products having been found to possess in perfection the property of acting upon fat, &c., in the manner described in this paper as peculiar to the pancreas. By the term 'pancreatine,' then, I desire to represent the entire property of the pancreas, extracted in a convenient form for keeping, for experiment, and for administration as a remedial agent."—(Proceedings of Royal Society, No. 97, already referred to.)

RUPTURE OF THE RIGHT AURICLE OF THE HEART FROM SUDDEN COMPRESSION OF THE THORAX.

BY ROBERT AMORY, M.D., Brookline.

LAST MAY I was called, between the hours of 3 and 4 in the morning, to a railroad station in Longwood. On my arrival, the only history to be obtained was as follows: A man, about 23 years of age, was trying to "couple" a passenger car, having a Miller platform, to another car in front with a common platform. In doing this, he stood between the two cars, facing the forward one, with the pin held up in one hand. The engine backed the forward car on to the hinder one, thus compressing the thorax of the man between them; but not so forcibly, as was afterward ascertained by a post-mortem, as to break any bones either in front or back of the thorax. Judging from the circumstances, the platform of the forward car was on a level just below that of the diaphragm, whilst the level of the other platform behind must have been at least four inches higher, bringing the compression behind at the scapular region. I arrived about twenty minutes after the accident, and found the body
of the man lying upon its back on the floor, in a state of commencing post-mortem rigidity. This condition of rigidity I reserve for future consideration, and will relate the facts of the autopsy, which was performed by Dr. Trull and myself at 10 o'clock the same morning, six and a half hours after the accident.

Complete muscular rigidity, the right arm extended upwards in a state of semi-flexion at the elbow-joint, the left arm very slightly flexed at the elbow-joint, but hanging down by the side. No marks of external bruise or abrasion upon any part of the skin. No appearance of fracture of any bone. After making an incision along the median line over the sternum and exposing the bones of the thorax, we cautiously removed the sternum by cutting the costal cartilages, and the anterior mediastinum was exposed to view. The external surface of the pericardium was whitened and covered here and there with white flocculent or fibrinous particles. Its appearance was rough. On opening the pericardial sac, about a pint of clear serum poured out, which was soon followed by reddened serum, and afterwards by dark thick blood. This latter seemed to have been present in different strata, the upper being thin serum, and the lower thick blood and a few coagula. After cleaning out the interior of the sac, the dark blood was seen to pour out from an opening on the anterior aspect of the right auricle. After the auricle had been emptied of blood, we examined this opening, and found that in the inner layers of tissue the opening was wider than in the outer layers. A careful examination of the cavities of the heart showed no appearance of valvular disease or fatty degeneration.

I assume that the sudden and severe compression of the thoracic walls was transmitted to the thoracic viscera at a time when the right auricle was full of blood pouring in from the vena cava, and consequently when its walls were thinnest and weakest; the blood not being emptied fast enough caused a rupture of the auricular sac from the sudden compression. As the court of inquest were waiting for the result of the autopsy, we had no time for further examination, the rupture of the auricle being sufficient cause of death. From our hasty examination, no other lesion of the thoracic viscera was determined.

Prevention of Tormenting of Horses, etc., by Flies.—M. Lochard, a veterinary surgeon, describes a simple and economical means of preventing the suffering which is induced in horses and other animals by the persecution of flies, and which our provincial readers will probably be induced to try. It consists in painting with a pencil the insides of the ears, or other parts liable to be bitten, with a few drops of empyreumatic juniper oil (huile de cade). Insects will not approach the parts so painted, and the cost of the oil is trifling.—Journal de Connaissances Méd.; Cincinnati Clinic.
REPORT ON DERMATOLOGY.

By James C. White, M.D.

[Concluded from p. 503.]

Eczema of the Eye-lids.—In a long article on this affection, by J. Gayat, of Lyon (Annales de Derm. et de Syph. Quatrième année, No. 5), the author ascribes its artificial varieties to the following causes: The mucopurulent secretion furnished by a lachrymal fistula or a neighboring ulcer; a chronic epiphora; the purulent secretion of a conjunctivitis; the rubbing of other eruptive manifestations (pityriasis, psoriasis, herpes, &c.); the application of remedies used in the treatment of conjunctivitis and non-eczematous eruptions; direct and violent contact with some foreign body; the retention of cutaneous secretions by bandages.

In the treatment of this stubborn affection, the difficulties of which he appreciates, Dr. Gayat has little that is new to recommend.

Inoculability of the Pustules of Ecthyma.—Vidal (Annales de Derm. et de Syph., No. 5, 1873) gives the results of experiments made by himself and others in French hospitals, from which he draws the following conclusions:

1st. The pustules of ecthyma in typhoid fever, and those of simple ecthyma, are auto-inoculable.

2d. The pustule of inoculation in its phases of development follows an identical course with that of the spontaneous pustule. The first day there is seen, some hours after the inoculation, at the point of insertion, a red point, already a little indurated, which is generally the seat of a lively itching. The second day, the redness extends to about a centimetre in diameter, and a hard nodule forms and rises above the surface of the skin. The third day, the redness is more extensive, the hard and inflamed elevation becomes pointed, and forms the base of a small vesicle, which contains a little turbid serum. The fourth day, the pustule of ecthyma assumes its complete and adult character, and furnishes an inoculable pus. On the ninth or tenth day, it dries up, and the crusts fall from the sixteenth to the twentieth day.

3d. The liquid taken from pustules of the second generation is also auto-inoculable.

4th. Its activity diminishes gradually in successive inoculations; and its power of reproduction ceases at the third or fourth generation.

Cutaneous Horns.—Dr. Bergh, of Copenhagen (Archiv für Dermat. und Syph. V. Jahr., Zweites Heft), contributes two new cases to the list of these growths. With regard to their genesis, his observations confirm those of Lebert that they are both of follicular and of papillary origin; that is, a hyperplasy of the epithelium of the rete which descends to line the glands, as well as of that which ascends to cover the papillæ. The former seems to be more commonly their starting-point. They often grow from the bottom of a seaceous cyst, either enclosed within its capsule, or, subsequently to its rupture, as a secondary product, just as the papillary variety is often developed upon a long-standing wart. The relation of cutaneous horns to epithelioma is noticed, the latter being an occasional occurrence after the removal of the former, just as it may develop upon the seat of many chronic epidermal growths, or in lupus.

The author gives an interesting and complete account of the many and various affections which have been classed under this general title. Concerning their etiology, he says: The causes of congenital melanoderma are almost entirely unknown. Of those which are acquired, he makes two grand divisions, those due to an external cause, those due to an internal cause. The former may be produced by direct contact with certain substances, such as vesicants and other irritating substances; to cutaneous affections, such as prurigo, lichen, eczema, &c.; to the presence of parasites upon the skin, both vegetable and animal; to the action of solar light and incandescent bodies. The latter may be due to a physiological condition, pregnancy; to a pathological state; the cancerous, tuberculous, scrofulous and palustrine cachexias, or to other conditions of profound debility; to the absorption of medical or toxical substances, as salts of silver or aniline.

Means for the Removal of Syphilitic Pigment Stains.—M. Langlebert suggests (Lyon Médical, from Gazette des Hôpitaux) the application of blisters to old stains of syphilitic origin, and the continuance of the suppuration by the subsequent use of stimulating dressings for a week. In this way he has caused brown stains of several years' duration to disappear.


This monograph contains observations made upon five cases of so-called molluscum, with descriptions of the anatomy of the growths and illustrations of their appearances in section by the microscope. According to their minute anatomy, these tumors were fibroma, sarcomatous fibroma, fibro-myoma, and angioma. The writer reviews the literature of the various affections comprised under the name molluscum, and arranges them under the following classes: sarcomes, fibromes, myomes, angiomes, lymph-adénomes, tumeurs acnéiques (sebaceous affections), and tumeurs encore indéterminées (molluscum cholestérique of Bazin, and molluscum d'Amboyn of the Moluccas).

The term molluscum he thinks still worth retaining as of general use, although it possesses no anatomical significance.

Scleroderma.—Dr. Van Harlingen, of Philadelphia (Amer. Journal of Syph. and Dermat., Oct., 1873), offers, in connection with the report of a case, and with a review of the modern literature upon the subject, the following definition of the disease: Scleroderma is an affection of the skin, characterized by diffused, symmetrical hardening, and generally accompanied by more or less pigmentation. Beginning in some particular locality, without febrile disturbance, swelling or œdema, the induration spreads with greater or less rapidity over a considerable extent of surface. The affected parts fade gradually into those which remain healthy, without any distinct line of demarkation, and they are on a level with the general surface, neither raised nor depressed, and contain no tubercles or other elevations. The temperature of the affected surface is either normal or slightly depressed. The general sensibility, as well as the functions of the glands are unaffected, save in the advanced stages of the most severe cases. It runs a chronic course, unimfluenced, or nearly so, by therapeutical applications, and has no tendency to a fatal termination. Pathologically, the disease consists, essentially, in a great increase in the
fibrous elements of the corium and papillary layer, decrease of fat in the subcutaneous connective tissue, and deposit of pigments in the lower layers of the epidermis and in the rete.


The first-mentioned work, that of the youngest Veiel, contains a record of all the cases of Lupus erythematosus which have been treated at the institution of his father and brother at Cannstatt during the past seventeen years, with a good description of its natural history, and a detailed account of the various forms of treatment there employed against it. Up to the time of its publication, the best results were obtained by chloride of zinc in solution in an equal quantity of alcohol, used as follows: a blistering plaster was first applied to the whole affected part. The epidermal covering, which formed a thick and opaque coat, was then removed, revealing the deep-red, velvety papilae, sharply defined by contrast with the firmer and paler healthy portions. The diseased parts were then painted with the solution. The pain is considerable. The yellowish-white, varnish-like crust which forms, is removed by poultices on the third or fourth day, and the cauterized parts are found covered with epidermis, offering in this respect a marked contrast to Lupus vulgaris, which exhibits under similar treatment a surface of exuberant granulations, which cicatrices much more slowly. Points which still remain open quickly heal under the use of the alcoholic solution of chloride of zinc, diluted one-third with water. Cauterization in this way is repeated until the cure is complete. Although the scars are larger than after spontaneous cicatrization, they are not in the majority of cases disfiguring.

In the last-named article, Dr. Ernst Veiel gives a detailed account of the later method employed at the Cannstatt skin-hospital, which is a combination of the chloride of zinc cauterization above described, and the Volkman's method of scarification noticed in a previous report. For this purpose, and to prevent the great loss of blood, which often follows the use of the customary single lancet, 150 to 200 grammes generally flowing when the operation is prolonged for the necessary half hour, in ordinary cases affecting the face, he has designed a set of blades placed side by side and inserted in a common handle, by which six punctures are made simultaneously. The operation is reduced to five to ten minutes in duration, and thus more immediate attention may be given to controlling, by pressure, the haemorrhage. On this account, too, the necessity for the use of anaesthetics during the operation is diminished, although, as the author says, the principal effect upon the patient is not produced by the scarification and cauterization, but by the persistent pain which often lasts eighteen or twenty-four hours, and then "the danger which is a part of every administration of chloroform is out of all proportion to the amount of pain to be endured."

Directly after the puncturing, cauterization of the parts thus treated with the alcoholic solution of chloride of zinc is performed. Superficial suppuration follows, and crusts form, which fall off in from six to
ten days, after which the puncturing and scarification are again performed. This is repeated until a smooth and uniform cicatrix is formed, which subsequently becomes white. Generally, five to eight times are sufficient for a perfect cure. Relapses, however, are not wanting, even with this treatment, manifesting themselves as red points in the cicatrix, which by confluence are converted into true lupus spots; but these are easily nipped in the bud by a repetition of the treatment.

In ordinary lupus, Dr. Veiel thinks this method effects a material reduction in the time of cure. A longer period, however, between the operations is required, inasmuch as ulceration often ensues upon the parts most deeply cauterized, which must be healed by repeated applications of the diluted solution of chloride of zinc before another scarification.


This series of illustrations of leprosy, as it appears in the Straits Settlements, presents by far the best representations of the disease that have ever been published; the best specimens, too, it may be added, of photography applied to dermatology. Each of the fourteen plates (in small quarto) is expertly and artistically colored, and the series furnishes a faithful but frightful picture-gallery of poor human nature under its most revolting and miserable aspect. Leprosy is becoming a possible home-question to ourselves, as our intimate relations with the Sandwich Islands and our large immigration from China render it not improbable that it may gain a foothold among the foreign population of our Pacific coast. Our Atlantic importations from the Scandinavian nations do not succeed in establishing it within our inter-oceanic territory.

It is among the Chinese, the class to whom leprosy is almost entirely confined there, that Dr. Anderson finds the examples of the disease he pictures. They are all of the male sex, and a female affected by it he has never there seen. With regard to the question of contagion, he says: "We find lepers shouldering us in the streets, squatting on our door-steps, upon which the discharge pours from open ulcers with which most of them are affected, from whose skin scales fly off with the breeze, and emanations from whose bodies we inhale with every breath when in their vicinity; were it, therefore, as contagious as some would have it, we should be inclined to think that the disease would be propagated much more manifestly and extensively than it is. That it may be propagated by inoculation I can well conceive, and believe, also, from all I can gather, that it is hereditary." The causes of leprosy, he thinks, are the influence of marshy effluvia, bad and insufficient diet, bad ventilation in sleeping-rooms, an hereditary taint, and in some cases direct inoculation.

Leprosy: Elephantiasis Grecorum.—Dr. Liveing, in the Goulstonian Lectures for 1873, gives an excellent sketch of the history, distribution, and etiology of this affection. With regard to the latter, he draws the following conclusions: Firstly, its primary cause is yet unknown. Next, of secondary causes, diet and hereditary tendency are by far the most important; and climate, soil and race are not without a certain influence on the development and progress of the
disease. Lastly, leprosy, if not contagious, is capable of propagation by the imbition of the excreta of lepers. So far as treatment is concerned, means of prevention are more likely to be efficacious than attempts at cure.

Development of Cancer of the Skin. (Amer. Jour. of Syph. and Derm. from Virchow’s Archiv.)—According to Carmalt, who has examined three carcinomatous tumors of the skin, the epithelium of the hair follicles is the point of departure of the cancerous growth, which throws some light upon the cause of cancer of the skin. Führer states that frequent and rough shaving is apt to produce cancer of the skin of the face. Out of 50 or 60 cases of cancer of the lip and cheek occurring recently in the Breslau Pathological Institute, only two were in women, and not one case among men with unshaved beards. Carmalt supports the view of Waldeyer and others, regarding the histological origin of cancer, that every cancerous growth originates in the epithelial elements of the part, which opposes Virchow’s views that the cancer-cells are the equivalents of connective-tissue corpuscles.

A New Method for Healing Ulcers.—Dr. Nussbaum (Phil. Med. Times from Wien. med. Presse) claims to have successfully treated upwards of sixty cases of chronic, extensive, and otherwise intractable leg-ulcers, by the following simple procedure. The patient is at first etherized, and then around the ulcer of the leg or foot, a finger’s breadth from its margin, an incision extending down to the fascie is made; numerous bloodvessels are divided, and a severe haemorrhage ensues, unless a fine pledget of lint be packed into the cut and the entire ulcer strongly compressed. The packing with lint is also necessary to prevent union of the cut edges by the following day. Upon the second day, the bandage and lint are removed; from then until a cure is effected a simple water-dressing is applied. The author states that an astonishing change can be seen, even in the first twenty-four hours. The ulcer which yesterday threw off quarts of thin, offensive ichorous pus, furnishes to-day not more than a table-spoonful of thick, non-offensive, healthy pus. The old ulcer becomes rapidly smaller, healing from the margin towards the centre, and is healed in a short time, but the cut is changed into a broad, circular sore, which also speedily cicatrizes. The great diminution of the secretion, and other favorable changes occurring in the ulcer, find an explanation in the fact that the cicumcision has divided dozens of large, abnormally-widened bloodvessels. Time is thus given for the lessened nutritive material, which previously was carried off by the excessive secretion, to be transformed into cells and connective tissue; in other words, granulations are formed, which fill up and heal the deep ulcer. Without claiming this as a radical method, the author assures us that the cure is much more rapid, and the cicatrix becomes more elastic and resisting, than in the ordinary means applied, which usually require so much time that the patients depart with half-cured ulcers, soon to find themselves in their previous deplorable condition.

Tinea in India.—Dr. Purdon, in the Doctor, Aug., 1873, gives extracts from Surg. Palmer’s Notes in the Indian Med. Gazette, on the occurrence of diseases of the skin in Calcutta which are caused by vegetable parasites:—

Tinea versicolor.—An examination of the dispensary records, he says, would fail to convey any adequate notion of the frequency of
this affection, as in the absence of itching and inconvenience it is scarcely regarded as a diseased condition by those affected. Of the total number of skin diseases on the books of the dispensary during two years, only one case of tinea versicolor is recorded; while among the healthy emigrating people, this affection was found to be very common, especially in the rainy season—nearly six per cent. of the whole number being affected by it; and there is good reason for suspecting it to be still more frequent among the inhabitants of Bengal proper. With us in America its growth is always perceptibly more rapid during the hot summer months while the sweat-glands are most active.

_Tinea tonsurans._—On the scalp, this disease is stated to be by no means uncommon among the natives of the Calcutta district; a little more than five in every thousand of the healthy emigrants examined being affected. The form of the disease which occurs on the body is very common among Europeans in Calcutta, constituting nearly half the total number of skin diseases seen amongst them in the two years under review. It most frequently affects those parts of the body which are kept moist with perspiration, as the fork of the thighs, the armpits, &c. There is a very general impression that it is in some way caught from the native servants.


It is not easy to discover what two points in connection with favus the writer of this thesis would especially illustrate; no new points, certainly. He first considers the question of the relations of the fungus found in it to other fungi, and narrates some of the more recent culture experiments; then that of its spontaneous occurrence upon animals and the reciprocal transmission between them and man. Numerous experiments are described relative to the inoculability of favus matter upon animals. The following conclusions are offered: 1. Favus upon man and upon animals is caused by the presence of a fungus called achorion Schoenleinii, which, as a species, belongs neither to the genus penicillium, aspergillus, nor mucor. 2. This parasite is developed upon man and upon animals without any exact knowledge of the source of the spores, the air appearing to be the principal agent in their transmission. 3. The animals most frequently affected are the mouse, cat, rabbit, dog and hen. It is rare with the ox and horse, it being apparently replaced in them by tinea tonsurans. 4. The youth of the subject does not appear to be an indispensable condition of contagion. 5. The plant seems to be transmitted to the skin by erosions upon it made by the nails, teeth or spurs. 7. The achorion, in becoming old, appears to lose a part of its infectious properties, but the conditions necessary to its constant germination are little known. 8. Human favus, even when fresh, inoculated upon the mouse, may completely lose its infectious properties; when it is immediately re-inoculated from the mouse to man, its structure does not appear changed; its germinative faculties only have disappeared.

_Alopecia areata._—Pincus states, in the _Berliner klinische Wochenschrift_ (Jahresbericht gesammten Medicin, 1873) that the early loss of sensibility in the affected portions of the scalp gradually gives way to an increased sensitiveness. There is either an òëdema of the whole
thickness of the skin or of its upper layers. He recognizes two varieties. In the one, there is an affection of the trophic fibres, and the prognosis is favorable. In the other, there is an irritation of tissue, which leads to atrophy, and in this form no good result can be expected from treatment.

Erlach, in the Correspondenz-Blatt Schweizer Aerzte, states that five or six cases of this affection are yearly seen in Bern. According to his observations, there is occasionally to be found upon the stumps of the hairs which have broken off just below the surface of the scalp, and which may still be extracted by forceps about the borders of the bald patches, the growth of a peculiar fungus, in the form of filaments surrounding the shaft. In reply to the attempt of Prof. Frey, of Zurich, to interpret their presence by the supposition that they are only the curled-up edges of epithelial cells, he states that they remain unchanged after the hair-substance has been destroyed by a solution of potash. In some cases, collections of minute transparent spores are seen at the bifurcation of the spiral filaments. In many patients with this affection, such growths may not be seen for months, while at other times they are visible for a week. With other patients, they are never found. Erlach is not disposed to regard the disease as a neurosis.

Eruptions from Chloral.—Dr. Kirn (Dr. Purdon's report from translation in The Doctor, Aug. 1, 1873) describes these as consisting of more or less extensive erythema, and pustular or papular exanthema. Schulte speaks of chloral producing a tendency to fluxionary hyperæmias and increased heart action, early manifested in the head by an intense erythema, occurring first in spots, but afterwards more diffusely, and which in more pronounced cases extends downwards towards the trunk. This chloral rash remains latent until set going by some stimulus to the vascular system, but then appears with an intensity proportionate to the extent of chloralization. This opinion is confirmed by the author, who states that he is acquainted with a series of patients in whom the chloral rash can be produced with the certainty of an experiment. For instance, in a paralyzed patient, who took thirty grains of chloral every night, ten minutes after she had drunk her beer, there occurred increased action of the heart and spots of roseola upon the forehead, nose, cheeks, and neck, which quickly coalesced into a patchy erythema, with swelling and heat of the affected parts, which symptoms disappeared in about an hour. The same symptoms appeared still more strongly in a young and previously healthy woman affected with mania, who every night took from thirty to forty-five grains of chloral. As soon as she took a glass of beer, there was strong pulsation of the arteries, and the whole face was swollen and of such an alarmingly deep color that the use of wine and beer was forbidden. At present, the author but rarely allows alcoholic drinks to patients who are being treated with chloral. The effect is not always limited to congestion and erythema of the skin, but other skin affections are occasionally produced. Female patients who had taken sixty grains of chloral daily, first had erythema of the face, and, later, a papular rash on the arms, with red bases. In some, nettle rash occurred. In several patients, a swollen condition of almost the whole body was noticed, which might be ascribed to serous infiltration of the skin from stasis of the blood. Reimer observed, in
a series of patients, especially after the use of morphia and chloral together, that, after slight external pressure, there was congestion in circumscribed spots, with lowered sensibility, which quickly disappeared if the pressure was soon removed. Under less favorable circumstances, the red spots swelled and assumed a darker color; vesicles were soon developed, which might even run on to sloughing.

TREATMENT OF SMALL-POX IN THE WIEDNER HOSPITAL.—In the Wiedner Hospital (in Vienna), every patient, upon admission, no matter in what stage the disease may be, is washed all over with warm water and soft soap, and then carefully dried and put to bed. His whole body is then enclosed in linen cloths, which have previously been dipped in a mixture of glycerine and water (one part glycerine, two parts water), while a mask of the same material, having an opening for the eyes and mouth, and saturated with the same solution, is placed over the face. The washing is repeated every day, and the cloths are changed as often as they become dry (every few hours), until every trace of scabbing has disappeared. This treatment, it is true, is somewhat troublesome, but the results obtained by it are exceedingly satisfactory. It has the effect of lessening the painful feelings of tension and heat, and preventing the formation of any disfiguring cicatrix.

The death-rate under this treatment, during the last small-pox epidemic, was about 4.48 per cent. (2.42 for men, 6.45 for women), while the average duration of treatment was fourteen days. In the General Hospital, in Vienna, under the expectant treatment, the death-rate for the year 1871 was nine per cent., and the average duration of treatment eighteen days; the difference in favor of the former treatment being very considerable.—Letter from Dr. Carl Schweigerhof in the Irish Hospital Gazette.

RASMUSSEN ON THE PATHOGENY OF HAEMOPTYSIS IN PHthisIS.—At the recent meeting of the Scandinavian Medico-Physiological Association, in Copenhagen (Hospital-Tidende, July 9), Dr. Rasmussen read a paper on the pathogenicity of haemoptysis in the course of chronic phthisis. After giving a brief résumé of his former communications on fatal haemoptysis in chronic phthisis from the bursting of small aneurisms developed in the walls of caverns, he related three cases in support of his views. In the first case, intermittent hemorrhages took place during eleven days from an aneurism as large as a walnut. In the second case, the first symptom of the disease was haemoptysis. The patient was addicted to the use of alcoholic drinks. Death took place eleven days after the last attack of haemoptysis. In a cavity of the size of a walnut, at the apex of one lung, was found an aneurism as large as a hazel-nut, filled with recent coagulum, colored only at the outer part. In the third case, a phthisical patient had three severe attacks of haemoptysis ten months before his death, which took place during a similar attack. On section, an aneurism of the size of a pea was found in a pouch connected with a large cavity. It presented evident traces of having burst some time previously, and was filled with a firm colored coagulum channelled in the centre.—The London Medical Record.
BIBLIOGRAPHICAL NOTICES.

Bibliographical Notices.


In an age like this of specialists and comminated intellectual acquirements, it is a great pleasure to meet with a mind which is perspicacious enough to survey the whole province of human knowledge. It is like getting from the Brighton cattle-pens into the Park—that is to be. The intellects of the high-power observers take in a very small field and let in a very small amount of light. If there were no objectives but twelfths and twenty-fifths and fiftieths, it would be impossible to make a good drawing of a section of a kidney or of the spinal marrow.

No man has openly challenged all knowledge as his province since Lord Bacon, but more than one has undertaken a task which implied a purpose nearly as extensive. Mr. Buckle's History of Civilization in England traced an outline which nothing short of omniscience could have completely filled out. Mr. Herbert Spencer's philosophies invade, one after another, all the chief territories of human knowledge. The little volume before us talks common sense in plain language, but it is impossible not to see that it is a master of all arts and sciences, so far as it is given to one man in our day to answer to such a title, who is discoursing to us.

A man's accuracy is tested by his statements, his breadth of view is shown by his illustrations. Every page of Mr. Spencer's writings is illuminated by those side lights which only a great scholar, in books, or nature, or both, can throw upon the subject with which he is dealing. Possibly he may be tripped up here and there by an expert who knows every inch of his own little patch of ground and nothing beyond it, but in the main he is to be trusted as having conscientiously studied and fairly represented any branch of knowledge with which he deals. Theologians, statesmen, astronomers, physicists, biologists, including physicians and all the rest, find him handling their various specialties as if he had been in the pulpit, in the cabinet, in the observatory, in all laboratories of science and all workshops of art, and felt himself at home in all. Mr. Gladstone's "mental attitude," Mr. Arnold's philology, Sir William Hamilton's originality, the shortcomings in the Indian medical service, the various delays of the law, the laches of the clergy (in paying their subscriptions to a certain serial publication), are all subjects of comment or used as incidental illustrations in this small volume.

Yet Mr. Spencer, though he makes free with everything and everybody, does it in the best spirit and the best temper. He fights Mr. Gladstone's conservatism, but he respects him for it, and would not have him other than he is. He is too much of a biologist not to understand that interstitial renovation is the law of the social organism as well as of the individual body—that there must be a principle of resistance to change as well as an agency which has served its purpose and substituted a new particle in the place of that which is carried out of the system. One cannot read this book without feeling that the writer is, or at least means to be, perfectly fair, candid, passionless, that his mind is as nearly achromatic, if we may recur to the simile
already used, as the media through which truth is seen can well allow
a human intelligence to be.

This particular work is only an introduction to an elaborate treatise
on the Principles of Sociology, upon which Mr. Spencer has been at
work for some years. Many of our readers must have become familiar
with its teachings by seeing it in the monthly numbers of the Popular
Science Monthly. The periodical just named is in the hands of very
many readers who hardly consider themselves students of science, and
who yet, under its instructions and that of similar intelligible presenta-
tions of scientific knowledge, are finding themselves qualified to
have positive opinions on subjects which the preceding generation
would have thought incapable of being popularized as we see them
to-day. What Max Muller says of England, is probably true of
some sections of the United States, namely, that there exists a far
more diffused culture and interest about science and literature in that
country, especially among women, than even in learned and scientific
Germany; the reason being that the English enjoy a perennial sup-
ply of science, made easy in popular lectures and readable periodi-
cals. A very brief analysis of a work so easily accessible in its differ-
ent forms is all that can be necessary.

Having, in his first chapter, shown our need of a social science, in
the second demonstrated the possible existence of such a science, and
in the third explained its nature, he proceeds to treat of the difficulties
which stand in the way of generalizing the phenomena on which a soci-
ology must be founded; first, from the nature of these phenomena,
secondly from the defective training and other personal disqualifica-
tions of the observer, and, thirdly, from the fact that he is himself a
part of the aggregate body the phenomena of which he is to observe.
These points he illustrates in detail in the succeeding eight chapters.

One cannot help thinking of the Idols of the Tribe, of the Den and
of the Theatre, as he reads these acute and searching expositions of
the various illusions and prejudices which this calm iconoclast puts
forth with such destructive impartiality. His business is to show how
fettered and paralyzed we are by the conditions in which we are born
and bred, and he does it like a philosopher and a man of breeding, al-
ways courteous, sometimes almost playful, but sparing none of our in-
firmities or incapacities.

After warning the student against the errors into which he is liable
to fall, he devotes the next three chapters to a consideration of the
preliminary discipline and studies which are needful as a preparation
for the proper pursuit of sociology as a science. Our own professional
readers will find the two chapters headed "Preparation in Biology"
and "Preparation in Psychology" of especial interest. But they will
meet with many facts and inferences scattered through the volume which
bear on the theory and the practice also of their own calling. No spe-
cialist is safe from the omnivorous intelligence of Mr. Spencer. He
picks everybody's pocket of his private store of knowledge and makes
it serve a larger purpose than its owner ever dreamed of.

There is not a great deal in this little book to give offence to the
more sensitive traditionists, but such may keep their tempers better if
they will skip an heretical paragraph or two. We quote, only for the
sake of warning them off from a doubtful page, the instance he gives
to show that a belief in divine interposition goes along with a belief
in the production of effects by natural agencies. He refers to the well-remembered case "when an unpopular prince suddenly gained popularity by outliving certain abnormal changes in his blood, and when, on the occasion of his recovery, providential aid and natural causation were unitedly recognized by a thanksgiving to God and a baronetcy to the doctor."

Mr. Spencer is very plain spoken, and now and then, as in the instance just given, slightly satirical, but he is never rude, for the reason that he has a philosopher's respect for the weaknesses and shortcomings of his fellow creatures. Science dignifies everything it deals with, down to coprolites and pediculi, which last have been studied with enthusiasm by Mr. Denny and Mr. Murray, as Darwin informs us, and which one of our own most gifted observers, whose early loss science must long deplore, Dr. Waldo Burnett, used to pasture, in the most self-sacrificing way, on his own person, so as to study their structure and habits.

We have said enough, we hope, to lead some of our readers to look at Mr. Spencer's book for themselves. Every chapter of it is instructive and the spirit of it is that which should animate every man who calls himself a student of science; a willingness to embrace every new truth, even before it has received the baptism of general acceptance, and a tender respect for the memory of the half-truths which have helped the world along in their day, and are entitled to all the civilities of a decent interment.


This work consists of the full course of eleven lectures, abstracts of which appeared in the London Lancet in 1872. They give, in a very readable form, the anatomy, physiology, diagnosis and treatment of the diseases of the ear according to the most recent investigations, and are destitute of the carping criticisms of the works of others which have been but too common in many foreign treatises. The author has selected his material with care, advises treatment which he has found useful, but at the same time explains other methods which have been recommended.

The work is intended as a text-book for students and practitioners, and is well adapted to the latter class, as a large part of each chapter is occupied with treatment; for students, we should have preferred more complete descriptions of the pathology of the diseases spoken of. A certain lack of system, or, perhaps we should better say, a want of distinctive headings, injures the work as one of ready reference, but the easy and interesting style of the author almost compensates us for such a loss. The book is well calculated to increase the interest in ear-diseases which has sprung up of late years.

BOOKS AND PAMPHLETS RECEIVED.


Vol. LXXXIX. No. 24b
It is announced at the City Hall that the entire force of the fire-department is to be subjected to a medical examination, with the view of eliminating therefrom some of the more inefficient members. Such an examination, provided it be conducted in a thorough, rigid manner, cannot fail to be of utility to the public service. It is a fact, with which most medical men are cognizant, that there are at present connected with both the fire and police force a large number of men, appointed to and retained in office solely by political influence, who, being the victims of various chronic disorders, are physically incompetent for the performance of any duty involving prolonged exposure in the open air. When the weather is not inclement, these semi-invalids are enabled to assume a tolerably healthful appearance, but the severer days of our New England winters serve to stir up their latent troubles, and they are then compelled to seek refuge in some corner grocery, or drug-store, or else they must be temporarily excused from service. An instance has recently come to our knowledge in which one of these delinquents, suffering from a chronic disease which renders him absolutely disqualified for service, having been obliged to absent himself from duty for a few days, actually entered a claim for the payment of his physician’s bill. The money, taken from the fund contributed by benevolent persons for the aid of sick and deserving members, was handed over to him. Many of these men, like the one above alluded to, are enfeebled by reason of some organic or functional disorder, which an examination, such as is accorded to applicants for life-insurance, could not fail to detect. The services of still others of this class might be dispensed with, without detriment to the force, from the circumstance that their bodily imperfections are such as to seriously impair their efficiency. Some are loaded down with an excess of adipose tissue; others are only remarkable for their inferior physique, being manifestly deficient in muscular development, or having a contracted chest or stooping shoulders. All these men are comparatively useless, when vigorous, active service is called for, as upon the occasion of street riots.

Applicants to both these offices are always numerous, for the wages are high and payment certain, and there can be, therefore, no reason why both our firemen and police should not be composed exclusively of picked men, such as command the admiration of visitors in most of the European capitals.
EDITORIAL.

During the last week, the question was raised by one of the profession, as to whether he was bound to reveal what he called a professional secret. We can understand perfectly well that a physician might feel a dislike to communicate anything given to him in confidence, and so would any other man. The being called to see a patient makes him the recipient of very many secrets, personal secrets, family secrets. There are scores of delicate matters within the circle, that no one outside the circle but the physician can know or even suspect. The honor of a family may be necessarily confided to him. The fortune and even the life of a patient may be dependent upon the physician's tongue, as well as upon his medicinal treatment. Outside of the sick room, he knows nothing of what transpires in it. The delirium which reveals secrets, he does not hear; or if he does, forgets. All this is the rule. But every rule has its exceptions. One great exception to this rule is the rule of the law. He who goes upon oath before the Grand Jury or before the Court swears that he will "tell the truth, the whole truth and nothing but the truth," and imprecates Divine vengeance upon his head, if he violates his word. Even here, an exception comes in, and he is allowed to withhold his testimony, provided he says, still under oath, that it will criminate himself. This is the only exception that we know of.

There seems to be an impression with many medical men that they have no right to reveal what they call professional secrets. As we before intimated, they have no right to be tattlers and scandal-mongers, as some are whom we know of, but there the matter of professional etiquette ceases. It is true, a medical man may feel a diffidence, a hesitation about revealing a matter which came to him in his daily business. We may caution a patient not to tell what he does not wish to have repeated, not to expose what he desires to have kept a secret; but what he knows he must under oath reveal. If he chooses, he may balance his friendship for a patient against his oath, and calculate the value of that patient's confidence in comparison with perjury, or with the punishment to be inflicted for contempt of court.

Our brethren should understand that a privileged communication is that which a physician is obliged to make, either for the health and safety of his patient, or which he makes without malice under oath and for which he cannot be made to pay damages. The privilege is his and not the patient's. The party against whom he testifies, must be able to prove that the medical man was actuated by express or actual malice, or he cannot recover.

We have to record another death during anaesthesia, and this time the anaesthetic was ether and not chloroform. We desire to be fair, but we think our readers, when they are in possession of the
facts, will agree with us that the patient would have been, under the circumstances, at least quite as likely to have died with any other anaesthetic.

We shall, therefore, submit to them the question, whether this enfeebled patient did not die from the combined effects of a very prostrating disease and of anaesthesia in its most general sense, rather than from any peculiar property of the anaesthetic used. We hope to give the details of this case in our next issue.

On the use of Chloral Hydrate to Arrest Incipient Abortion.—Dr. Besnier, of Paris (see L'Union Médicale, Sept. 27, 1873), has lately used chloral hydrate in a case of threatening abortion with a perfectly satisfactory result. His observation, fully reported, is followed by interesting remarks upon the action of chloral in abortion and parturition. We give a brief synopsis of his case and of the reflections which accompany it.

The patient, a young primipara, six months with child, was taken with pains in the evening of July 11th. Seen by Dr. B. on the evening of the ensuing day. She had manifest contractions of the uterus, accompanied by pain, recurring every ten or twelve minutes; pulse 80; child active; no cause of premature labor could be made out. Opium was first resorted to. An enema with twenty drops of laudanum produced little or no effect; a second and third, followed by ten drops by mouth, were given with like result. Chloral was then tried. A first dose by mouth being rejected, an enema with 45 grains of chloral was administered; almost immediately, all labor pains ceased, and the patient fell into a deep sleep, which lasted three hours; a second and third enema, each with 30 grains, each produced two hours of quiet sleep. At every awaking, the contractions reappeared, weaker each time.

Laudanum was then again used, in doses of twelve or fifteen drops every two or three hours, according to the indications, and this medication was kept up during the two following days, by which time all apparent danger had subsided.

No phenomena worthy of note occurred after the sedation of the uterus thus obtained. No narcotism was apparent, nor was any disturbance caused by the chloral. The fetal heart-sounds and movements showed a perfectly satisfactory condition of the child.

Such are the main details of Dr. Besnier's case. Dr. Martineau, having obtained similar good results in a case of abortion (Gazette des Hôpitaux, March 25th, 1873), attributed the sedation of the uterus to a supposed "amnestic action exerted by chloral upon the uterus." Dr. Besnier, however, adopts a different interpretation. Recalling the observations of Dr. Lambert (of the Edinburgh Lying-in Hospital), who found chloral to increase the energy of the uterine contractions, rendering them shorter in duration, less frequent, and more powerful (see Gaz. Hôp., Feb. 22d, 1873), Dr. Besnier is struck by the apparent contradiction in the action of chloral used in similar doses in abortion and in accouchement at term, and he tries to reconcile the contradiction as follows: he thinks that, in normal parturition, contraction of
the uterus is excited by mechanical action, exerted by the distended membranes, head or presenting part, &c., and that the contractions thus instituted are partly kept up by the reflex action of the labor pains; while in abortion, the contractions are generally produced, not by any continuous mechanical agency, but by some accidental and passing cause, as a blow, fall or fatigue, the pains being the cause which occasions continuance of the labor. Dr. Besnier, adopting the theory that chloral owes its action to chloroform which is set free in the blood, admits that when given in labor, chloral acts as an anæsthetic, which, in normal parturition, suppresses the pains, leaving the mechanical agency to act undisturbed; the contractions being less frequent, and of shorter duration, allow the uterus to recuperate more fully during each interval, whence their greater energy. But in abortion, on the other hand, the anæsthetic action of chloral suppresses the pain, and with it the only cause of the uterine contractions. Thus the happy effects of the drug are explained without the necessity of invoking any paralyzing effect exerted upon the muscular fibre of the uterus.

Of course, if the foetus or placenta were engaged in the os uteri, the conditions would become similar to those of normal parturition, and chloral would only be useful as an anodyne, in relieving pain, not in preventing miscarriage.

Dr. Besnier draws attention to the utility of combining the action of chloral and of opium; and he recalls in this connection the experiments of A. Bernard, and the observations of Guibert, Joujon and Labbé on the association of chloroform and morphia, which show that the anodyne effects of both drugs are much enhanced by their combined use.

[Remarks:—Besnier's observation and reflections are interesting, as they exemplify and explain the usefulness of chloral in abortion, where we would expect the drug to produce harmful effects, from our previous experience of its action in connection with labor.

We will only add a few remarks to the effect that it would, perhaps, be well to accept with certain reservations, the generally received theory by which the physiological action of chloral is explained. Dumas, Liebreich, Personne and others have shown that chloral hydrate in presence of alkali is decomposed, chloroform and formiate of the alkaline base being produced. It is quite generally admitted, as asserted by Liebreich and assumed by Dr. Besnier, that this reaction is realized in the blood, and to the chloroform supposed to be thus disengaged conjointly with an inert formiate, the sedative effects of chloral are attributed.

Now Dr. Gamgee (see Pharm. Journal and Trans., 2d series, vol. xi. p. 464) has shown that this reaction, which seemed to explain so plausibly the sedative action of chloral hydrate, is only realized when the chloral is treated with caustic alkali, and that the salts to which the blood owes its alkalinity are incapable of decomposing chloral at the temperature of the body; the alkaline phosphate of sodium fails to accomplish the production of chloroform, even at boiling heat, while with the bicarbonate of sodium chloroform is only given off after the temperature has been raised above 70° Centigrade. Dr. Gamgee, also, clearly shows that the symptoms produced by small doses of chloral are quite out of proportion to those which might be expected to result
from equivalent quantities of chloroform, supposing Liebreich's theory
to be correct. The physiological effects are also known to be differ-
ent, chloroform often producing insensibility before sleep and annul-
ing reflex action, while with chloral, anaesthesia is only obtained indi-
rectly, as the result of sopor, and reflex actions are often rendered
more intense instead of being diminished or suppressed. Dr. Gamgee
concludes that chemical facts as well as a consideration of the physi-
ological action of chloral and of chloroform militate against the chloro-
form theory.

Prof. Gubler, of Paris, has also arrived at the same conclusions,
having found that the production of chloroform from chloral is only
effected by caustic alkalies, and not by the alkaline salts present in
the blood.

Until further demonstration, therefore, it would, perhaps, be pru-
dent in studying the action of chloral to carefully observe its intrinsic
properties, rather than to rest satisfied that the drug owes all its pro-
erties to gradual evolution of chloroform.]

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Saturday, November 29, 1873.)

Operations were performed in the following cases by Dr. Bigelow:—
Abscess of Knee-joint, Necrosis of Jaw, Lupus of Nose and Upper Lip,
Felon, Necrosis of Ilium, Necrosis of Femur.

Abscess of Knee-joint.—The rapidity of the disease rendered this case
somewhat exceptional. A healthy teamster, aged 27 years, received a blow
upon the side of his knee two years ago, which disabled him for a few weeks.
One year ago, the knee became painful, but he had worked until three
weeks ago, when he entered the hospital. The joint had become rapidly
large, fluctuating, painful; and an abscess, which had been opened a few days
since, on the outside of the leg over the head of the fibula, was found to com-
 municate with the cavity of the joint. About a month ago, an abscess open-
ed spontaneously about three inches above the one just described.

The probe detected an erosion of cartilage on the inner aspect of the ex-
ternal condyle. The good health of the patient invited, as Dr. Bigelow re-
marked, an attempt to save the leg. Upon opening the joint, it was found that
the cartilage, everywhere roughened, showed only a little erosion, while the
synovial borders had undergone gelatiniform degeneration. It was thought
that the removal of the cartilaginous surfaces, as usual in excision, by
exposing the medullary interior of the bones, would involve a greater risk
to the patient than an operation without such removal. The incision across
the joint was therefore extended laterally through the ligaments down to
the ham-strings of each side, so as to ensure a complete evacuation of the
pus, upon which the successful progress of the case would largely depend.
The vessels were tied, the leg placed upon a tin excision splint, and the
wound left open.

Necrosis of Jaw—in a child eight years old. About one third of the hori-
zontal ramus of the left side was loose, and was removed from the inside with
forceps.

Lupus of Nose—in a young female. It had involved the alar margin, the
septum and a portion of the upper lip adjoining it. The galvanic cautery
was freely applied to the diseased tissue, the patient being etherized during
the operation, and the ether remaining about the face and throat protected
from ignition by a damp towel.
**THE HOSPITALS.**

_Felon of Thumb._—Dr. Bigelow remarked that this common lesion was perhaps a more frequent occasion of mal-practice than any other, excepting, possibly, fractures of the elbow-joint. The proximity of the pus to the bone and tendons demanded its early and free evacuation to prevent contraction, caries and deformity. This patient being under ether, he proposed to demonstrate the usual treatment of this affection by physicians, and for that purpose was about to make a puncture a quarter of an inch or less in length, but at this moment it was discovered that some medical gentleman had already made a puncture of this description. The operator then substituted for this medical incision a surgical one about an inch in length, reaching nearly to the extremities of the sinus, as indicated by deliberate exploration with a probe. Such treatment will arrest the lesion, and is peremptorily demanded before the pus has burrowed up the finger. In the palm of the hand, the finger of the surgeon should be introduced for similar exploration, with a view to adequate incision. If, in a hard swelled phalanx, there is doubt about the place where the pus exists, it will often be found beneath the cutaneous abrasion or puncture which frequently gives rise to this affection. Another more inaudible indication may be derived from the patient by requesting him to indicate exactly, with the sharp end of a pencil, the tenderest point. A felon cannot be well explored without ether. Dr. B. had more than once known a felon of the finger, inadequately opened, to result in amputation of the arm, while deformed fingers and hands are common.

_Necrosis of Ilium._—Following a railroad injury received two months ago. The superior portion of the crest had been fractured and displaced in the direction of the abdominal cavity, where it had united at an angle. Its feel and outline suggested an additional rib. A sinus, located midway between the anterior superior spinous process of the ilium and the great trochanter, was laid open, some loose bone extracted, and the demud-ed bed of the sequestra removed by the spherical rasp.

_Necrosis of Femur._—The same operation was performed on a young man, who had a sinus on the outer side of the thigh, leading to necrosis; the result of fracture received some years since.

**H. H. A. BEACH.**

**BOSTON CITY HOSPITAL.**

The surgical clinic of Dr. Cheever began on Tuesday, Dec. 2, and will continue through the winter.

A Clinical Conference of surgical cases, to be held every Tuesday at 10, A.M., was initiated. Each student examines a case in turn, and gives a written report of it, which is criticized by his fellow-students and by his teacher.

An interesting case of pistol-shot wound of the base of the skull, involving the brain, was reported on this occasion. The pistol was held in the mouth, directed upward. The ball entered at the junction of the hard and soft palates, and passed upward and backward. There is palsy of the right lid, and immobility of the right eye; the tongue protrudes to the left; there is left hemiplegia, but no paralysis of the face. Vision, hearing, deglutition and the functions of the bladder and rectum are normal. It is now three weeks since the injury, and the patient is, on the whole, improving. The ball has not been extracted.

On Friday, December 5th, operations were performed as follows:

A case of Suppurating Bubo was incised by Dr. Cheever. The origin of the inflammation was obscure, whether from gonorrhea or from a chancreid. Dr. C. remarked, with reference to opening such abscesses, that in the hospital, where the patient could have proper care, a free incision is preferable; if the patient were to remain at home, a small opening would be more desirable.
An Ulcer of the Rectum, with Hæmorrhoids, was next shown. The patient was an adult male, who had suffered many months from pain in defecation and from discharge from the anus of pus and a foul thin fluid. No sinus appeared externally. Examination with the rectal speculum disclosed an ulcer on the posterior aspect of the intestine, with a deep sulcus extending toward the coccyx. A number of internal hemorrhoids also came to view; the largest of these Dr. Cheever tied with a silk ligature, first cutting a groove around the base of the growth in which the silk should lie; the smaller, flat piles were touched with strong nitric acid. The ulcer was treated by an incision from its edge downward, dividing the sphincter ani.

Dr. Williams performed Enucleation of the Eyeball in the case of a man who, five weeks before, had received a penetrating wound from the prong of a fork, involving the cornea and iris. The ball was abnormally soft to the touch. In the field of the pupil, a yellow reflection appeared, indicating purulent disorganization of the deep parts. The danger of sympathetic ophthalmia in the other eye indicated the removal of the injured organ. The operation was done without ether, the patient declining anaesthesia. On removal, the globe showed extensive disorganization in the internal parts.

Dr. Thorndike presented a case of Sphacelus of the Great Toe, the result of a neglected injury, with exposure to cold and over-use. The entire toe was necrosed, the line of demarkation being distinct. The advanced age of the patient and his irregular habits, together with osseous deposits in the dorsalis pedis artery, predisposed to gangrene. Dr. T. removed the toe, with the head of the metatarsal bone adjoining.

Dr. Cheever amputated a thumb which, several weeks before, had been bitten by a horse. The soft parts were much swollen, pus had burrowed into the palm as far as the annular ligament, and the middle phalanx of the thumb was fractured. The part was removed at the carpo-metacarpal joint.

Correspondence.

DEATH FROM ANÆSTHESIA.

MESSRS. EDITORS,—Dr. Bigelow's communication, in regard to death from ether, recalls to mind a case reported by Mr. Jonathan Hutchinson, in the British Medical Journal for March 8th, 1873. As others may accept his conclusion, that chloroform is the safer anaesthetic for the aged, without noticing how insufficient its foundation really is, perhaps a review of his case may not be out of place.

A man, 84 years old, in feeble health, was operated upon for removal of a cancerous gland under the jaw, on the left side. To prevent loss of blood, the left carotid artery was compressed at the beginning of the operation. He was thoroughly under ether about twenty minutes, and was left by Mr. Hutchinson, without anxiety, with a pulse of 80, face perhaps a little dusky. In three hours, he was seen again; he had got out of bed to urinate, seemed confused, did not speak. Five hours later, unconsciousness was deepening, right arm seemed powerless, left was moved, occasional twitching of right cheek. During the night, he had several convulsive seizures, in which the spasms affected chiefly the muscles of the right side of the face. The eyes were constantly directed to the left. "Although I much feared that hæmorrhagic apoplexy had taken place, I was not without hope that the symptoms were merely due to prolonged action of the anaesthetic." The next evening, the spasmodic twitching extended to the right arm. The second night, they were more severe, and he died forty hours after the operation. At the autopsy, no cerebral lesion was found, except senile atrophy and an old aplectic cyst on the right side, probably nine or ten years old. Both kidneys were granular; the right was atrophied, and contained a calculus in its pel-
vis. Mr. Hutchinson says:—"Now, in looking back upon this case, I cannot help suspecting that the anaesthetic was largely to blame for the patient's death."

Unilateral symptoms, resembling those due to hemorrhage in the neighborhood of the fissure of Sylvius so closely that the surgeon expected to find that lesion, would scarcely be produced by ether after the patient had recovered sufficiently to rise from his bed to urinate.

An embolism of the internal carotid, or middle cerebral artery, would explain all the symptoms. But no such embolism was found. It is not said that the arteries were healthy, but only that they were pervious; neither is any statement made as to the amount of blood in the cerebral tissues.

Anastomoses of the cerebral arteries outside the circle of Willis are either wanting or are very insignificant. Plug up the carotid, and the middle cerebral must be supplied through the anterior and posterior communicating arteries. But the anterior cerebral, posterior cerebral and anterior cerebellar arteries must first be supplied. Little blood could reach the middle cerebral at the best, and if the arteries were atheromatous in this feeble old man, with granular kidneys, the supply would be so much less. The old apoplectic cyst shows that disease of the arteries was probably present.

Cut off from part of a brain for ten or fifteen minutes the supply of blood, and then supply, in perhaps insufficient quantity, a blood impure from the effects of granular kidneys, and the nutrition of that portion must suffer. If tetanic spasm of the arteries follows the diminution of blood, the result would be the more serious.

Here, then, in compression of the carotid is a cause sufficient to account for the symptoms, and, judging from the report of the case, this was the only cause adequate to produce them. The most that ether could have done, was to produce insensibility, and so conceal from the surgeon any shock or other warning of the serious disturbance in the cerebral circulation. Any other anaesthetic would have done the same. When Mr. Hutchinson, from only one case, and that such an one as this, concludes that it is not safe to give ether to aged patients, he reasons illogically, and lays upon that anaesthetic a burden of unjust opprobrium which belongs really to one step of the operation. The sentence italicized would rather indicate that the reason for this is to be found in insufficient knowledge and experience as to the effects of ether.

In this connection, it is interesting to notice that in a brief abstract of this case, given in Braithwaite's Retrospect for July, 1873, p. 242, there are three mistakes in three lines:—"Death from hemorrhagic apoplexy occurred ten hours after an operation for the removal of a cancerous submaxillary gland."

S. G. W.

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LETTER FROM "RUSTICUS."

DOWN EAST, Dec. 1st, 1873.

MESSRS. EDITORS,—When I was up your way awhile ago, I was a little struck by the changes since I was there, as a young fellow attending lectures. Not that my time was spent down in North Grove street, but I mean the changes in accommodations for sick folks. Those were what I looked at. You may think it queer, but I didn't go into one of the hospitals or infirmaries. You know, I said I wouldn't. I looked at their outsides, though. That is a curious establishment where Grove Hall used to be. I am told that it is a work of faith entirely. When the doctor started, he only prayed for something. Well, three dollars and thirty cents came soon after, and then a bag of potatoes. Some good little boy sent him five cents. He kept on praying, whenever he was short, and just as sure as he did, somebody would send him more money and more potatoes, till at last he has got that big palace of a place.
I couldn't help admiring the perseverance of the doctor, and after I got home, I told a wicked fellow here about it, thinking it might bring him round. What do you think he said about it? "Why," said he, "if he hadn't told about his prayers, and bragged of how much good they did, he wouldn't have got all those things. It riled up weak folks, and those good little boys and girls that didn't know any better, and they sent him what they were sorry for afterwards." "But, Mr. Ploughsteerer," said I, "we don't care how it was done. The prayer was answered, wasn't it?" He kept quiet for a few minutes, for I had him, sure. But then he put a question to me, and I thought I would send up to you for an answer; for, I declare, he cleared out before I had time to think what the answer should be. Said he, after looking over a copy of one of the reports, "Doctor Rusticus, if that fellow can get his prayers answered, when he asks for houses, and money, and old clothes, and a dozen cookies, and a spittoon, and nine apples, and two baby dresses, and the Sunday School Advocate, and eight quarts of blackberries, and a chemise, and a gallon of milk, and a glass of jelly, and a cake of soap, and a bottle of whiskey, and three old shirts, and six quarts of chicken broth, and a dozen spit-cups, and a blanket, and two quarts of ice-cream, and the 'Silent Comforter,' and one carrot, and a stool-plate, and a pair of slippers, and five dozen Gibraltars, and one yard of oil cloth, and nineteen bottles of currant wine, and one pot, and a Liberal Christian, and two boxes of Guava jelly, and a barrel of squashes, why in thunder don't he pray to have those sick folks get well, to be a comfort and support to their friends? I'll tell you, doctor, that chap is no fool."

I have seen Mr. Ploughsteerer, as I have been riding by his place since, but I have always been in a hurry.

I had the elegant building of the new Homœopathic College pointed out to me. I am told that they are so distinguished already, by the ability of their professors, though they didn't begin their lectures till the 5th of November, that their fame had reached Constantinople early enough for an inhabitant of that city to get over and study with them, before I left Boston, on the 10th of the same month. You needn't express any doubt about this. One of your Boston papers said so, at any rate.

That school is more liberal than Harvard. One of their circulars, speaking of both sexes, says, "the lectures will be heard in common so far as seems appropriate in the judgment of the Faculty, and separate lectures will be given when it is deemed advisable." I don't think they are quite up to the mark, however, for they say "separate retiring rooms are provided for the use of lady students." Miss Materia M. Forceps says she thinks "this an outrage, coming as it does so near to the Centennial Anniversary of American Independence." Well, Miss Forceps and Mr. Ploughsteerer must keep out of my way. I really have not time for anything but my own business.

Yours, truly, RUSTICUS.

Milk of Magnesia.

MESSRS. EDITORS,—"This preparation is a combination of pure magnesia with pure water, and is termed, in scientific language, hydrate of magnesia."

The above are the words with which an apothecary's hand-bill, distributed about of late, begins. It is an advertisement of a New York manufacturer, and bears upon it the stamp of a Boston retailer. The whole thing is an absurdity in its statements, as absurd, indeed, as the introduction is erroneous. Magnesia is almost insoluble in water, requiring over five thousand parts of cold water for every part of pure magnesia, and resembling lime, in requiring many more times its weight of boiling water than of cold water. A hydrate of magnesia is a white solid mass and not a liquid.

Messrs. Phillips & Brown will do as well to invent a new name.
Medical Miscellany.

We are unable, on account of sudden demands on our space, to publish two obituary notices which should have appeared in this number.

Dr. Wilhelm Freund has been appointed Professor in the University at Breslau.

A Healthy Village.—The registrar of Howden, Yorkshire, England, states that no death has occurred in the village, which has a population of 2900 persons, since August 17 to the date of report, Oct. 25—more than nine weeks. Only thirty-one deaths were registered during the twelve months ending September 30, or at a rate of 13.47 per 1000. Eleven of the deceased persons attained upwards of 70 years.—Med. Times and Gazette.

Damages Claimed for Vaccination.—A suit has been brought against the city of New York to recover $10,000, on the ground that a girl, four years old, who had been vaccinated by an agent of the Board of Health, had been thereby inoculated with scrofula. At the trial, physicians were introduced to testify that scrofula and other diseases might be imparted through the use of impure vaccine virus. The complaint was dismissed, however, by the judge, who ruled that the city was not liable in the case, insomuch as the Board of Health, under the present laws, is distinct from the city government.

Anti-opium Pill.—The following formula for an anti-opium pill has been employed for several years in the English hospitals at Pekin, and its efficacy proven in numerous instances:

\[ \text{Rx. Henbane, gr. one quarter;} \]
\[ \text{Gentian, gr. one half;} \]
\[ \text{Quinine, gr. one quarter;} \]
\[ \text{Ginger, gr. one half;} \]
\[ \text{Camphor, gr. one half;} \]
\[ \text{Cayenne, gr. one half;} \]
\[ \text{Cinnamon, gr. one half.} \]

M. Three pills a day.

—London Druggist.

Preventive Against Poisoning by Quicksilver.—Since the year 1868, the floors of all the workshops at the looking-glass factory in Chauny have been sprinkled each day with a solution of ammonia. This simple precaution has been given to the workmen absolute immunity from all mercury poisoning, while some of the older employes, who had previously suffered from this affection, have since been relieved of all their symptoms.

Caoutchouc Electuary as a Remedial Agent.—Dr. T. R. Varick recommends caoutchouc as a remedial agent, in preference to cod-liver oil, in certain cases of pulmonary tuberculosis, chronic bronchitis, the winter coughs of old people, and in chronic rheumatism. Prepared in the following manner, the dose is a teaspoonful three times a day, about two hours after meals:

\[ \text{Solution of Caoutchouc.} \]
\[ \text{Rx. Caoutchouc (in thin slices), } \frac{5}{4} \text{i.;} \]
\[ \text{Ol. terebinth., } \frac{3}{4} \text{i.} \]

Macerate until solution is effected, and strain through coarse muslin.

\[ \text{Electuary of Caoutchouc.} \]
\[ \text{Rx. Solut. caoutchouc, } \frac{3}{4} \text{i.} ; \]
\[ \text{Sacch. alb., } \frac{3}{4} \text{iss.} ; \]
\[ \text{Mellis (strained), } \frac{3}{4} \text{iss.} \]

This mixture should be of opaque yellow color, and thick enough to run very slowly off a spoon. It contains about two grains of pure caoutchouc to each teaspoonful.—Medical Record, Nov. 15, 1873.
POISONING BY SULPHATE OF ATROPIA.—The Lancet of September 27th gives the case of Dr. Sharpey, reported by Dr. Sydney Ringer. Dr. S., by mistake for quinine, took a solution of sulphate of atropine. He discovered his mistake, but not supposing the dose to be sufficient to poison him, continued his work. This was on Sunday forenoon, and he woke to consciousness on Monday. Many of the usual symptoms of atropia poisoning were present, but the gentlemen in attendance were unable positively to diagnosticate the case.

NOVEL USE OF THE STOMACH-PEMP.—In an obstinate case of constipation which had resisted all manner of remedies, it finally occurred to the physician to introduce the pipe of the stomach-pump into the rectum, and make use of the instrument as an aspirator. The result was, at first, a large amount of wind was drawn off, which was soon followed by an extraordinary discharge of feces. With each stroke of the pump, the abdomen could be seen to diminish sensibly in volume, and complete relief was afforded.—It Raccog. Med. No. xxii., 1873.

WARNING TO MOTHERS.—Sir Theodore Mayence, subsequently physician to James I. of England says "his [the king's] wet nurse was a drunkard, and so, owing to the milk becoming vitiated (though early weaned), he was unable to walk alone before his sixth year."

It is a little curious, but his son, Charles I., did not walk till his seventh year. He was also tongue-tied. The historian does not tell us if the sin of the same wet nurse caused the crippling of the son. It would be queer if the same old tipple caused that tongue-tie.

RARE TUMOR OF THE UPPER LIP.—At a recent meeting of the Société de Chirurgie de Paris, Dr. Blot exhibited a child, aged 8 months, which had a congenital swelling of the upper lip, the part being four or five times the natural size. In the discussion which ensued, quite a variety of views was elicited as to the character of the enlargement, one surgeon considering it as the sequence of some inflammatory process, and advising partial excision; another regarded the affair as a hematoma, likely to disappear of itself; a third was of the opinion that the swelling was a form of elephantiasis, which should be attacked as if it were an erectile tumor, not with the bistoury, but by means of the galvano-caustic. It was remarked that a similar case had been recorded by Holmès, which was thought to have been produced by hypertrophy of the muscular tissue. In this case, however, a portion having been removed, it was found to be made up of hypertrophied connective tissue.

MORTALITY IN MASSACHUSETTS.—Deaths in seventeen Cities and Towns for the week ending November 29, 1873.


Prevalent Diseases.—Consumption, 47—pneumonia, 31—scarlet fever, 20—typhoid fever, 13.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Dec. 6th, 138. Males, 59; females, 79. Accidental, 5—apoplexy, 5—asthma, 1—inflammation of the bowels, 2—disease of the bladder, 1—bronchitis, 10—inflammation of the brain, 1—congestion of the brain, 1—disease of the brain, 6—cancer, 1—cyanosis, 1—consumption, 20—convulsions, 5—cerebro-spinal meningitis, 2—croup, 2—dysentery, 3—diabetes, 1—dropsy of the brain, 2—diarrhea, 1—diaphtheria, 1—epilepsy, 2—erysipelas, 1—scarlet fever, 19—typhoid fever, 4—disease of the heart, 1—hemorrhage, 1—incapacitation, 2—disease of the kidneys, 3—congestion of the lungs, 1—inflammation of the lungs, 12—marasmus, 7—old age, 1—paralysis, 1—premature birth, 1—puerperal diseases, 2—rheumatism, 2—septamia, 1—whooping cough, 1—unknown, 3.

Under 5 years of age, 60—between 5 and 20 years, 6—between 20 and 40 years, 28—between 40 and 60 years, 27—over 60 years, 17. Born in the United States, 93—Ireland, 47—other places, 8.
Cases of Peripheral Paralysis, Their Causes and Nature.

By S. G. Webber, M.D.

The nerves are generally protected from slight injuries by their situation. This is not, however, universal, and several nerves pass near the surface or over the bony prominences, so as to be more or less exposed to injury. Of course, severe injuries may affect nerves as well as other structures. The protection afforded by being on the inside of a joint, as in the axilla, fails in case of dislocation, and the head of the displaced bone may seriously injure the neighboring nerves.

Symptoms arising from pressure vary greatly, according to the severity with which the cause acts and the length of time during which the pressure is exerted. This probably explains a difference of opinion in regard to the causation of paralysis of the radial nerve. Duchenne, in his second edition, recognizes only a rheumatic origin. Panas, in a memoir read in 1871 before the Académie de Médecine and lately published,* refers all such cases to pressure as the cause. Duchenne, in the third edition of his work, refers to Panas's memoir, and says: "I admit that, in some cases, compression of the posterior part of the fore-arm or of the radial nerve should exercise a certain influence; but it seems to me unquestionable that, in the numerous clinical cases which I have observed for more than twenty years (about one hundred), the action of cold has played the chief part in the etiology of this form of paralysis."

The radial nerve is not the only one which suffers from pressure or the action of cold, and it is not unlikely that all such cases agree in symptoms more closely than is apparent from published records, the intensity of some symptoms varying in different cases.

When nerves are divided, the peripheral end and the muscles which they supply degenerate; after reunion of the nerve, restoration, more or less complete, takes place. The electrical reaction of the nerves and muscles suffers a corresponding change, which is characteristic. A few days after the injury, the muscles lose their...
sensitiveness to the action of the faradic or induced current, and this loss increases until the strongest faradic current, applied by means of moist electrodes to the skin over the muscle or its nerve, no longer excites contraction. When a nerve is entirely separated from its centre, this extreme limit of change is reached within two weeks. In many cases, not all, the reaction of the muscle to the galvanic current is increased, while that for the faradic is diminishing. Later, as the degenerative change in nerve and muscle advances, the reaction to the galvanic current diminishes and finally disappears. With this, there is more or less atrophy of muscles.

When the nerve is restored, the reaction to the galvanic current usually reappears first, then voluntary motion, and, finally, the reaction to the faradic current. This order of return to normal conditions is not invariable.

If only a few fibres of a nerve trunk are injured, only a partial paralysis will follow, unless subsequent inflammation involves the whole trunk. One muscle alone may be paralyzed, or, if there is more than one source of innervation, it may be only weakened, and may still respond to the will and to electricity, though less perfectly than in health. If, instead of division of fibres, there is only a slight injury, every grade of change in their functional relations may be found from normal to entire loss. To this, and perhaps owing to hasty observation, is probably due the difference in opinion to which reference has already been made.

The means by which nerves may be compressed are various: a crutch pressing on the nerves in the axilla is not uncommonly the agent by which the compression is made; a wide board carried under the arm may act in the same way; one writer mentions badly fitting corsets; a dislocated bone, humerus, or femur, or other bone, may press on the nerves in the neighborhood of the joint; certain positions taken by the limbs during sleep, or the pressure of one part on another, as the head on the arm; a bandage applied tightly to a limb,—these are ways in which pressure, sometimes very gentle, but long-continued, may cause paralysis. A fall or a blow may exercise a more violent pressure of short duration, and is not unfrequently the cause of local paralysis and wasting. As the nerve is more severely bruised, and in part or entirely ruptured, compression is rather too mild a term, and contusion describes the injury better; but sometimes it is not easy to decide whether compression or contusion is the better. Often, in such cases, the muscles are paralyzed and suffer atrophy as a direct result of the injury.

That the severity of the cause producing the lesion has a controlling influence over the change in the electrical reaction, is the probable explanation of the difference in the following cases.

Case I.—D. C., aged 23, fell, about seven weeks before I saw him, bruising his shoulder and breaking his collar bone. The deltoid and biceps were extensively wasted; there was inability to raise the
arm or to flex the elbow. The muscles of the fore-arm were not affected. The triceps brachialis was scarcely at all implicated. The strongest faradic current the patient could bear caused very little if any contraction in the deltoid and biceps. The skin covering these muscles was very insensitive. The patient was seen only a few times, and gave up the treatment by electricity, saying he did not have time to attend. The atrophy of the deltoid may have been due to direct violence; that of the biceps, and the slight injury to the triceps, were probably secondary.

Case II.—Lizzie B. was first seen early in April. About January 1st, she fell, striking her shoulder. The arm felt lame, but was not very painful. Immediately after, she was attacked with variola, and only three weeks later was it discovered by her physician that the arm was out of place. He replaced it, and the arm remained bandaged for five or six weeks. As nearly as could be learned from her statement, it would seem that immediately after the fall she had some power over the arm, but while sick and before the bandage was put on this was lost and was not recovered. She first applied at the City Hospital as an out-patient, and Dr. Bolles sent her to me.

When seen, the fingers were weak, the thumb and forefinger being weaker than the others. All the muscles of the fore-arm responded, however, to the will. The elbow could be bent and nearly straightened. The only motion of the arm at the shoulder-joint was a slight pendulum-like swing backwards and forwards. The shoulder could be raised a little, as in a shrug. There was a sense of pricking just over the head of the humerus and at the elbow, not in the fingers. There was lessened sensibility over the shoulder and on the outside of the arm. Sensation inside of the arm, over fore-arm and hand was normal. There was a "hard ache" in the shoulder, so severe as to keep her awake at night.

The deltoid, supra- and infra-spinatus, and perhaps the serratus magnus, were atrophied, especially the anterior part of the deltoid, causing the head of the humerus to project so prominently as to raise the question at first as to whether it was in its proper place. All the muscles responded fairly well to electricity, making allowance for their diminished bulk.

Galvanism was used, the positive pole being placed on the back of the neck, and the negative on the nerves, and stroked over the muscles. Passive motion was also used, and she was directed to rub the shoulder. The pain became less, so that she could sleep better. After three applications of electricity, she could use the arm to sew, could pin her cloak, and could raise the arm somewhat from the side.

She attended only very irregularly, being away for many days out of town. The last record was made after nine applications of electricity, more than a month after the first visit. The deltoid had
then increased in bulk, covered the acromion and head of the humerus much more than at first. Motion was possible in all directions, but the arm, with fore-arm bent at right angles, could be rotated outwards only about one-half, and could be raised only to a horizontal. She could sweep, sew and iron, but had not strength enough to wash.

It may be a question as to whether the humerus was dislocated, or whether the atrophy of the deltoid caused it and the acromion to become so prominent as to simulate a dislocation; also, whether the restrained position of the arm had any part in the causation of the atrophy. This seems unlikely, as six weeks' disuse and the bandages necessary in case of dislocated humerus would not be likely to affect the deltoid. And she thought motion was lost before the bandage was applied.

While this case was under treatment, I saw another patient, a lady, who, from a fall three months previously, was suffering from inability to use her arm. The same muscles were affected, though the posterior fibres of the deltoid suffered more than the anterior. There were some symptoms of neuritis, and hyperaesthesia over the course of the nerves, with loss of faradic contractility, but preservation of susceptibility to the galvanic current. The treatment was short, owing to removal out of town, and but little advantage was gained from the two or three applications made.

In these cases, the cause was almost identical in nature, but undoubtedly varied in intensity. A similar variety in the symptoms, especially in the electrical reaction of the muscles, is found. In the first case, only seven weeks had elapsed from the time of the accident until I saw him, yet there was extensive atrophy and loss of electromuscular contractility. In the second case, after three months, the latter was still retained; while in the third case, after three months, it was absent. In all, there was paralysis as a prominent symptom, with anaesthesia in two and hyperaesthesia in one.

Cases of paralysis from dislocation of the humerus are reported in medical writings. I have never seen a case, unless that of Lizzie B. is such. A while since, I was consulted by letter in regard to a patient suffering from such an injury. The deltoid and biceps were most affected, and there was partial anaesthesia over the deltoid.

Cases of paralysis following dislocation of the femur are rare. An interesting case is reported by Onimus and Legros.* A man, 46 years of age, received a mass of earth and stone on his left thigh. There was a dislocation, probably ilio-ischiatic of the femur. There was severe pain, anaesthesia and inability to move the leg. After reduction, the pain ceased, but the numbness remained, and he could not walk. After a slight attack of erysipelas of the face, pain in the leg returned. Five months after the accident, the left leg was found much emaciated, colder to the touch than the other, edema-

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tous, especially around the tibio-tarsal joint. The leg could be feebly flexed and raised, the foot could not be raised nor the toes extended; toes flexed only partially. Sensation was much diminished; pressure was painful. Walking was not possible, and standing was painful. Electro-muscular contractility was very much enfeebled in all the flexor muscles of the leg, somewhat so in the extensors. It was diminished in the muscles of the calf, and gradually disappeared in the peronei and the tibialis anticus and extensor communis. Under the application of the galvanic current, the pain ceased, the œdema disappeared and the patient could walk without a cane.

A much more common seat of paralysis is the radial nerve. It occurs, generally, during sleep. It is in regard to this paralysis that the difference of opinion between Duchenne and Panas, above referred to, exists.

Duchenne, in his third edition, says that the paralyzed muscles retain intact their electro-muscular contractility, and generally the muscular sensibility is not diminished. Once only has he observed enfeeblement of the cutaneous sensibility in the fore-arm and hand.

Panas also mentions the same characteristics, adding, however, that cutaneous sensibility may be perverted.

In the cases which have happened to come under my care, the electro-muscular contractility, as compared with the other side, has been found diminished when such comparison has been made at a long enough interval after the origin of the paralysis. If the two sides are not compared, the contractility remaining is sometimes so great that it might be considered normal; yet on making the comparison it is found more or less diminished. I have found the cutaneous sensibility for touch and temperature and pain almost always diminished, or perverted, and for electricity sometimes increased. In the cases where the paralysis has been most marked and existed longest, I have been able to see no difference in its nature or quality from that found in the cases due to severe lesion above recorded, excepting that the muscular atrophy was not marked enough to be recognized. Had the paralysis continued longer, it is possible that atrophy might have been found also.

In the number of this Journal for July 6th, 1871, I published four cases of this form of paralysis. In three, the electro-muscular contractility was diminished as compared with the other side; not mentioned in the other. Sensibility was diminished in three, perverted in the other. There was also some œdema of the hand, discolored surface, a mottled appearance and diminished heat as measured by the touch, once by thermometer.

In several cases which I have since had under treatment, the same general characteristics have been observed in regard to sensation, coloration of skin, and apparent temperature. In only one has the electro-muscular contractility, as compared with the other side, been noted; the statement has merely been made that the muscles
affected responded to faradization. In one case, it is noted that the muscles moving the thumb and index finger responded poorly to the faradic current, better to the galvanic.

Of the cases first published, in Case I., the paralysis came on while lying with the arm over the edge of a sofa in a drunken stupor; in Case IV., it came on during heavy sleep after great fatigue and a glass of whiskey; in Case III., it came on as the direct result of carrying a basket of lemons on the shoulder and arm, the basket pressing on the outside of the arm, over the course of the radial nerve. Case II. may have been caused by a draught of cold air, in accordance with Duchenne's theory.

In the half-dozen recent cases, the paralysis was first noticed after sleeping. In only two was there any chance that cold was the cause. In one of these, seen in March, the patient said that, being warm, she threw off a part of her covering, but was not aware that she was chilled; she thought she lay on her arm, and slept rather heavily towards morning. The other was very slightly affected, and is for that reason reported.

Case III. Mrs. L. Seen with Dr. Ingalls. Had rheumatism ten years ago, and chronic arthritis since; at times pain in arm, especially during dull days. The joints were rather swollen. Cardiac enlargement with murmurs. The day before I saw her in the evening, she fell asleep in her chair; could not tell on which hand she leaned; slept less than forty-five minutes. On awakening, the left arm felt numb and prickly, and she had lost in part the use of the left hand. The sense of prickling passed off, but the power to use the hand did not return. The back of the hand, the thumb and fingers, were less sensitive than normal, the change being most marked in the thumb. The extensors were weak; pronation and supination were possible; flexion was slightly interfered with, there being a sense of stiffness. The hand was somewhat swollen, slightly congested, but not cold. All the muscles responded to the faradic current.

The effect was so recent, and seemed so slight that only bathing in hot water and friction were advised. Recovery was perfect.

In this case, perhaps, time enough had not elapsed for change in the electrical reaction to appear. Whether pressure was the cause, or cold, it might be difficult to decide; certainly the symptoms resembled those found in other cases where pressure was undoubtedly the cause.

Taking the accounts given by Duchenne and Panas, it will be seen that several of the cases which I have reported differ in regard to the electro-muscular reaction, and all differ in regard to the condition of the cutaneous sensibility.

When a patient is seen the day after the origin of the trouble, it may well be supposed that the electrical reaction of the muscles would be normal, but after a few weeks have passed it would probably be found, on comparing the two sides, that there is, almost
always at least, a slight difference. The sensitiveness of the muscles to electrical stimulants varies much in different individuals, depending perhaps upon the amount of adipose tissue, the softness and suppleness, or dryness of the surface, and perhaps, more than all, upon the person's occupation. I have found the greatest susceptibility in teachers of the piano-forte. Hence, if only the affected arm is examined, the electrical contractility may be considered normal, when really it is diminished.

The cases which have come under my observation, where cold could be considered as the cause of the paralysis, were not essentially different from those where it was caused by pressure, unless it be that the electro-muscular contractility was either not affected or not tested as compared with the other side. In a case reported by Rosenthal,* which was probably caused by chill, it was decreased. In a case reported by Onimus and Legro, of so-called rheumatic paralysis of the anterior tibial nerve, it was likewise slightly diminished. In another case reported by them, the electrical reaction of the deltoid was below the normal for the faradic current, increased for galvanic.

It is hardly necessary to multiply instances.

As in all these cases the symptoms are identical, making allowance for variations in the severity with which the injurious agent acted, and the difference of time between the origin of the trouble and the examination, it is reasonable to consider the condition of the nerves, induced by these different agents, the same. It is only another instance where the same pathological condition is produced by different agents.

There is first pain, a peculiar pricking sensation, with this is numbness, and loss of motor power. The pricking sensations pass away, but the numbness and loss of power persist. The limb generally becomes oedematos, has a mottled or purplish color, and is frequently cooler than its fellow. To this may be added, in cases which are not seen soon after their origin, a diminution of faradic contractility in the muscles, sometimes the galvanic current acting more readily than normal. In recent cases, and in cases of slight intensity, some symptoms may be wanting.

A slight neuritis would explain all the symptoms.

The pricking is caused by irritation of the sensitive fibres, the numbness and loss of motor power by impaired conductivity due to the inflammation. The oedema and discoloration, and the sinking of temperature, are due to implication of the vaso-motor fibres in the inflammation. The cause being slight, or of short duration, these symptoms are not found in their highest degree of development, and some cases recover easily; others, where the cause acted with more severity, are more protracted, and a few only result in atrophy and permanent disability.

Jacoud, describing the symptoms of neuritis, gives as the principal, swelling of the nerve, no fever, pain following the course of the nerve, even to its terminal branches, increased by pressure, tactile sensibility diminished with persistence of spontaneous pain—painful anaesthesia. In mixed nerves, these symptoms are accompanied with startings and contractions of the muscles, to which soon succeed motor paralysis with loss of reflex movements and of the electric contractility. If the paralysis persists, muscular atrophy, lesions of nutrition, erythema, vesicular eruptions, and, in chronic cases, deposit of pigment and arthropathy. These symptoms are similar to those found in the cases already reported.

It would seem, from the consideration of the cases reported, that Duchenne is wrong in regard to the exciting agent of paralysis of the radial, and that, as Panas contends, it is generally caused by pressure. I cannot help thinking that both are wrong in regard to some of the important symptoms which are present in nearly every case, especially if it is of more than a week's duration. It is hardly necessary to refer to other authors, as these two represent the two phases of opinion, and most others refer to Duchenne. Eulenburg has, however, stated the symptoms correctly, and says that Duchenne is not correct in denying the loss of electro-muscular contractility. He also recognizes pressure during sleep as a cause.

Another cause of neuritis, which is not generally mentioned as such in textbooks, is overwork.

The following is an interesting case, showing as it does, in a mild degree, all the symptoms usually found in such cases. The patient was sent to me by Dr. Ingalls.

Case IV., Miss E. D., act. 22, about three weeks before I saw her, while taking care of a brother sick with typhoid fever, noticed a tingling in the fingers of the right hand; they and the hand were also numb. These sensations occurred in the day time; there was no special strain or other cause for them, except the constant labor of nursing. With the numbness, was motor weakness. There was a steady increase of the affection. The pain was worse at night, and for a week began in the shoulder externally, and ran down to the fingers.

Two points could be distinguished as such, 3-8 inch nearer on right than on left back of hand, and on palmar end of right index finger 1-8 inch nearer. Sense of prick was more acute on the right, but the sense of mere contact with a blunt steel was more acute on the left.

There was a tenderness over the nerve, at the bend of the elbow, and over the ulnar nerve. The action of biceps and of the extensors in forearm was not easy, there being a sense of stiffness. The faradlic contractility of the extensors of forearm was diminished; the galvanic contractility was increased, the muscles reacting to ten cells on the right, and to only fourteen, or perhaps thirteen, on the left. The flexors were not tested by electricity.
The galvanic current from fifteen cells was used, the positive pole being placed on the back of the neck, the negative passed over the muscles and held quietly over the nerves. After two applications, the faradic contractility of the muscles had improved. On the fourth visit, the sensation on back of the two hands was equal, and the same as it was on the left at the first visit. Ten days after I first saw her, it is recorded that she had no pain in the arm; it was strong and all right.

Soon after, other cases quite similar were seen, one seeming to originate from overwork in nursing, another from overuse of the arm in sewing and playing the piano, with, perhaps, a strain as predisposing cause; two others were from overwork in playing piano. In two cases, the electro-muscular contractility seemed increased on the affected side.

In some of these cases, the affection of the nerve perhaps hardly deserved the name inflammation, possibly congestion would be more correct, there being, indeed, only the first stage of inflammation where several of the functions were increased rather than diminished.

Of paramount importance to the patient is the fact, that all these cases, so far as I know, where treatment has been commenced early and persisted in, have recovered. Where treatment was delayed, the cure was longer in being reached, but generally could be expected. The longest duration was two years before treatment; treatment extended through three months with almost complete recovery.

The treatment consists in the application of either the faradic or galvanic current to the muscles and nerves affected. The galvanic current would probably be found more generally successful in a shorter time, though in many cases the other accomplishes all that is desired.

A few cases, as in Case III., may recover without electricity, but in most cases that agent will at least hasten a cure, and in other cases a cure has not been obtained after a year or more, without the use of the electricity, but followed soon after that agent was employed. It is not, then, always safe to wait for the unaided efforts of nature.

For many weeks past, the British authorities have been busily engaged in fitting out a hospital ship to send to the seat of war on the West Coast of Africa. Probably, before this, the Victor Emmanuel has been despatched on her errand of mercy. Originally a war steamship of more than 5000 tons, she was, several weeks ago, placed at the disposal of the medical department of the War Office, with the request that they should signify their wishes as to her equipment. No labor, mental or physical, and no expense have been spared to make the vessel in every respect complete as a hospital ship. She has been fitted by Messrs. Savory & Moore, of London, with a surgery in which is included every facility for dispensing, and also with a very complete operating table.

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Progress in Medicine.

REPORT ON SURGERY.

By J. Collins Warren, M.D., Boston.

PNEUMATIC ASPIRATION.

The appearance of Dr. Dieulafoy's treatise on the pneumatic aspiration of morbid fluids enables us to study somewhat more in detail the manner of using the aspirator and the advantages claimed for it as a means of diagnosis and treatment. The peculiarities of this instrument, in which it differs from others intended for the same purpose; consist, first, in the extreme fineness of the needles used for puncture, and, secondly, in the vacuum which is established in the instrument previous to puncture. To be properly used, a vacuum must be first created in the body of the instrument, to which the needle and tube must be attached before puncturing the region to be explored. This latter precaution is not always attended to by those not accustomed to its use, and the needle is first thrust in and attached subsequently, a proceeding which naturally sets at naught the peculiar advantages of the instrument. When the needle has passed a short distance through the tissues, the communication between the needle and the vacuum must be opened, thereby transmitting the aspiratory power to the needle itself, which may now be deliberately and cautiously pushed forward in search of the fluid. This, when reached, is instantly indicated by the jet which passes the index and fills the aspirator. Care should be taken not to press the parts to aid the flow, and they should be disturbed as little as possible; when a sufficient quantity of fluid has been removed, the needle should be gently withdrawn, the aspiratory force preventing any drops escaping from its extremity into the surrounding tissues. By observing the various precautions enjoined, the least possible amount of injury is inflicted upon the parts, and Dr. Dieulafoy claims to have "thrust these needles into almost every part of the body, into the joints, the liver, the spleen, the bladder, the intestines, the lungs and the meninges," without ever having seen consecutive accidents. Although time may doubtless prove this instrument to be extremely valuable in the diagnosis and treatment of certain diseases, we doubt if it will meet the enthusiastic and Frenchman-like expectations of its inventor. He states in regard to the value of the method, "by aspirations, therapeutics are simplified; all these different modes of treatment are fused into one; punctures made by means of the trocar, caustics and their eschars, incisions and their pathological sequences are disappearing day by day, and giving place to the aspiratory needle ... in one word, it is sufficient for almost every need."

Passing over the chapter concerning the treatment of hydatid cysts and abscesses of the liver by aspiration, we come to a subject of more interest to the surgeon, namely, the treatment of retention of urine by this means. The advantages claimed for this method over other methods of tapping the bladder are two-fold. It is said to be

both a perfectly harmless and a painless proceeding. The author states: "Its harmlessness does not seem to us so difficult to establish; it strongly recommends itself if, after ninety-eight punctures of the bladder, there is not a single accident to record. . . . In not one of them was found a trace of peritonitis, haemorrhage, or infiltration of urine; some of them were operated upon two or three times in the twenty-four hours, and for many successive days, without ever experi-
encing the least morbid symptom."

Under these circumstances, puncture of the bladder can be resorted to much more frequently than formerly, and the bladder repeatedly emptied, while the operator proceeds at his leisure to remove the ob-
struktion to the natural flow of urine. It should be performed, the author says, "whenever the first and the second attempt at catheteriza-
tion, aided by the other usual means, has failed to overcome the ob-
stacle. In cases of retention, both from enlarged prostate and from stricture, catheterization which could not be performed when the blad-
der was full was easy enough after the evacuation of the urine. It should, therefore, not be kept as a last resort, but should be employed early, rather than aggravate the cause of retention by repeated at-
ttempts to enter the bladder through the urethra. The spot chosen for the puncture is the same as that chosen for the supra-pubic puncture; that is, one or two centimetres above the pubes on the median line. Before performing the operation, it is important, as indeed in all cases in which this instrument is used, to assure one's self of the permeability of the needle about to be employed by passing through it a silver thread or a jet of water, as a few grains of rust or dust are liable to block up the opening. Needle No. 1 is the size generally used for this operation, being but one-third of a millimetre in diameter. This needle, attached to the tube of the aspirator, is inserted at the point above mentioned, and as soon as it has penetrated a short distance into the tissues the vacuum is established in it by opening communication with the body of the instrument. The needle is then pushed slowly for-
ward until a jet of urine into the chamber of the aspirator announces the arrival of the point within the walls of the bladder; it must then be introduced a short distance farther, to prevent its being driven out by the contraction of the bladder. So trifling an affair is this operation that the patient can get up and walk about as readily as after simple catheterization.

The success which not only Dr. Dieulafoy, but also many other sur-
geons, both in this and other countries, have met with in employing aspiration for the relief of retention of urine, together with the advan-
tages it possesses over other methods, are strong arguments in its favor. We believe, however, that one fatal case has been reported as occur-
ing in one of the French hospitals. The needle, owing to certain peculiarities in its make, broke, after piercing the bladder, and a quan-
tity of urine, flowing through the fragment transfixing the wall of the bladder, ran into the peritoneal cavity, causing inflammation and death.

Some cases of spina bifida are given, treated by aspiration, which appears to be a valuable aid in the treatment of this affliction.

The treatment of strangulated hernia by aspiration has been pretty freely discussed in the medical journals for some time past, and in a former report we have alluded to cases of this kind. The chapter on
this subject is little more than a résumé of what has already been given to the medical public. The object is to remove the liquids and gases which distend the intestine; these being, according to Dieulafoy, almost always the true obstacle to the reduction of strangulated hernia. The harmlessness of this puncture has, we think, from the number of cases on record, been abundantly proved. It is advised in all cases, except those of long duration where there is danger of gangrene or intestinal ulcerations, and ought to be performed as soon as the taxis, having been once methodically tried, has failed to afford good results. The plan of operating is essentially the same as that we have already described; the appearance of a thick, feculent liquid indicates that the intestine has been punctured. At the same moment, bubbles of air bursting forth on the surface of the liquid show that gases have escaped. The presence of this gas often diminishes the aspiratory power to such an extent that everything comes to a stand-still, and the instrument must be emptied and the vacuum reproduced in order to complete the operation. A more simple way of effecting the same object, and which, in a number of cases, might be placed in successful competition with the aspirator, is illustrated by a case reported in the Chicago Medical Journal for August. A large femoral hernia, three inches in diameter and five inches long, had been strangulated over twenty-four hours; taxis had failed, and an operation was abandoned on account of dangerous symptoms produced by chloroform. The hernia tumor was then punctured by an ordinary subcutaneous syringe, and eight and a half ounces of bloody serum, of a faecal odor, was drawn off, after which the hernia reduced itself spontaneously. The fluid contents of the strangulated gut were considered by Dr. Knox, the writer of the article, to be largely transuded serum, the result of compression of the veins at the hernial ring. There might be, however, many cases where the fluid needed the persausion of a vacuum to make its appearance.

The treatment of effusions into the knee-joint by aspiration is considered by the author to be perfectly harmless, his opinion being based upon one hundred and fifty harmless punctures. This confidence in the operation is not, however, shared fully by other French surgeons, who, moreover, are not inclined to admit its superiority as a method of treating this affection. A committee appointed by the Société de Chirurgie to investigate this subject reported that the new method possessed no advantages over the ordinary modes of treatment, and should only be used in those cases of chronic hydrarthrosis where the classical treatment had failed (Gazette Hebdomadaire, May 30, 1873). M. Dubreuil, in addition to his fatal case of aspiration for sanguineous effusion into the joint following fracture of the patella, reported, also, a case of death following puncture for the cure of chronic effusion. Add to this a fatal case reported by Dr. MacDonnell, of Dublin, a simple chronic hydrarthrosis resulting in death a week after puncture, and we have sufficient data to make this treatment at least unpopular, if it do not escape total condemnation. Nevertheless, we find that in one case puncture was performed without accident of any kind, thirty times, and cases are given where the patient is allowed to walk home immediately after the operation. The success of the author's treatment is thus described: "Experience has demonstrated that a certain number of large, painful hydrarthroses, of some days'
standing, give way rapidly after one or two aspirations followed by compression. In other circumstances, the treatment lasts twelve or fifteen days, and in rare instances attains to three weeks." The author recommends an India-rubber or linen bandage to be applied to the joint, giving uniform and continuous pressure, the point selected for puncture being left exposed. This is usually the outer synovial cul-de-sac, at the level of the upper extremity of the patella and at about two centimetres outside that bone. The point of puncture may be sealed with collodion for precaution's sake, and firm pressure is then applied to the joint by thick wadding and bandages, and the leg should be kept in such a position as to have the foot slightly elevated. There are two striking points in the collection of cases given, namely, the apparent harmlessness of the treatment, and the rapidity of the cure.

Under the head of treatment of effusions into the cellular tissues, we find several cases of psoas abscess connected with disease of the vertebrae where aspiration was successfully employed. In those cases which we have seen, aspiration of any considerable amount of fluid has been impossible, owing to the blocking up of the instrument by the large amount of débris which these abscesses contain.

**Hæmorrhage during Operations.**

Prof. Esmarch, the well-known surgeon of Kiel, has given us in No. 58 of Volkman's *Klinischer Vorträge*, an interesting account of his method of preventing haemorrhage in operations upon the extremities. It consists in bandaging the limb with an elastic bandage, from its extremity to a convenient point above the part to be operated upon, sufficiently firm to empty it completely of the blood which it contains. Immediately above the portion which has thus been deprived of its blood, a tourniquet in the form of several turns of India-rubber tubing is applied, which effectually prevents any return of the blood to the emptied part, after the elastic bandage has been removed, and possesses a great advantage in being applicable to any portion of the extremity. The limb thus so effectually deprived of blood, enables the surgeon to operate as conveniently, as far as hæmorrhage is concerned, as upon the dead subject. The advantages of this proceeding are particularly well shown in a case of extensive necrosis of both tibiae, of long standing, the operation for the removal of the sequestra being described at length. Both legs having been completely deprived of blood to a point just above the knee, where the rubber tubing is firmly applied, the dead portions of bone were simultaneously removed from both tibiae by Dr. Esmarch and his assistant, without the loss of so much as a drop of blood, a matter of no small advantage to the patient, who, although much broken down by the disease, recovered rapidly from the effects of the operation.

This method can be employed in amputations and all other operations on the extremities, and also in operations upon the male genital organs. The surgeon is enabled not only to operate with greater facility and fewer assistants, but can also distinguish much more readily the diseased from the healthy parts.

Dr. Esmarch suggests that, in bloody operations upon the trunk, neck and head, the India-rubber tourniquet may be applied to all four extremities, which could then become reservoirs of blood to be drawn
upon in case of excessive haemorrhage. Although it might be thought that serious disturbances in the circulation and innervation of the limb might result, no accident of this kind has occurred in a large number of operations in which this method has been employed, although in some cases the blood was withheld for over one hour. It would not be advisable, however, to attempt this in parts infiltrated with foul pus, for fear of septic infection.

Professor Billroth has also operated in this way in a large number of cases, and appears much gratified with the result. Esmarch's method has, indeed, been pretty generally adopted throughout Germany, where, until the present time, but few attempts to prevent haemorrhage in this way have been made. As long ago as 1853, Langenbeck was in the habit of bandaging the limb with an ordinary roller bandage, and applying the tourniquet previous to amputation; but later, he has abandoned it, and of late years it has been the almost universal custom in Germany, as in many other countries of Europe, to apply merely digital compression to the artery in amputations. Previous to Esmarch's attempts, the elastic bandage had never been used for such a purpose. We are somewhat surprised at the amount of comments which this article has excited, for we had supposed this method of saving blood had been much more extensively employed than it seems to have been. It has been the custom at the Massachusetts General Hospital, for over twenty years, to apply a roller bandage firmly to the limb, from the tip of the foot up to the tourniquet, previous to an amputation, when it was desirable to economize blood. An ordinary linen or cotton bandage has answered the purpose quite as well as Prof. Esmarch's elastic bandage, and has the advantages of being always obtainable and much cheaper. The use of the bandage applied in this way has not been confined to amputation, but has been used in operating for necrosis, in resections, in exploratory incisions, both in the arm and leg. In place of the India-rubber tubing we have the metallic hospital-tourniquet, by far the most durable and convenient instrument of the kind we have seen. The method has, however, been, of late years, confined chiefly to amputations. Much the same plan has been advised by Erichsen, and we are inclined to think that it has been much more extensively resorted to, both in this country and in England, than has been supposed.

Prof. Verneuil, also, has busied himself of late, in attempts to reduce haemorrhage to a minimum in certain operations. He has devised a new method of amputation, calculated, he thinks, to do away with arterial compression, whether by fingers or tourniquet, which he considers an exciting cause of phlebitis and sloughing of the integument from pressure, especially in patients who are fat. The portion to be amputated is treated very much as a tumor would be. When antero-posterior flaps are formed, a common histontry is all that is required for incising the soft parts, which are divided in successive layers, the bloodvessels being tied as they are met with and before being divided. Veins, as well as arteries, are closed with ligatures. The bone is divided as in the usual methods. When the principal bloodvessels are so situated that they can be included in one of the flaps, it is the practice with Prof. Verneuil to divide the bone before forming this flap. Twenty-one cases are reported as having been operated upon by him in this manner, viz.: Eight disarticulations at the shoulder, three am-
putations of the thigh, two amputations of the arm, six amputations of the leg, and two coxo-femoral disarticulations. He recommends this method as having the advantages:—1. Of enabling the surgeon to operate with fewer assistants; 2. The avoidance of haemorrhage; 3. Obviating the risk of phlebitis from pressure necessary to control hæmorrhage (Gazette Médicale de Paris). We can conceive of this method being of advantage when the surgeon has no skilled assistance at hand, but in no other case could the advantages offset the tediousness and bungling character of such an operation, which, moreover, would be likely to leave a jagged and unsurgical wound in the stump.

Professor Verneuil claims also to have devised a method for preventing the entrance of blood into the buccal cavity during resections of the maxillary bones, thereby doing away with the necessity for performing tracheotomy to prevent hæmorrhage into the trachea. The important point in this method consists in reserving the incisions of the mucous membrane of the buccal cavity until the last moment. A large tumor, of the size of two fists, growing from the horizontal ramus of the inferior maxilla, was removed in this way. An incision having been made along the inferior border of the bone, the tumor was thoroughly exposed by dissecting up the anterior and posterior flaps, the mucous membrane being left intact. Two small apertures were then made in the mucous membrane, at the anterior and posterior extremities of the diseased bone, and a chain saw having been introduced at these points, the bone was resected. The écraseur then separated the tumor from the base of the tongue, the chain being introduced through the holes made for resecting the bone. This left the growth hanging from the cheek by the anterior fold of mucous membrane, the division of which completed the operation.

In resecting the superior maxilla, M. Verneuil makes a V-shaped cut through the outer integument, the apex of which is near the ala of the nose, while the branches include the borders of the malar bone. This flap is reflected, and before dividing the bone at any point, the nasal fossa of the corresponding side is plugged. The malar bone and the ascending branch of the maxillary bone are next divided by bone forceps. The palatine portion is then divided by powerful bone forceps, and the final step in the operation is to separate the hard from the soft palate. In this way, hæmorrhage into the buccal cavity is prevented until the last stages of the operation.

A case of amputation without hæmorrhage is reported in the American Journal of the Medical Sciences, by Dr. E. P. Sale, where nature provided against bleeding in her own way. The patient, while chopping wood, nearly cut off his foot at the tarso-metatarsal articulation. He suffered so much from shock and hemorrhage that amputation was postponed a week, when the part of the foot beyond the wound became gangrenous. Amputation was performed just above the ankle; no hæmorrhage followed the operation. The patient recovered without an unfavorable symptom. It was accounted for by thrombosis of the various arteries, brought on "by anaemia, which rendered the blood hyperinotic, as in the formation of heat-clot after a profuse post-partum hæmorrhage."
Du Traitement des Rétrécissements de l'Urètre par la Dilatation progressive. Par T. B. Curtis, Docteur en Médecine de la Faculté de Paris, etc. etc.

This work, to which was awarded the Civiale prize for 1872, is likely to be of great benefit in recalling to the profession the value and importance of the treatment of stricture by gradual dilatation. In the introduction, the author disclaims any attempt to decry urethrotomy, a proper operation in certain cases; he only intends to describe, minutely and at length, the method of progressive dilatation. Progressive dilatation of strictures is effected by the introduction of proper bougies or sounds of a regularly increasing calibre. In the introduction of any instrument into the urethra, we have to consider whether it shall be withdrawn at once or allowed to remain a longer or shorter time. The method of treating a stricture, by passing a bougie and at once withdrawing it, and at the next sitting passing a larger one, and so on, is called dilatation temporaire, or interrupted dilatation. The method of treating a stricture by allowing a bougie to remain several days, more or less, in the urethra, and then replacing it by a larger one, is called dilatation permanente, or continued dilatation. The author does not mean to include in his subject the treatment of strictures by sudden dilatation, whether after the method of Perrève, Holt, Voillemier, or Thompson. All of these methods belong to the treatment by violence, and not gentleness.

Chapter II. contains an interesting historical account of the treatment of stricture. The instruments for the interrupted dilatation, or occasional dilatation (dilatation temporaire), are bougies with a conical end, terminating in a small, olive-shaped bulb. The rules for proceeding to dilate a stricture are given very minutely and carefully, and will well repay perusal and observance. In the continued dilatation (dilatation permanente), the instruments used must be of good manufacture, in order to withstand the corrosive action of the urine. The method of retaining the instrument in the urethra, by tying it to the hairs of the pubes, is described and figured. This method is very convenient, and was employed by the writer of this review more than twelve years ago. The instrument should not be passed into the bladder, on account of the vesical irritation it might cause. During the treatment by continued dilatation (dilatation permanente), the patient will keep his chamber, if not his bed. When the urethra will admit a bougie of the calibre of No. 12 or 14 of the French scale, continued dilatation can be omitted, and the interrupted or occasional substituted. The theories of the action of bougies are discussed in Chap. V. In Chap. VI., is a detailed enumeration of the symptoms, serious and slight, that dilatation may cause. The author considers occasional dilatation (dilatation temporaire) as the best method of treating all simple cases of stricture.

In the last chapter, the indications for and against the methods of dilatation are considered, and the history and treatment of four cases are given at length. The work closes with a table of seventy cases of stricture, treated at the Necker Hospital; the age of the patients,
the mode of treatment, and the calibre of the urethra at the begin-
ing and end of treatment, are given. This table is interesting and
valuable. On the whole, this prize essay by Dr. Curtis will com-
mand itself very favorably to the profession.

Transactions of the Medical Society of New Jersey, for the year 1872.
The 106th annual session of the State Medical Society of New Jer-
sey was held at Paterson. The President, Charles Hasbrouck, M.D.,
delivered the annual address, his topic being the personal relations of
the profession to quackery. He showed that, in consequence of the
traditional prejudices of medical men against the popularizing of
medical knowledge, we are ourselves to be regarded as responsible in
a measure for the existence and success of homoeopathy, Thompsonian-
ism, and other forms of quackery. The popular ignorance of which
Dr. Hasbrouck complains, and which tends to the promotion of quack-
ery, is not so much the want of a thorough acquaintance with the
principles of medicine as a science, and its details as an art, but the
absolute and profound ignorance of everything relating to medicine;
ignorance, not only of what is known, but ignorance, also, of the fact
that there is much in medicine that is not known. A familiarity with
a few of the leading general principles of our art would enable the
public to discriminate intelligently between the educated and conscien-
tious physician and the irregular and pretentious charlatan. The
address forms a carefully-prepared, able paper, which we would recom-
mand to the attention of the general reader as well as to physicians.

Medical men interested in the history of the Hunterdon District So-
ciety, will find that subject exhaustively treated in 123 pages of this
volume, in the course of which the lives of many of the deceased
local celebrities of that section are minutely detailed, the epitaphs on
their tomb-stones being introduced as far as practicable.

Dr. G. H. Harrison read a paper on the "Diseases prevalent in the
Valley of the Delaware." We are at a loss to determine why this
paper should be pretentiously called an "Essay," a term which is
commonly employed to designate the thoughts of a writer on any
given subject, but in elucidation of some theory or doctrine. If the
barren description of the prevalent diseases of any locality can be
called an essay, the term might with equal propriety be applied to
Worcester's Dictionary.

The remainder of the volume is made up of the reports of the va-
rious standing committees, on the health of the different counties, in-
terspersed with the history of several cases of more than ordinary in-
terest.

BOOKS AND PAMPHLETS RECEIVED.

Nature Series. Origin and Metamorphoses of Insects. By Sir John
Transactions of the New Hampshire Medical Society. 1873.
Pp. 120.
A Handbook of the Theory and Practice of Medicine. By Frederic
1874. Pp. 1052. (For sale by James Campbell & Son.)
Vol. Lxxxix. No. 25b
Of the many distinguished men who have passed away during the year now at its close, the greatest has been reserved for the last. Louis John Rudolph Agassiz expired at Cambridge, after a short illness, on the evening of Sunday, December 14th, in his sixty-seventh year. Though many equally distinguished remain, there is probably no one who has been familiarly known in so many countries, and whose death will be so universally deplored throughout the civilized world. Agassiz was born in 1807, in Switzerland, in the parish of Mottier, between the lakes of Neuchâtel and Morat. During his boyhood, he was remarkable for scholastic learning as well as for the study of plants and animals. When only seventeen, he began at Zurich the study of medicine, which he pursued at Heidelberg, and at Munich, where, in 1831, he obtained the degree of M.D. His life as a medical student appears to have been protracted by the interest he took in kindred branches of science, and particularly by the time given to assist Martius in the ichthyological part of his work on Brazil, and later, to write his own work on the "Natural History of the Fresh-Water Fishes of Europe." In 1832, he was appointed Professor of Natural History at Neuchâtel, where he remained fourteen years, with the exception of the time given to some journeys. It was here that he conceived and elaborated the idea of the "glacial theory," with which his name will be forever associated. He came to America in 1846, when in the prime of life, with a large stock of experience, and with his abilities fully developed, while his force and enthusiasm were unabated,—the latter, indeed, only left him with life. The business on which he came being despatched, he decided to remain, influenced chiefly by the offers of Professor Bache, of the Coast Survey, which enabled him to study the marine fauna all along the shore. The next year saw the foundation of the Lawrence Scientific School, at Cambridge, where, having accepted the Professorship of Zoology and Geology, Agassiz made his home for the future. Since then, his life has been one of constant study and of work at its great object, the Museum of Comparative Zoology, which, though yet in its infancy, is already a noble monument to his memory. His most important journeys have been that up the Amazon some eight years ago, and the "Hassler Expedition" in 1871-2. The opening, last summer, of the School of Natural History at Penikese is too fresh in the minds of all, to need more than a passing allusion.
Professor Agassiz has of late been prominent for his steadfast opposition to the Darwinian hypothesis. This is not the place for any discussion of the theory, but even his opponents must admit that to face the general, reckless enthusiasm with which the theory has been received in this country, to maintain that the evidence advanced was not only insufficient, but unfounded, was the part of a bold and able man. His course could not fail to be offensive to many, especially to those with minds of such peculiar precocity, that when scarcely beyond boyhood, they are certain that one of the most intricate theories ever advanced does not admit of a moment's question. The coming number of the Atlantic Monthly will contain the first, and unfortunately the last, of a series of papers in which the Professor meant to define and maintain his position in this controversy. Professor Agassiz was celebrated for his amiability and charming personal qualities, which he possessed to a degree which is rarely joined to such indfatigable perseverance and steadfastness of purpose as his. Unsparing of himself in his work, he was an exacting leader, but a sympathetic and encouraging instructor. His death leaves a place vacant in the scientific world and in the community, which it will be difficult to fill.

Canuet, Moutard-Martín, and Others on the Treatment of Asthma by Baths of Compressed Air.*—A paper was read by M. Canuet, at a recent meeting of the Therapeutical Society of Paris, on a case of humid asthma of eighteen years' standing, and due to a severe double broncho-pneumonia, which was cured by means of the compressed air-bath, and the paper was followed by an interesting discussion. [This plan of treatment of certain respiratory diseases has an obviously scientific basis, if properly studied and applied, but, so far as we know, has been little if at all tested by practice in this country.—Ed. M. R.] At first the fits occurred at irregular intervals, as much as six months sometimes elapsing between them. The spasmodic character of the fit was well marked, and after several days of severe spasm this would give place to severe catarrh. After about ten days, the attack passed away, the respiration became normal, and there remained only a little grey morning expectoration. The catarrh gradually increased, and great benefit was derived from two visits to the waters of Cauterets. Eight years from the development of the malady, the catarrhal susceptibility became extreme, and every month there were one or two attacks, generally lasting ten days. The patient now was troubled with flatulent dyspepsia, and became very anemic. A third visit to Cauterets, and subsequently one to Eaux Bonnes, were alike unproductive of relief. It was observed that, as the malady became chronic, the spasmodic element became less predominant, and that, too, before the administration of such remedies as arsenic and the iodide and bromide of potassium.

It was under these conditions that the compressed air-baths were

* Gazette Médicale de Paris, May, 1873.
first tried in October, 1871, under the direction of M. Leval-Piquechef. During the first trial, with a pressure of 7 centimetres (3.36 inches) of mercury, the pulse ranged from 72 to 80, and the respirations were 18 in the minute. Gradually, the bath being taken daily, the respirations diminished; and at the twelfth sitting, under a pressure of 7 centimetres, they had fallen to 9. The appetite and strength improved. During the treatment, the attacks that did occur were milder.

At the thirtieth sitting, with a pressure of 15 centimetres, the pulse fell to 68, and the respirations to 6. In ordinary air the numbers were 76 and 18. After three series of thirty baths each, ninety in all, the general state was very satisfactory; appetite and sleep returned. Considerable atmospheric variations, cold and thaw following, were passed through without annoyance; a little bronchial expectoration in the morning being the only remnant of the asthma.

With respect to the mode of operation of the compressed air, it is hardly probable that the good was done by mere mechanical pressure of the air, which rarely was 20 centimetres over what is normal. It seems that we look to the oxygen as the active curative agent. Increased supply of oxygen, without increase of atmospheric pressure, has proved beneficial in the spasmodic complications of anaemia and chlorosis.

Placing patients in a bell-chamber was observed to overcome the paroxysms of whooping cough when the disease was in its decline.

In the description in the paper, M. Martineau mentioned the success of the compressed air-bath in simple uncomplicated chlorosis obtained by M. Journadet.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Saturday, December 6, 1873.)

Operations were performed in the following cases:—Abscess of Gluteal Region, Fistula in Ano, Tumor of Leg, Gun-shot Wound of Hand, Harelip, Fistula of Thigh and Groin.

Abscess—in an adult. One year ago, while shoveling, the patient sprained his hip, and had suffered pain and tenderness at a point corresponding with the sacro-iliac synchondrosis. There is, now, swelling and deep fluctuation at the point described. Dr. Bigelow punctured the most prominent part with a trocar, and then freely laid open a cavity, two inches from the surface, by a T incision through the overlying integument and glutens muscle, evacuating about three ounces of pus. The finger reached a small aperture, which passed within the pelvis near the sciatic ligament.

Fistula—in a man, and quite superficial. Dr. Cabot passed a probe into it, dissected out the fistulous tract, and united with stitches the wound thus made.

Myxo-sarcomatos Tumor of Leg.—The patient was a man of about 50 years. Eight months ago, he bruised his leg, and a growth, of the size of a pea, soon after appeared at the contused point. This increased slowly, with some pain, until September last, since when it has rapidly grown to its present size. Within a week, ulceration had commenced, which, on Thursday, was the seat of hemorrhage to the amount of a pint. The tumor, situated on the middle of the inner side of the right leg, was prominent and almost spherical, of the size of an orange, nodulated upon its surface, very elastic and firmly attached at its base, involving an apparently enlarged saphenous vein, which was indurated above and below the growth, and, as Dr.
Bigelow remarked, considering the varicose condition of the other leg, it suggested a tumor originating in varix and mainly composed of coagula. As usual, the leg was bandaged from toe to hip, the tourniquet applied and the bandage removed. A straight incision of five inches was made, turning out a good deal of coagulum. The operator then readily detached, with the finger, from its bed in the muscles, an opaque, soft, sarcomatous tumor, and subsequently dissected from the adjoining skin and intermuscular spaces, an almost equal amount of myxomatous, slimy, jelly-like material, the convoluted outline of which, following the muscular interstices, had resembled, as above stated, inflamed varicose veins, although it proved to be transformed connective tissue. Immediate microscopical examination of the growth confirmed its myxomatous character. The disease, though carefully removed, would, Dr. Bigelow stated, be very sure to return locally.

Gun-shot Wound of Hand.—A young adult had been wounded in the palm of the hand with a buck-shot fired from a pistol. Prolonged search, by Dr. Cabot, failed to discover the foreign body. A counter opening was made at the wrist, to ensure adequate drainage of pus.

Hare-lip—in a baby. This was single, complicated with cleft palate, and extended into the nostril. Dr. Bigelow operated by the method described in a previous report, and afterwards placed upon the cheeks, to prevent their retraction, an hour-glass shaped adhesive plaster united across the lip by a long and very narrow band. The hardened lymph accumulates under this band, and, pressing upon the cicatrix, generally requires its renewal on the third day, to prevent ulceration. Union depends largely on the plastic power of the subject, and, in case of failure, the child should be sent home, to return when in better health.

Sinuses of Thigh and Groin.—The result of an old abscess. These were thoroughly explored by Dr. Cabot, but found to be unconnected with bone.

H. H. A. Beach.

BOSTON CITY HOSPITAL.

Last Friday, December 12, operations were performed as follows:—

Dr. Thorndike excised an Epithelial Cancer from the lower lip of a man sixty years old. The patient had for many years used a clay pipe in smoking. The disease began ten years ago as a warty growth, and had developed until two-thirds of the lip had become involved. The diseased part was removed by a V-shaped incision.

To restore the lip, after this extensive loss of substance, Dr. Thorndike performed a plastic operation as follows. He made an incision through the skin and muscles of the cheek, extending, from the angle of the mouth, two inches, directly backward; thence the cut was carried at a right angle, downward, one inch. The incision divided the tissues of the cheek down upon, but not through, the buccal mucous membrane; from the inner surface of the upper flap of the cheek, this mucous membrane was dissected to a third of an inch in width, and was then divided, thus forming a part of the lower flap. The lip was dissected from the lower jaw sufficiently to allow of easy adaptation of the parts, and the two arms of the V-shaped wound were apposed and held in place by silver-wire sutures passed deeply. The long incision in the cheek became by this means a part of the lower lip, whose mucous covering was supplied by the membrane dissected from the cheek. The operation was completed by adjusting the edges of the wound with silk sutures, and by stitching the fold of mucous membrane to the outer margin of the new lip.

Dr. Thorndike remarked that this operation not only restored the shape of the mouth very perfectly, but gave a chance for healing without tension on the parts.

A Secondary Growth of Scirrhous Tumor of the Breast was removed by
Dr. Thorne. The last operation was performed a year ago. Soon after the wound healed, the disease returned in the upper part of the cicatrix and had developed until, at present, a movable growth of the size of a large orange involved the tendon of the pectoralis major muscle. No glands in the axilla showed the invasion of the disease, and the internal organs appeared to be healthy.

On Tuesday, December 9, Dr. Cheever performed, before the medical class, the operation of Tenotomy of the Hamstring Tendons. The patient was a girl, twenty-five years old, who had, on the right side, talipes varus and contraction of the knee; on the left, talipes valgus, which was relieved by apparatus. Dr. Cheever proposed to treat the knee first, and afterwards to cut the tendons which were involved in the varus. The tendons of the biceps, semi-membranosus and semi-tendinosus were divided. Extension by weight was to be applied on the fourth day.

Dr. Cheever amputated the last phalanx of a finger affected with Onychia Maligna, of several years' duration. He remarked that removal of the whole diseased tissue, including the matrix, down to the periosteum, was sometimes successful. In the case of this laboring man, amputation was the speediest and surest.

Perineal Section was performed in a case of Rupture of the Urethra, with Extravasation of Urine. A boy, fifteen years old, fell on his perineum on the evening of the 7th, two days ago. The patient now presents a distended bladder, with great edema of the penis, scrotum and perineum. A large, black slough covers the perineum. The thighs and abdomen are a little infiltrated. A few punctures in the edematous prepuce gave exit to a fluid smelling like urine.

Dr. Cheever slit up the prepuce, and tried several catheters in the urethra. None passed beyond the bulbous portion. A large incision was carried down the middle line of the perineum, from the scrotum to the sphincter ani. The point of an elastic bougie in the urethra was immediately felt and brought out of the wound. The cavity under the arch of the pubes was filled with clots and sloughs. A careful dissection reached the membranous urethra, the knife being pushed in under the pubes, guided by the finger in the rectum. A great quantity of clear urine was drawn off, and a large elastic catheter, carried through the perineum, was fastened in the bladder. Free incisions were made in the scrotum and penis.

Correspondence.

Anesthesia in Europe.

Messrs. Editors,—At the present juncture, when the relative merits of ether and chloroform as anesthetic agents are being widely discussed, it may be somewhat interesting to notice certain equivocal points connected with the theory and practice of chloroformization, and particularly to call attention to the manifold contradictions with which the whole subject of anesthesia is beset in standard European works. Among those who practise and uphold etherization, great unanimity may be said to exist on all important points; the laws of etherization as set forth by Prof. H. J. Bigelow (Boston Med. and Surg. Journal, Nov. 20, 1873) form a code of clear, simple rules, easy to understand and to follow, and from which few will dissent. With chloroform, the case is very different; a few leading examples, taken almost at hazard, and representing the best contemporary practice in England and France, will show immediately how little agreement exists on such all-important points as the degree of safety of the use of chloroform, the nature and mode of action of the dangerous properties which even its advocates almost universally admit it to possess, the counter-indications to its use, the premonitory signs of danger and the efficacy of restorative measures in case of accident. It is evident that such equivocal testimony and divergent opin-
ions as we shall have occasion to record must point to a degree of uncertainty and insecurity attending the use of chloroform which contrasts very unfavorably with the simplicity of the theory and practice of etherization.

As regards anaesthesia, European surgeons may be pretty fairly divided into two classes: those who have never yet met with a death from chloroform, and those, less numerous, whose practice has not been equally fortunate. The first are naturally optimists; they take a very confident view of the innocuity of chloroform, which they say is "free from danger if properly used" (Lister, in Holmes' System of Surgery, vol. v. p. 496), and preferable to ether on the grounds of less odor and bulk, and greater power. With those who take this sanguine view, hardly any counter-indications to anaesthesia can be said to exist: cardiac disease, for instance, is held rather to indicate, than debar from, the use of chloroform (Syme, Lister); the same is true of collapse following severe injury and gun-shot wounds (Lister, Longmore in Holmes's Surgery, vol. ii. p. 244). Should danger impend, it may be recognized in time, some say by the state of the pulse, others by the respiration, and forestalled by simple and efficient measures, so that a fatal result must be due to carelessness or inexperience.

Those, on the other hand, who have once experienced the shock of seeing a patient pass under their hands from sleep into death, take a wholly different view; they are pessimists, not only as regards chloroform, but all anaesthesia. They fully admit the noxious qualities of chloroform, which may be manifested in a variety of ways, and at all stages of anaesthetic action; the fatal accident is generally supposed to take the form of syncope, due to direct myo-paralysis of the heart (Snow on Chloroform, &c., Gosselin, Clin. Chir. p. 22), or to paralysis of the medulla oblongata (Lallemand and Perrin, Gosselin, Guyon), or to some as yet incomprehensible agency (Giraldes, Dict. de Med. et de Chir. Prat., vol. ii. p. 247); others attribute the fatal result to asphyxia, caused by centric paralysis (Gosselin, Lister), or by laryngeal spasm (Devergie, Black), or by falling back of the tongue (Hergott, and many others). Besides all these noxious modes of action, which are more or less dependent on an over-dose of the drug, and which can be at least understood, if not foreseen and even sometimes forestalled, the advocates of chloroform are obliged to admit the existence of other rarer forms of fatal toxic action, as the "congestive form" of Gosselin (loc. cit., p. 24), in which neither syncope nor asphyxia are recognizable, or that inscrutable form of sideration which depends for its manifestation on the so-called "chloroformic idiosyncrasy" of Robert (Lister, Gosselin, Guyon); this unfortunate predisposition to sudden death under chloroform offers no sign by which its existence may be even suspected; it is invoked in order to account for cases where chloroform kills suddenly, without warning, and irrespectively of the dose inhaled, often in trivial cases, where only partial anaesthesia had been attempted (see Lister, loc. cit., p. 485, Giraldes, loc. cit., p. 248). To complete this long list of death-producing agencies, we venture to suggest that asphyxia by suffocation (according to the mechanism set forth by Dr. Bigelow in his comments on Dr. Lake's case) be added, as likely to have been possibly overlooked in some cases of supposed chloroform poisoning.

Is the peril in any known proportion to the amount of chloroform inhaled? According to some authors (Giraldes, p. 244) in the majority of fatal cases, the dose had been very small, often, apparently, insignificant, and certainly quite insufficient to procure the benefits of anaesthesia (fifteen drops, a coffee spoonful). Lister, however, says that except for those rare cases of death which we must attribute to the "chloroformic idiosyncrasy," "the explanation must be found in an over-dose of this potent narcotic from too long-continued administration" (loc. cit., p. 488). He, nevertheless, admits that in a considerable proportion of cases "death has taken place suddenly, at the commencement of an operation with imperfect administration of chloroform, which stands to the fatal event in the relation of an accident concomitant (?) or rather a preventive insufficiently used" (p. 484). What conclusion can we allowably come to from these conflicting statements? Should
the chloroformist aim at producing the full narcotic and anesthetic action of chloroform, or is it safe for him to limit himself strictly to the production of insensibility to pain?

Such manifold perils being admitted to exist, the pessimist is naturally led to recognize numerous counter-indications to the exhibition of chloroform; cardiac disease, which the more fortunate Lister considers to be rather an indication than otherwise, is with him the first among the counter-indications (Gosselin, Guyon, Giraldès); others are chronic alcoholism (Nélaton, Guyon, Gosselin); debility consequent on haemorrhage or anterior disease (Gosselin, Giraldès); intense mental excitement at the moment of injury (Giraldès); collapse following severe injury, or even the unapparent shock, produced by a simple dislocation (Gosselin, loc. cit., p. 18). By strict obedience to these many counter-indications (our knowledge of which is still incomplete, says Prof. Gosselin), the perils of anesthesia by chloroform may, to a certain extent, be avoided; but, even though these numerous restrictions to anesthesia be complied with, the chloroformic idiosyncrasy may yet make itself apparent by the sudden death of the patient, however satisfactory a subject he may have appeared before being put to the test.

How may the approach of danger be recognized, in cases where death does not occur altogether without warning? By attentively watching the pulse, says the majority. Not so, say Lister and Sedillot, the pulse ought rather to be disregarded, in order that undivided attention may be given to the state of the respiration.

It certainly seems strange to us that our European contemporaries should still be willing to accept the well-known dangers of chloroform, or else deprive their patients of the benefits of anesthesia, rather than take the trouble to give ether a trial. One reason of this inertness is doubtless the fact that the majority of surgeons go through a life-time of busy practice without meeting with one disastrous case; they remain extremists, satisfied with chloroform and with themselves, and seeing no reason to change their practice. The unfortunate pessimist, on the other hand, goes on with chloroform through vis inertie; he either seeks every pretext to withhold anesthesia, or else he uses it in a timid, intellectual manner, operating anxiously on half-conscious patients, and even then fearful of exposing himself by incomplete administration to the very danger he seeks to avoid; that this is no exaggeration, anyone who is familiar with the practice in foreign hospitals can testify. "Why not try ether?" we would say to these sadder, but not wiser men; but they shake their heads at the proposal; to them all anesthesia has lost its charms; ether, they say, causes fewer deaths only because less frequently given (Guyon), or because less potent (Lister), or else, to support their distrust, they point to cases of death during etherization like that of Dr. Lake, lately so thoroughly disposed of by Prof. Bigelow.

From this short survey of the mental state of the profession in Europe with regard to anaesthetics, we have cause to fear that it may be useless to look to our professional brethren for any initiative of change for the better; no movement in favor of ether can be expected to take place until the necessity thereof is felt and enforced upon the profession by the public at large. With this end in view, it may be hoped that such cases as that of Mrs. Crie, with all the attendant publicity, may not have occurred in vain.

T. B. CURTIS, M.D.

NEW ORLEANS, LA., NOVEMBER 16, 1873.

MESSRS. EDITORS,—In my letter of the 14th, I recorded some experiments upon the action of black vomit of yellow fever upon living animals, which led to the conclusion that the absorption of black vomit, after it had undergone putrefactive changes in the stomach of the yellow fever patient, might be the cause of death in this disease; and I was led by these results to employ the sulpho-carbolate of lime.

The following case, which was the first in which I used this remedy, presents many points of interest.
CORRESPONDENCE.

D. P., native of Italy; aged 18; has resided in New Orleans six years; residence, St. Anne St., near Levee; had a slight chill, followed by fever, October 14th, 1873; entered Charity Hospital October 16th, 42, P.M., with hot skin and rapid pulse. Breath offensive; face red; great capillary congestion generally. Conjunctiva of eyes congested and yellow. Body emits an offensive smell. Tongue red at edges and tip, and coated with yellow fur in centre; gums red. Patient complains of some pain in head, lumbar region and extremities.

8 o'clock, P.M.—Pulse 106; respiration 28; temperature of axilla 104°.

R. Potassii bromidi, 3ij.; Liquoris ammonic acetatis, 13iv. Tablespoonful every four hours.

October 17th, 8, A.M.—Patient restless. Complains of intense pain in the head and extremities, back and epigastrium; also of nausea. Has passed no urine since entering the hospital; when the catheter was introduced, only one fluid ounce was drawn off, which was found to be loaded with albumen and bile. For the relief of the nausea, an ice-bag was ordered to be placed upon the epigastrium; for the relief of the suppression of urine, ice-cold water was thrown up the rectum in large quantities. The injections of ice-water had the desired effect, and caused the excretion and evacuation of a considerable amount of urine, which was heavily loaded with albumen.

In order to prevent septic changes in the black vomit, if it should be formed, I ordered the following:

R. Sodii sulpho-carbolatis, 5i.

Divide into three powders. One powder, dissolved in a wineglassful of water, every three hours.

Small quantities of brandy, largely diluted with water, water charged with carboxylic acid gas, and iced milk at regular intervals. Fragments of ice to be held in the mouth.

84, A.M.—Pulse 100; respiration 28; temperature of axilla, 106°-5°.

8 o'clock, P.M.—Condition unchanged. Jaundice, capillary congestion, nausea and restlessness increasing; urinary excretion scanty; pulse 98; respiration 26; temperature of axilla 104°. Urine contains albumen and casts. Treatment.—Continue ice-bag to epigastrium; ice-water enema; and sodium sulpho-carbolate, twenty grains every three hours.

October 18th, at 4 o'clock, A.M., the patient commenced to throw up black vomit, and continued to do so at short intervals, quite freely, until 84, A.M. The sulpho-carbolate of sodium appears to have exerted some beneficial influence, as the black vomit is of a brighter color than usual, and contains coagula of blood.

8 o'clock, A.M.—Pulse 82; respiration 28; temperature of axilla 102:1°; gums red; tip and edges of tongue very red; centre and body of tongue coated with yellow and brownish-yellow fur; blood oozes from tongue and gums. A small quantity of urine, about half fluidounce, has been drawn off by the catheter, which was found to be highly albuminous. Patient delirious and very restless. A stout, strong man was directed to sit by his bed, and to keep him quiet and prevent him from getting out of bed.

R. Sodii sulpho-carbolatis, 5ij.; divide into six powders; one powder every three hours. Inject ice-cold water, at intervals of four hours, into the rectum, until the kidneys act freely; apply ice-bag to epigastrium; apply sinapism to back of neck and lumbar region. Administer, at regular intervals, alternately, small quantities of brandy largely diluted with water charged with carboxylic acid, and iced milk.

The brandy and carboxylic-acid water appeared to increase the nausea and vomiting, and were accordingly discontinued; the sodium sulpho-carbolate, on the other hand, appeared to quiet the stomach, and, during the course of the day, the black vomit ceased, and the patient enjoyed several hours of refreshing sleep. These results appeared also to be due to the local application of ice to the epigastrium, and the injections of iced water not only controlled the nausea and excited the kidneys to action, but also reduced the high temperature.
6 o'clock, P.M.—Pulse 80; respiration 24; temperature of axilla 102°; patient in much the same condition, but not so restless; the injections of ice-cold water were followed by a pretty free excretion of high-colored and albuminous urine. Black vomit has ceased, but nausea still continues.

October 19th.—Condition of patient still alarming; great congestion of capillaries; the face presents a deep mottled purplish appearance; hemorrhage from tongue and gums. No return of black vomit. Kidneys excreting urine more freely. Pulse 94; respiration 24; temperature of axilla 100°.

Continue sodium sulpho-carbonate, 20 grains every 3 hours.

7 o'clock, P.M.—Patient improving; intellect clear; capillary congestion less; jaundice not so marked; pulse 76; respiration 20; temperature of axilla 100-5°. Continue sulpho-carbolate of sodium. Up to the present time, the nourishment of the patient has been confined chiefly to iced milk.

Oct. 20th, 8 o'clock, A.M.—Pulse 68; respiration 18; temperature of axilla 99-5°. Patient decidedly better; no nausea; urine excreted in sufficient amount; capillary congestion and jaundice disappearing.

Continue sulpho-carbolate of sodium, 20 grains every 4 hours; iced milk in small quantity, and brandy diluted with carbonic acid water, at regular intervals.

October 23d, 8 A.M.—Cheerful; sitting up in bed; bright expression of eyes and countenance; complexion clear; complains of nothing but hunger; Pulse 62; respiration 20; temperature of axilla 98-9°.

The restoration to complete health in this case was rapid and continuous.

The relations of the pulse, respiration and temperature, will be illustrated by the following table:—

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Careful records of the cases of yellow fever, treated in my wards in the Charity Hospital, were prepared, but it would extend this letter to too great length to report them in detail, and that given will serve the double purpose to illustrate the nature of the epidemic of 1873, and at the same time to exhibit the main features of my method of treatment.

I regard the ice-water injections and the careful regulation of the diet, and the preservation strictly of the recumbent position, as fully of as great importance as the administration of the sulpho-carbolate of sodium.

The sulpho-carbolate of sodium does not irritate the stomach and bowels in yellow fever, and does not damage the nervous system.

Much will be gained in the treatment of yellow fever, if it were possible to convince the medical profession of the importance of abandoning all useless and heroic medication.

Whilst 200 deaths have been officially reported in 368 cases of yellow fever, in my hospital practice, if those patients be excluded which were brought into my wards in articulo mortis, the mortality has amounted to not more than 5 per cent., or one death in 20 cases. Respectfully,

JOSEPH JONES, M.D.
The inquest in the case of Mrs. Homan, who died at Lynn under anesthesia, is not concluded as we write, so we reserve the whole case for our next number.

Liquid Nourishment for Sick Stomach.—The Dublin Medical Journal commends the following: An egg well beaten up, to which add one pint of good milk, one pint of cold water, and salt to make it palatable; let it then be boiled, and when cold any quantity of it may be taken. If it turns into curds and whey it is useless.

Chloroform in Dentistry.—At the late meeting of the Society, the following resolution was almost unanimously adopted:—

"Resolved, That, in the opinion of the Massachusetts Dental Society, the use of chloroform in dental operations is inadvisable."

Number of Physicians to Population.—Prussia has one physician for every 3,290 inhabitants, Austria one in every 4,355, Hungary one in 5,492, while Russia has but one for 14,166 people. In the United States, according to the census of 1870, there is one "doctor" to about 600 of population! Enough, one would think, to justify their being placed under some uniform national regulation.—Med. and Sur. Reporter.

Development of Bacteria.—Dr. Oslez (of Canada) claims to have witnessed, under the microscope, the actual development of bacteria from small masses of agglutinated corpuscles. To observe this phenomenon, the blood is mixed with a weak solution (three-fourths per cent.) of common salt, and maintained at the temperature of the body.

Professor Hyrtl, of Vienna, in a recent lecture, announced his intention to close his career as a teacher at the end of the present semester.

The lecturer stated that during an anatomical career of now forty years, the days were sacred to him when, at the beginning of each season, he used to enter the lecture-room, meeting an assembly of young men full of desire for knowledge, to receive the master's first greetings and welcome, and to be introduced into the beautiful dominion of science, which has been to him a true partner through life.—Med. Times and Gazette.

Excessive Mortality from Measles.—During the week ending Saturday, November 22, 130 deaths from measles were registered in London, the highest mortality from this disease which has ever been returned since the beginning of 1840, when the weekly returns of deaths were first published; 121 of these 130 deaths occurred in children under five years of age, whilst the death of only one adult was due to the disease.—Brit. Med. Jour.

Impure Water.—Mr. J. M. Merrick has recently examined a specimen of water taken from a well in this city, which had not been used for fifteen years, and found in every gallon inorganic matter to the amount of 1290 grains, and 200 grains of organic and volatile matter. The well is in a low situation, with a perfect network of drains and sewers around and above it, and the soil has evidently become saturated since the well was last used.—American Chemist.

Styptic Collodion.—The following will be found a most useful formula:—

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tannin</td>
<td>2 ozs.</td>
</tr>
<tr>
<td>Alcohol</td>
<td>4 ozs., fl.</td>
</tr>
<tr>
<td>Ether</td>
<td>12 ozs., fl.</td>
</tr>
<tr>
<td>Soluble cotton</td>
<td>1 drachm and 2 scruples;</td>
</tr>
<tr>
<td>Canada balsam</td>
<td>1 drachm.</td>
</tr>
</tbody>
</table>

Dissolve the tannin in one part of the alcohol, and ether with the Canada balsam; then add the cotton.—Dublin Medical Press and Circular.
MEDICAL AND SURGICAL JOURNAL.

EXTRAORDINARY PRECOCITY.—Dr. A. R. Kilpatrick, of Navasota, reports (Med. and Surg. Reporter) that a negro girl in that county has given birth to a fully developed female child, at the early age of about eleven and one-half years.

A CENTENARIAN.—Robert Sexbury died on Oct. 23d, in the town of Lenry, Jefferion county, New York, aged one hundred and ten years and seven months. He had acquired great reputation as a hunter on John Bowen's tract, in northern New York, where he had killed over 2200 deer. When past eighty years of age, he met with an accident which necessitated the amputation of one of his legs, and he assisted a country doctor to perform the operation without flinching. His funeral was attended by several of his children, aged between eighty and ninety years.—Med. and Surg. Reporter.

SUDDEN DEATH OF A SPIRIT MEDIUM.—On Sunday evening, a person named Benjamin Hawkes, having a great local reputation as a medium, was addressing a meeting of spiritualists and others at the Athenæum Rooms, Birmingham. After holding forth for about half an hour, during which time he became visibly excited, he proceeded to describe how, during the séance, the Apostle Peter had appeared to him, he (the medium) having felt the grasp of his hand. From this he argued that it was quite possible to understand how St. Thomas was enabled to thrust his hand into our Saviour's side. We are told by telegraph that the instant these last words were out of his mouth he fell back a corpse. His hearers imagined for a moment that he was under spirit control, but a surgeon being present, pronounced life to be extinct, and the meeting broke up in wild confusion. Of course, the awfulness of the death is the theme of general remark, and as the man was in excellent health, the popular idea of its cause will be readily inferred by our readers. A coroner's inquest is to be held upon the body.—Medical Press and Circular.

NOTES AND QUERIES.

Can anyone give information to the physicians of Boston as to what source they shall look for the payment of their fees when they are called to police stations to dress wounds or attend the sick there, or when called on by the police to attend cases either at their office or at some neighboring drug store? One authority says only the City Physician will be paid by the city. Can some one tell us the right of it?

And another question. When physicians are summoned to court to testify in regard to dressing wounds and the like, how much of a witness fee are they entitled to? Have physicians got to spend a large number of hours in court and receive only a simple witness fee? Answers will be earnestly expected.

MORTALITY IN MASSACHUSETTS.—Deaths in fifteen Cities and Towns for the week ending December 6, 1873.

Boston, 133—Charlestown, 18—Worcester, 16—Lowell, 12—Chelsea, 8—Salem, 6—Lawrence, 10—Springfield, 9—Lynn, 11—Fitchburg, 2—Newburyport, 2—Somerville, 10—Fall River, 23—Holyoke, 2—Pittsfield, 7. Total, 276.


GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Dec. 13th, 1873. Males, 78; females, 74. Accidental, 5—apoplexy, 4—aneurism, 2—disease of the bladder, 1—disease of the bowels, 1—bronchitis, 5—congestion of the brain, 1—disease of the brain, 5—cancer, 3—consumption, 27—convulsions, 5—degeneration, 6—dropsy, 2—dropsy of the brain, 4—destitution, 1—diphtheria, 1—erysipelas, 2—scarlet fever, 12—typhoid fever, 1—disease of the heart, 4—bronchitis, 1—insanity, 1—disease of the knee-joint, 1—disease of the kidneys, 3—disease of the liver, 4—congestion of the lungs, 2—inflammation of the lungs, 13—marasmus, 5—old age, 2—paralysis, 2—premature birth, 6—peritonitis, 1—pernicious diseases, 2—rheumatism, 1—scalded, 1—disease of the spine, 1—suicide, 2—tumor, 2—whooping cough, 1—unknown, 4.

Under 5 years of age, 50—between 5 and 20 years, 11—between 20 and 40 years, 42—between 40 and 60 years, 21—over 60 years, 25. Born in the United States, 90—Ireland, 42—other places, 12.
THE
BOSTON MEDICAL AND SURGICAL JOURNAL.


Original Communications.

CASES ILLUSTRATING THE USE OF THE PNEUMATIC ASPIRATOR IN SURGERY.

By Charles D. Homans, M.D., Boston.

The advantage of the use of the aspirator, in enabling surgeons to make a diagnosis in cases where the existence of fluid is doubtful, seems to be pretty generally recognized, but practitioners do not appear to realize that this instrument is of great value in surgery in the treatment of many other affections. It has been used for the removal of pus and synovia from joints, for the emptying of chronic abscesses, in cases of chronic hydrocephalus, of retention of urine, of strangulated hernia, and to relieve the pain of distention in cases of great flatulence. In all these cases, some, of necessity, mortal, the relief to pain is very great, while, as a rule, the punctures made by the aspirator needles have been followed by no serious consequences; in fact, in most cases at post-mortem examinations, but little if any trace of their passage could be found.

This instrument was used many times during the past season in my service at the City Hospital, and the following are some of the most striking of the cases:

Case I.—Strangulated Hernia. April 20th. P. B., laborer, aged 54 years, had had oblique inguinal hernia on the right side for the past ten years; he has always worn a truss till within a week before entrance; three days ago, after exertion, the hernia came down, and has remained down since, notwithstanding efforts at reduction were made by himself and two physicians. Constitutional disturbance not great. The hernial mass was about the size of a hen's egg, and very tender. The patient was etherized, and taxis tried for half an hour without success; a fine aspirator needle was then thrust into the tumor, and from three to four drachms of fluid, containing bubbles of air, drawn out. Taxis was then again resorted to, and the hernia immediately returned. No unfavorable symptoms supervened, and the patient was discharged, well, the eighth day after the operation.

Case II.—Strangulated Hernia. May 26th. B. R., seaman, aged 27 years, entered the hospital with a large inguinal hernia on the right side, which had been down for several hours, and which he had
vainly tried to reduce himself. He had been ruptured more than seven years, and had usually worn a truss of his own manufacture. Four years ago, he was operated on by a distinguished surgeon of London, by Wood’s method, for the radical cure of the hernia, but the operation, at first apparently successful, was followed by a recurrence of the rupture after seven or eight months. Since then, it has frequently come down, but he has always been able to return it without the aid of a physician. Now there is a large hernial tumor in the right groin, very painful and tender. It is quite firm to the touch, and the skin over it shows the scars of the operation in London. There was some acceleration of the pulse, and the countenance was anxious. The patient was etherized, and attempts were made to reduce the hernia by the taxis, by position, and in every way that could be suggested, but without success. The tumor was punctured with the fine needle of the aspirator three successive times, but no fluid or gas passed out. The ordinary operation for strangulated hernia was then resorted to, and the tumor found to consist wholly of intestine, very tightly compressed, which may, perhaps, explain why no fluid or air came after the punctures. The patient did perfectly well, and was discharged three weeks after the operation.

Case III.—Retention of Urine from Stricture. A man, aged 37 years, entered the hospital with his bladder distended with urine, none having been passed for thirty hours. Many attempts had been made to pass an instrument through the urethra, but without success. There was a stricture four inches from the meatus, and blood followed the attempt to pass the catheter. The fine needle of the pneumatic aspirator was passed into the bladder behind the pubes and three pints of urine were drawn off. The bladder was punctured again the next day, after which the urine came naturally.

Case IV.—A man, aged 28 years, was brought to the hospital, having fallen astride a plank ten hours before, and having been unable to empty his bladder since. He was suffering greatly from distention, and the aspirator was immediately used, as in Case III, forty ounces of urine, slightly tinged with blood, being drawn off. It was afterwards necessary to perform perineal section, and the man eventually recovered.

Dr. Wm. Ingalls also used the aspirator in a case of retention of urine from stricture with similar good results, and it was used many times for emptying abscesses, exploring tumors, &c. Its use in one of the cases of strangulated hernia was, apparently, of the greatest service, while in the other case no harm was done, though three punctures were made. In the cases of retention of urine, the advantage of this manner of relieving suffering is certainly very striking over the old way of tapping through the rectum. The needle is more easily introduced if a very slight puncture is first made through the skin.
**LOCAL ANÆSTHESIA OF THE LARYNX.**

By F. A. Harris, M.D. Harv.

Though one sometimes meets with patients who, at the first examination, bear not only the introduction of the laryngeal mirror perfectly well, but, also, the introduction of the sound, or the porte caustique, still, in the great majority of cases, this latter point is only reached after a tedious course of drillings, lasting from a few days to several weeks; and even more time may be consumed without the sensibility of the larynx being sufficiently diminished to allow of an operation.

The time and patience of both practitioner and patient are thus severely taxed, and, general anaesthesia being out of the question, since a certain amount of assistance must be rendered by the patient, a safe and reliable means of producing a local insensibility of the larynx is very much to be desired.

Prof. Türeß, of Vienna, claims to have been the first to attempt to overcome the obstacles which lie in the way of a speedy operation.

He made use of a solution consisting of—

\[ \begin{align*}
\text{R.} & \quad \text{Morphiæ acetatis, gr. iii.;} \\
\text{Alcohol,} & \quad 5 j. \\
\text{Chloroformi,} & \quad 3 ss. \\
\text{M.} & 
\end{align*} \]

This he applied with the ordinary laryngeal brush, or by means of his so-called "sponge syringe," which was simply a sponge fastened to the nozzle of a small syringe, the nozzle being of suitable length and curvature to be introduced into the larynx. With this solution he was tolerably successful, failing of anaesthesia only twice.

Then he tried a solution of acetate of morphia in distilled water. The strength varied from 3 to 12 grains to the drachm, and to the more concentrated solutions a little acetic acid was added. The application was made with the laryngeal pencil, but the weaker solutions produced no anaesthesia, and the stronger only an insufficient degree.

Then a solution of twenty grains to the drachm was tried in three cases, and one of forty grains in one case, and only a slight degree of anaesthesia was produced in any case after a single application; but the application, repeated four times, produced intense anaesthesia of the larynx.

In three other cases, three applications of a solution of one part to three produced complete insensibility.

In all these cases, the interval between the individual pencillings was from five to fifteen minutes. In cases where the interval was longer, the anaesthesia was slight.

Two applications of the latter solution, in four other cases, produced full local insensibility, while in a fifth case it was insufficient.

The degree of anaesthesia in the cases mentioned varied. Only seldom was it impossible to introduce the sound, and in many cases,
touching in any part of the larynx produced neither coughing nor contraction of the larynx; in short, no reflex action whatever. Türek noticed that the degree of insensibility increased gradually from the first, so that while, at first, it was hardly possible to begin an operation, at last, the loss of sensitiveness allowed operations of considerable length to be performed. The most intense anaesthesia was attained two or two and a half hours from the last pencilling, and the duration was from a few hours to a day and a half, and once even as long as seventy-two hours.

The effects produced in the larynx by the use of the morphine and water solution were cough, slight pain (probably caused by the acetic acid) partial hyperæmia and swelling and slight ecchymoses on the vocal cords and inferior section of the larynx.

He states the number of pencillings to have varied from two to six, though in some of his reported cases he goes as high as thirteen. The quantity of fluid used at a single pencilling was about ten minims, so that four pencillings would require ten grains of morphia; so, allowing for a little waste in introduction, there would be two grains introduced at each pencilling.

Later, although he had pretty much attained his object, as far as producing an insensibility of the larynx, he made further experiments, to see if he could avoid the general narcotism which followed his operations and to avoid so much local irritation of the parts.

He pencilled twice with clear chloroform, and then followed, a few minutes later, with a weak solution of morphine, 1:20. In the first two cases, where the interval between the chloroform and morphia was only eight minutes, the anaesthesia was slight. In one, where the interval was two hours, one pencilling with morphine produced no local effect, while in the last case an interval of two hours, followed by two pencillings within five minutes, gave an intense anaesthesia. The action of the chloroform seems to be, since it alone will not produce anaesthesia, to destroy the epithelium and to promote the absorption of the morpheine, as if given endermically.

Now, considering the large amount of morphia used, the results in regard to general narcotism are interesting.

In all the cases but two, there were general symptoms, and they generally made their appearance early, the local effects being manifested later.

There was always dizziness, staggering, feeling of intoxication, some headache and muscular weakness, and, later, in many cases, nausea and vomiting. Severer symptoms followed the use of the 1:3 solution four times. The dizziness and staggering compelled the patients to lie down; tremblings, formication in the extremities, drowsiness, contracted pupils, with more or less diminished sensibility of the iris. In one case, blackness of vision, roaring in the ears. In three cases, also, retention of urine, pulse reduced in strength and frequency, sometimes profuse perspiration.
ANÆSTHESIA OF THE LARYNX.

Consciousness, however, was not impaired, nor was there sopor in any case. The general symptoms appeared from fifteen minutes to two hours after the last pencilling, the severer symptoms, however, not coming on till later.

The general narcotism lasted from six hours to two days. The relative duration of the narcotism and the local insensibility showed that the former made its appearance first, and the local effect lasted generally from seven to forty-eight hours after the severer general symptoms.

Dr. Schrötter has made use of the latter method, slightly modified, quite extensively, and in the Jahresbericht for 1870 reported several cases of interest:

CASE I.—Mrs. G., æt. 27; tumor below the vocal cords, which Dr. S. had been unable to remove by pencilling with the iodine-glycerine solution, and, since the patient was too sensitive to allow an operation, he determined on local anaesthesia, produced in the following manner:

May 5th, at 7 o'clock, P.M., pencilled twelve times with clear chloroform; at 8, P.M., twelve pencellings of a solution of six grains acetate of morphia to the drachm of water, the patient being cautioned not to swallow, and to gargle thoroughly with

R. Acidi tannici,
Spts. Vini recti, ää 5 j.
Aqua, vi. M.

On the following morning, still being sensitive, the pencillings were repeated in the same way, at 7.30 and 9.30, and at 11.30 the local anaesthesia was complete, and the tumor was scarified and cauterized.

On May 31st, the second operation was undertaken. On the previous evening, at 6.30, chloroform pencilling; at 7.30, pencilling with morphine, and the next morning, at 7.30 and 10.30, the same repeated. At noon, there was not time enough for the operation, so at 3.30 patient was again pencilled, and at 5.30 the anaesthesia was complete.

CASE II.—Epithelioma. Pencilling on the previous evening; in the morning, local anaesthesia, with pretty marked general narcosis.

CASE III.—Epithelioma. One pencelling previous evening; two in the morning, complete anaesthesia.

CASE IV.—Fibrous Tumor. Pencilling in the same way. Complete anaesthesia.

CASE V.—Sarcoma of Trachea. Dec. 21st, evening, pencilling with chloroform and morphia. At 8, A.M., and 10, A.M., repeated, so that in all about 18 grains of morphia was used. Narcosis of larynx complete; but, owing to the pencilling with chloroform, an extensive edema prevented the success of the operation. Dec. 29th, three pencellings with chloroform and six with morphia, at 7 and 8, P.M., respectively. 30th, at 7.30, six morphine pencellings. Complete anaesthesia. This patient was operated on several times, and,
at all the subsequent operations, the anaesthesia (which was not very intense) was produced by pencilling with morphine alone six times.

The results of these cases show that a complete anaesthesia of the larynx can be produced, and, despite the large amount of morphia used, without danger to the patient.

The most successful method is that of pencilling with chloroform one hour previous to the pencilling with morphine, which latter should be done two hours before the operation is attempted.

The amount of morphia used by both Türeck and Schrötter is about the same, namely, nine to ten grains, either in concentrated solution applied a few times, or a more dilute one, more frequently used.

Dr. Schrötter said, however, in his lectures last winter, that, while he had never had any dangerous consequences from this application, it behooved every man to use the greatest care, and to have the patients constantly under the eye till all risk of fatal narcosis was past.

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**Spasmodic Contractions of the Neck of the Bladder Relieved by Cystotomy.**—Dr. Parona, of Novara, reports at length two cases in which cystotomy was successfully practised for the relief of spasm of the bladder. The first case was that of a man whose genito-urinary apparatus had been the source of uninterrupted suffering for a period of eight years, the symptoms being acute pain in the vicinity of the gland and a frequent desire to urinate, all efforts at expulsion being, however, futile. The administration of quinine with narcotics, bromide of potash, atropine, the application of counter-irritants and electricity, and the injection of phenic acid were attended by no favorable result. The neck of the bladder was, therefore, divided by the aid of Mercier's prostatic incisor, and in the course of twenty-five days a complete cure was effected.

In the second case, the symptoms were similar to those of the first, being the sequence of a neglected gonorrhoea. The pain was so severe as to give the patient no rest night or day. As in the first case, there was no evidence of hemorrhoids, calculus, or prostatic tumor. The treatment consisted in the injection into the bladder of phenic acid, tannin and laudanum, and nitrate of silver, all of which afforded but temporary relief, and a like result attended the exhibition of bromide of potash, inunctions of belladonna, as well as the hypodermic injections of morphine and atropine. Forced dilatation of the neck of the bladder was next resorted to, but this only aggravated the trouble. After three months had been wasted in this inefficient treatment, it was determined to divide the muscles which seemed to be the seat of the contractions. The perineal section was, therefore, performed (median operation), and the result was still more favorable than in the former case, for at the end of twelve days no trace of the former symptoms remained.

Parona concludes by observing that equally satisfactory results have attended this operation when it has been performed with the view of extracting a calculus, but where no calculus could be found, after the bladder had been entered.—*Le Mouvement Médical; Rivista clinica di Bologna*, 1873.

This is a series of lectures delivered by the author before the Royal College of Surgeons during the years 1865–66, with additions bringing them down to the present time. Lecture I. is devoted to the anatomy of the foot. In Lecture II., we find an interesting account of that disease of which we hear so little in this country, namely, perforating ulcer of the foot, or the mal perforans of French writers. As described by the latter, it consists of an ulcer situated usually on or near the ball of the great toe, with thickened edges which possess extreme insensibility. It commences in a corn, which is followed by the formation of an ulcer, assuming gradually the characteristics above described. The disease penetrates to the bone or joint, which eventually is found also to be affected. The cases described by the author present some differences from the above picture. The patients were generally affected in several parts of the foot at the same time, although the bones attacked were chiefly the phalanges and the heads of the metatarsal bones. There was considerable swelling and thickening of the soft parts, in which existed several sinuses. The characteristic ulcer is not always described as being present, however, and the insensibility of its edges is not alluded to. There was, in all cases, an offensive sweating of the foot. Frequently, both feet were attacked. Other parts of the body, as the hands, are described as being affected by the disease. It is considered to be of constitutional origin, and in many cases several of a family were the victims of the disease. It is also thought to be hereditary. The author lays stress upon the fact that the disease invariably commences in the region of the anterior extremities of the metatarsal bones and their joints with the toes, and that its tendency is to confine itself to that region, while there is complete immunity of the region of the heel. If, therefore, after removing the diseased bone and soft parts, the disease returns, it is advised to remove the whole of the metatarsal bones, by either Chopart's, Syme's or Pirogoff's amputation. An account is appended of a disease known in India as tubercular disease of the foot, and supposed to be identical with the perforating ulcer. There is, however, much greater alteration in the soft parts and more extensive disease of the bones. (The Centralblatt for Nov. 1 gives a case of M. Verneuil's, where the ulcer was situated on the left calf; amputation was performed, and the disease returned in the stump, with severe neuralgic pains. The resection of the peroneal and tibialis anticus nerves was then tried, but with what success was not stated.)

In regard to amputations of the foot, Mr. Hancock's conservative tendencies are shown in the following suggestions as to operations upon the foot.
"(a.) That we should perform our operations as close to the diseased or damaged structure, and preserve as much of the foot as possible with safety to our patient.

"(b.) That, when practicable, we should cut through the tarsal bones with a saw in preference to disarticulating them.

"(c.) That we should avoid the destruction of joints whenever we can do so.

"(d.) That disease of one articulating surface does not of necessity demand the removal of the entire bone; as, for instance, when confined to the tarso-metatarsal joints, or to the joints between the cuneiform and scaphoid, it is not always necessary to remove the whole of the cuneiform bones on the one hand, or of the entire scaphoid bone on the other. In such cases, however, the diseased portion should be removed by a clean cut made with a saw, and not be bruised off by a gouge or chisel.

"(e.) That, whilst the openings in the skin cannot be relied upon as indicating the exact situation of the bone mischief, the existence of these openings, even if there be several, or the thickening and discoloration of the skin and soft parts, do not of themselves contra-indicate operative procedure, since, as is pointed out by Sir W. Fergusson, the soft parts, when relieved of the source of irritation, will speedily return to their natural condition."

He strongly condemns the practice of sacrificing any bone or joint of the foot for no other reason than that a particular operation, as, for instance, Chopart's, should be performed.

The author reviews, at length, Syme's amputation at the ankle-joint, and defends it against the numerous objections which have been raised. The results of this operation, he says, are most favorable in England, Pirogoff's operation is also favorably noticed. In comparing the two operations, he remarks:—"As regards the occurrence of suppuration, the percentage of deaths, of secondary amputations, of recoveries and periods of recovery, the evidence of British surgery is in favor of Syme's operation; whilst as respects sloughing of the flap, it is decidedly in favor of Pirogoff's proceeding. Syme's operation appears to me to be unquestionably the best for disease, and Pirogoff's for accidents of civil life, since by it we preserve an increased length of limb."

Ligneroll's, or the subastragaloid amputation, possesses an advantage over both the above in preserving the ankle-joint intact, while the natural heel structure is equally obtained. There is a disadvantage, however, resulting from the tendo Achillis forming fresh attachments, and pulling up the astragalus behind, by which the head of the bone is forced downwards, so that the patient, in walking, may rest on this prominence instead of the broad under surface of the bone. This may be prevented by removing the head of the astragalus at the time of the operation. This operation can, in certain cases, be substituted with advantage for Syme's or Pirogoff's. In case disease of the tarsus does not extend to the astragalus, while only the anterior portion of the os calcis is affected, Mr. Hancock has devised a modification of the subastragaloid, which consists in leaving the posterior third of the os calcis and turning it up under the astragalus. This he has tried in one case, and with successful result.

Mr. Hancock claims to have been the first to introduce excision of
the ankle-joint into the arena of British surgery. This operation he considers a valuable one, and infinitely preferable to amputation for disease of the ankle-joint, and expresses regret that it is not more frequently performed. He makes a semi-lunar incision, extending across the front of the joint to behind the malleoli on either side. This enables the surgeon to saw through the bones without injury to tendons or arteries, and to see clearly what he is doing. He does not speak of the advantages of saving the periosteum of the tibia and fibula, as done in Langenbeck's cases, where considerable portions of these bones were reproduced. The cut surfaces of the tibia, fibula and astragalus are placed in apposition, while in Langenbeck's method a space is left for the reproduction of bone, the normal length of the limb being thereby maintained. The author objects to Chopart's amputation, on account of the sacrifice of the scaphoid bone, the support of the head of the astragalus being thus destroyed. He therefore recommends that this bone be allowed to remain, and that the cuboid be sawed through on a level with the most prominent portion of the scaphoid. It is of advantage to save even a portion of the scaphoid. The resulting stump is excellent, the patient being able to walk, not only on level ground, but up ladders without difficulty.

Excision of a portion or the whole of the os calcis is recommended for disease of that bone, and cases are given to show that this is not an operation attended with as grave results as has been supposed, and that the resulting foot is a useful one.


Dr. Taylor, in this work, describes a new hip-splint, which appears to possess several advantages over those now in common use.

The article is handsomely and clearly illustrated by numerous drawings, which represent satisfactorily the few important points in the treatment of this disease, which he desires to impress upon his readers. The text is little more than a description of the illustrations, together with a brief exposition of the theory on which the treatment is based. The first chapter contains a reference to a large number of cases observed in the "New York Orthopaedic Dispensary and Hospital." Statistics drawn from these cases bring him to the conclusion that, so far as regards the mechanical treatment, disease of the hip-joint may be regarded as essentially traumatic. This broad statement, he says, is strongly confirmed by the fact that the disease, when occurring in a clearly strumous constitution, runs a characteristically more variable and less benign course. Owing to its peculiar character, and the support which it receives on all sides by powerful muscles, the hip-joint is little liable to those slight and passing injuries which we meet with in other joints. But when direct force is applied to it by a vertical blow, or by a lateral force by which the head of the bone is driven directly in upon the socket, without the modifying influence of muscular action, a strong impact is made, which is liable to produce injury. The chief cause which prevents a diseased movement from terminating by resolution is the pressure exerted upon the joint by the muscular rigidity made necessary to diminish the immediate pain and injury of motion. Moreover, every movement and the weight sustained are transmitted directly to the
joint, because of the rigid and inelastic condition of the muscles. If we add motion to a diseased and compressed joint, we cannot wonder, he says, at the destructive course disease of the hip-joint ordinarily runs.

There exist, then, two prime indications for mechanical treatment:

1st. To relieve pressure in the joint, due to muscular contraction, by temporarily destroying the muscular irritability and contractility.

2d. To protect the joint from weight and concussion.

The indication for arresting motion in the joint, which is well met by stiff bandages, pertains only to a condition of rigid muscular contraction, but no such necessity exists after all muscular rigidity has been overcome. The use of extension by weight and pulley is not approved of by Dr. Taylor, on account of the necessary confinement and the hygienic disadvantages connected with this form of treatment. It is, moreover, capable of overcoming the action of but one set of muscles, the flexors. There exist no means of regulating the direction of the force, or to antagonize any set of muscles which may be more especially implicated in the injurious contractions. Sayre's splint, also, is not only open to this objection, but, being applied above the knee, permits motion of the knee-joint, a disadvantage, in the opinion of the author, as it necessarily diminishes motion at the hip-joint, which is useful after complete relaxation of the muscles has been obtained. The addition of the thigh, nearly always present, brings a strain upon the knee, resulting, often, in relaxation of the internal lateral ligaments and genu valgum.

It is important, indeed absolutely necessary, to overcome all muscular action and to remove all pressure upon the joint. One must not be content to stretch the muscles, simply; they must be stretched till they yield.

The instrument which, in the author's opinion, answers these indications consists of a hollow rod of steel, reaching from the ankle to the hip, with a foot-piece working in the lower end, and capable of being lengthened or shortened.

The upper end is attached to a pelvic band, made of steel, strong enough to support the weight of the body without yielding. To this band are attached two perineal straps. A hinge joint permits flexion and extension of the thigh on the pelvis, the knee, however, being kept immovable. A screw is so arranged as to force the shaft of the instrument and the opposite side of the pelvis farther apart, in case it is necessary to abduct the leg. Before applying the apparatus, the limb is encased in adhesive strips, which reach to the ankle on either side. The ends are made strong by putting several thicknesses together and attaching a buckle. A bandage being applied over this, the instrument is adjusted while the leg is retained in its abnormal position, the patient lying down. The buckles are then attached to straps going under the foot-piece and extension is made. There should always be an interval of about an inch between the sole of the foot and the bottom of the instrument. If there is much flexion, the limb should be kept in an inclined plane, and the distortion treated by gradually letting down the inclined plane, care being taken not to bring force to bear upon the spine. If much adduction, extension of the shaft will pull upon the opposite perineal strap and tilt the pelvis. This can be also corrected by the screw alluded to above. A few days
suffice to stretch the contracted muscles, and the patient can then walk about. When in the upright position, the patient practically sits upon his perineal straps. There being an interval between the foot and the ground, no pressure, whatever, is brought to bear upon the hip. After all pain and tenderness have ceased, and there is no longer a disposition of the muscles to contract, and there is free motion of the joint, the instrument should be abandoned and an ingenious contrivance substituted, which can be worn underneath the clothes, for the purpose of protecting the joint until the cure is complete.

The writer concludes his treatise with a few clinical remarks. In regard to abscesses, he says: "In incipient cases, promptly and carefully treated, they are unknown. In later cases, the presence of a recent abscess, if promptly evacuated, does not necessarily prevent a complete restoration of the joint. No abscess should be allowed to remain unopened a single day after its existence is discovered. . . . If an abscess is evacuated before it has exerted injurious pressure from accumulation, it seldom discharges more than a few weeks. The retaining an abscess is apt to cause necrosis of the bone with which it lies in contact, and the new disease thus set up is often much more serious than the original one in the joint."

Imperforate Anus.

At a recent meeting of the Paris Surgical Society, M. Verneuil called attention to the excision of the coccyx as a means of facilitating the performance of the operation for imperforate anus. Ten years since, an infant was brought to him with the anus in a state of natural conformation, but having an imperforation at the distance of about a centimetre. As the end of the gut could not be found, Littre's operation was performed. At the autopsy, it was observed that an excision of the coccyx would have enabled the rectal ampulla to be readily reached. Since then, M. Verneuil has performed such excision in the cases of five boys and one girl, with the result of saving five of them without resorting to Littre's operation.

The mere puncture of the ampulla he regards as dangerous, and only to be attempted as a means of diagnosis. Even when not indispensable, the excision much facilitates the operation and abridges its duration; it also facilitates the suture of the intestine to the skin, thus preventing infiltration of faecal matters and consecutive stricture. When the cul-de-sac of the rectum is placed very high, and is but slightly movable, it is to be feared that traction may lacerate its fragile parietes; but, after excision of the coccyx, depression of the rectum is less necessary, for it can then be carried more backwards and fixed to the skin. This M. Verneuil did in three of his cases, and the anus thus carried back performed its function very well at a later period.

There is no incontinence of faecal matter, there being rather a tendency to coarctation, which may be overcome by the daily introduction of the little finger. There are cases of imperforate anus, however, in which this excision is not required, and the portion removed is usually very small.

Pathological Anatomy of Hydrocele.

A communication on this subject, to the Société de Chirurgie, by M. Lannelongue, is given in the Gazette Hebdomadaire, Aug. 15, 1873.
In simple hydrocele of the tunica vaginalis, the relations of the epididymis to the testis are changed; the epididymis is separated from the gland, is placed above it, and elongates and spreads itself out on the surface of the tumor. When an effusion takes place into the tunica vaginalis, its two layers remain no longer in contact. The cavity enlarges at the expense of the parietal layer, which is stretched in all its parts. The testicle remains immovable, while the epididymis becomes more movable and floats in the cavity of the tunica. If the effusion increases, the epididymis is still further removed from the testis, and its shape is considerably modified. The middle part of the epididymis is more and more drawn to the parietal layer, while its head and extremity are in contact with the testicle. M. Lannelongue made these observations on five hydroceles of the size of a fist, in patients over forty-five years of age; he has dissected, in all, eighteen hydroceles. In none of these five cases were there spermatozoa, either in the seminal vesicles or in the epididymis, although the testicles appeared healthy. He quotes other observers who have noticed this absence of spermatozoa. M. Liégeois published four observations taken from living subjects. In two cases of double hydrocele, there were no spermatozoa in the spermatic fluid. Another had an epididymitis on one side and a hydrocele on the other; an examination showed five to twenty spermatozoa in the place of one hundred and fifty to two hundred. M. Roubaud reports the case of an individual who had two hydroceles with no spermatozoa; after puncture, the spermatozoa reappeared. When the fluid collected again, the spermatozoa disappeared from the seminal fluid.

Hydroceles of small volume do not bring about complete suppression of the spermatozoa; but these corpuscles are altered in the seminal ducts. M. Duplay noticed this fact twenty years ago. Some of the spermatozoa were without a head, in others the tail was wanting. It is evidently a retrograde metamorphosis. M. Lannelongue does not think that this disturbance of function is due to an induration of the epididymis described by M. Panas as accompanying hydrocele. There is no such induration, but the fibrous envelope of the tail of the epididymis can be found to be considerably thickened after the hydrocele has been tapped. He recommends prompt treatment of the disease, to prevent these alterations from taking place.

Diagnosis of Stone.

Dr. Henry H. Head, physician to the Adelaide Hospital, reports a case, in the Irish Hospital Gazette, July 15, 1873, in which auscultation was employed as an aid to diagnosis of stone in the bladder. He says:—"I sounded his bladder, and was pretty sure I detected a stone, but did not think the evidence absolutely conclusive, when it occurred to me to try auscultation, to see if it would assist my diagnosis. I accordingly applied one end of an India-rudder tube to the top of the catheter with which I was examining him, and the other to my ear, and at once heard, with greatest distinctness, the instrument strike the stone." He afterwards performed many experiments with substances of various sizes and degrees of hardness, placed in a bladder distended with water, and found the sense of hearing to be more delicate than the sense of touch. "Even a small piece of chalk, not larger than a pea, could be most easily detected; the slightest touch
of the catheter or sound being conveyed to the ear, when it could not be recognized by the hand." The stethoscope "consists of a small vulcanized India-rubber tube, about eighteen or twenty-four inches long; to one end of which an ivory ear-piece is attached, similar to that used for ear-trumpets; and into the other end is inserted a metallic plug, with a tapering end protruding, which should be pressed tightly into the canal of the catheter; or, if a solid sound is used, the end of the tube, without the plug, may be fastened to it."

**TREATMENT OF SHORTENED LIMBS.**

Prof. Francesco Rizzoli, of Bologna, reports* a method for treating the lameness produced by a shortening of one inferior extremity, practised by him four times successfully, which consists in producing an artificial fracture of the healthy femur and allowing it to heal with a corresponding amount of shortening. The case reported was that of a girl, thirteen years old, who had considerable shortening from hip disease of the left side, the tip of her great toe scarcely touching the ground. The right femur was fractured by means of an "osteoclast," and the lower and upper fragments were pushed by one another sufficiently to make the two limbs of equal length. On the twentieth day, the patient was walking about. The author mentions deformities of the pelvis which arise from shortening of one leg, and quotes a series of cases, giving the measurements. A number of illustrations are also given.

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**WANKLYN ON THE ANALYSIS OF TEA.**—Mr. Wanklyn, in a recent number of the *Chemical News*, records some results of interesting experiments in the analysis of tea. He thinks there is no doubt that tea is sometimes adulterated with iron-fillings and other preparations of iron, but he wishes to call the attention of public analysts to the importance of investigating the ash of samples of tea, for he points out that, as tea-ash contains naturally 4 per cent. of oxide of iron, it is manifest that the mere qualitative detection of oxide of iron is no valid proof of adulteration. Zöller found the ash of tea-leaves to be 5.63 per cent. in pure tea, about which there could be no doubt; Mr. Wanklyn finds a very similar result—an average of 5.92 per cent. with ordinary commercial tea, absolutely dry. The method of investigation is very simple. "I am in the habit," he says, "of employing about two grammes of the dried leaves for the experiment. These I burn in a small platinum dish, and, when the resulting ash has become grey, I allow the dish to become cool, and weigh it together with its contents. The ash is then heated to boiling with a little water, and the solution filtered, and the filtrate evaporated to dryness in a small platinum dish; the resulting residue is then ignited, cooled and weighed. Thus I get determinations of 'total ash,' and 'soluble ash;' the 'insoluble ash' is found by difference." Treated in this manner, the ash of Paraguay tea is the only ash capable of being mistaken for the ash of tea; the total percentage of itself excludes all others. As an incidental circumstance, Mr. Wanklyn has been led to notice the great fragrance of a decoction of beech-leaves, and its possible use as a beverage.—*British Medical Journal*.

* Schmidt's Jahrbücher, 1873, No. 5.

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Bibliographical Notices.

Transactions of the New Hampshire Medical Society for the Year 1872.


The only papers which possess other than local interest contained in the former of these Transactions, are the annual address and the annual oration. The address was delivered by the President, J. H. Hall, M.D., of Portsmouth, who undertakes, in rather a rambling way, to give some of the reasons why the medical profession does not receive from the public that favor and consideration which it merits, affirming that the profession suffers from the mala praxis of a certain class of precocious amateur physicians, who, having embraced that fashionable specialty, uterine disease, are inclined, in many instances, to subject their patients to the outrage of a needles examination. He denounces, therefore, quite bitterly, those physicians "who go about with a sable satchel under their arm, filled with speculums, sounds, tents, &c., hunting for an opportunity to make examinations per vaginam and explorations per speculum."

No better criticism could be made upon these loose reflections upon gynecologists than that contained in the oration of Dr. J. W. Parsons, which followed the address. His subject, by a strange coincidence, was "The Necessity of recognizing Uterine Disease," and he adduces very strong proof that pelvic diseases are of very common occurrence with females, giving rise to a great variety of sympathetic symptoms and reflex disturbances, simulating, in many instances, organic and functional disease of remote organs. Dr. Parsons deems it the imperative duty of the honest physician to understand clearly the pathology and treatment of the female organs of generation. To ignore this class of affections, as is too often done by those whose limited educational advantages have not rendered them familiar with this specialty, will only tend to prolong the sufferings of many patients; and, when the ignorance or neglect of the physician is at length exposed, it cannot fail to redound to the injury of the delinquent attendant.

The Transactions of the California Society embrace a period of two years, and include no less than fourteen papers, in addition to the address of the President. In this address, the retiring President passes in review some of the more important questions which affect the medical profession at the present time, and touches upon the relations of medical men to irregular practitioners. In prosecutions for malpractice, he holds that the plaintiff should be obliged by law to give security for the payment of costs, in case he should fail to sustain his charges.

Dr. Gibbons manifested but little sympathy with the very general desire for reform in the constitution of the American Medical Association, believing that this Society, as at present constituted, does represent perfectly the rank and file of the profession. It is exactly suited to the tastes and habits of Americans, he says, and has much more influence over them than would be exerted by a body less democratic. He fails to appreciate the importance of a high standard of education,
and ridicules the idea of sending our young men to Europe for study. So far from sympathizing with the attempt now being made at the Harvard school, and elsewhere, to elevate the standard of education, he follows in the wake of Dr. Yandell, and proposes to make even more easy the path to the doctorate. It is refreshing to turn from these pernicious views to the able paper of Dr. Edward R. Taylor, of San Francisco, entitled, "Some Thoughts on Medical Education," in which the importance of educational thoroughness is strongly urged. A low standard, he says, detracts from the dignity of the profession, offers a premium on mediocrity, and tends to quench the fires of honorable ambition. If, on the other hand, the standard is placed high, some will assuredly reach it, others will come within a short distance, while all will have accomplished a distance of which they would have fallen far short, had the educational requirements been less.


The handsome volume before us is a translation of a new edition of Cheveau's well-known work. It is precisely what is needed, not only by veterinary surgeons, for whom it is especially written, but by comparative anatomists and physiologists. The author, taking the horse as his text, describes the different structures with the care and minuteness which is found in good textbooks on human anatomy, stopping frequently to compare the parts with those of other domesticated animals, and, finally, with those of man. The style is very good; the author has, we think, hit the proper degree of accuracy of description, midway between the extremes of pedantic minuteness and of crudity. The animals considered are the dog, cat, pig, ox, sheep, goat, horse, ass, and the hybrids of the last two. The translator has omitted the remarks on the camel and rabbit, which is well in the case of the former, but hardly of the latter, as knowledge of its anatomy is useful to experimenters. We wish that the sections devoted to transcendental anatomy had been suppressed, for a book of this kind should be practical, and this one is so in every other respect. It provokes us to see the old archetype skeleton, now so shaky on its rusted wires, set up in the midst of a collection of valuable facts as something to be admired. This offends us, but it does not detract from the value of the book, for these passages may be easily skipped. The translation is very good, and the illustrations and binding admirable.

BOOKS AND PAMPHLETS RECEIVED.


The inquest at Lynn, in the case of Mrs Homan, is at last over, and the jury has rendered the following verdict:—

"That the said Elizabeth M. Homan came to her death at her residence, 7 Pleasant Street, Lynn, on the fourth day of December, 1873, between the hours of four and five o'clock, P. M., from the combined effect of sulphuric ether and nervous exhaustion, while undergoing a trilling surgical operation; and the jury further find that the etherization and operation were properly done, and that prompt, energetic and all necessary measures were employed to resuscitate the patient."

Instead of following the long and tedious account of the case, as elicited by the evidence, we will endeavor to state it briefly.

In the course of November, Dr. Bixby, of Boston, was called in consultation by Dr Graves, of Lynn, to see the deceased, who was suffering from some obscure pelvic trouble. On November 25th, Dr. Bixby, by means of the aspirator, detected and emptied a pelvic abscess. It filled up again rapidly, and, on December 4th, Dr. Bixby considered another operation essential to the safety of the patient, who was apparently in a very poor condition. Mrs. Homan was very unwilling to take ether, but tacitly consented to the persuasions of the physicians. Dr. Graves gave the ether, and Dr. Bixby attended solely to the operation. He punctured the abscess with a trocar through the vagina. Over a pint of pus had escaped, and more was flowing, when the patient was found to be dead. Here the evidence is somewhat conflicting: Dr. Bixby thinks he was the first to perceive that the patient was perfectly motionless, while Dr. Graves states that some five minutes after the discontinuance of the ether he noticed that the patient gasped, upon which he pulled the tongue forward, that she then gasped once or twice more, and expired; that he then notified Dr. Bixby. Every effort at resuscitation was made, and apparently well made, but artificial respiration and the battery were alike useless. After rather more than half an hour, they left the house and went for the Coroner. An irregular practitioner was then called in, who testified, as did also some of the naturally excited relations, that the pulse was still beating. We pass over this evidence without comment. Dr. Pinkham, the Coroner, who was the next to arrive, thought that life was extinct. The ether was examined by Dr. Wood, and found pure. The autopsy showed dermoid cysts in each ovary, chronic inflammation of the bladder, and enlargement of the uterus; between these two organs was the cavity of the abscess. The heart was weak, but not diseased.
We shall not discuss the Coroner's verdict, for which the medical community can hardly be considered responsible; although we might, perhaps, ask whether, in a case of extreme nervous exhaustion, with cystitis, the evacuation of more than a pint of pus from an inflamed abscess near the fundus of the uterus, can be considered "a trivial surgical operation." We pass directly to the main questions at issue.

This case suggests two questions: 1st. Did anaesthesia contribute to death? 2d. Was the anaesthetic employed better or worse than any other? To the first question, we reply that anaesthesia undoubtedly contributed to death—it often does. It is a depressing influence of great power, and in an operation of this kind a full dose is requisite to relax the muscles of the pelvis and thighs. Such a dose, in the case of a feeble patient, often demands great vigilance. Without intending any objectionable criticism, we think it fair to say that were the operation to do over again, the result might be more favorable. How often do we see weak patients barely carried through operations under anaesthesia by the combined skill of many experienced assistants? We here leave this part of the subject, distinctly recognizing that anaesthesia was, in this case, one of the causes of death; an occurrence familiar to all.

To the second question we reply as distinctly that in our belief ether was the best anaesthetic that could have been used. Had chloroform been employed, the patient would have had, not only the same chance of dying from the depressing influence of anaesthesia, but, also, the additional chance of sudden death from that peculiar and toxic property of chloroform by which it is possible for twenty drops, even when skilfully administered, to suddenly kill a strong and healthy man. This danger was avoided by the use of ether, which owes to the absence of this property its superiority to chloroform.

The approach of winter and of the holidays calls to mind the sports which are prominent features of the season. We are strong believers in recreation, especially in the open air, and if boys' games be rough, they are none the worse for it, provided they bring no great danger to the players or passers by. On the other hand, every citizen has the right to traverse the great thoroughfares without danger to life or limb, and, in support of this right, we protest against the extent to which coasting is permitted on the Common. No one who has seen the, at certain times, almost unbroken succession of sleds, rushing down the long, steep paths, will forget the spectacle. There is a fascination in watching the constant changes of the scene; to note the varieties of sleds, the toy-like one of the small boy, lately escaped.
from the nursery, the sharp and substantial "clipper" of the typical school-boy, and the great "double runner," carrying, with terrible velocity, its freight of five or six nearly or quite grown men. But there is a less pleasing picture, that of old men and young children, timid women and invalids, waiting to cross the track. The wise well know that the slightest error in estimating the opportunity, the slightest slip on the ice-covered ground involves serious harm, if not loss of life itself. The ignorant and stupid rush blindly on their fate, and appear as "items" among the accidents in the next morning's paper.

It may be said that this is out of our province; but if it be our duty to warn the public of impending epidemics, why not of accidents, as well? We will, also, suggest the remedy. The Common is large enough for all, but let coasting be permitted only in places where the sleds will not cross any important line of travel. The injury to the coasters will be more than balanced by the security of the passers, who have, at least, equal rights. We have, however, little hope of reform for the present. It was not till eighty millions had been lost by a single fire that the city seriously undertook to suppress the indiscriminate burning of gun-powder on the Fourth of July, and as, in this case, the loss is only of lives, we suppose we must resign ourselves to it. We may, however, petition the municipal government to establish one or more ambulances on the Common for the reception of those "butchered to make a schoolboy's holiday."

COUNTERFEIT DIPLOMAS.—The establishment on Pine street, Philadelphia, where medical degrees, regular and honorary, are conferred at so much a head, has been several times sharply overhauled, but has continued prosperous in spite of its overhauling. The greater the discredit into which the "American University of Philadelphia" has fallen at home, the greater the energy with which its business has been pushed at a distance, and the more lucrative its returns have been.

It must be allowed that there is a large element in human nature that likes to be humbugged; otherwise such frail securities as El Paso railroad bonds and Emma mining stocks would never have had a successful run in foreign exchanges, where nothing authentic was known about them, and from the nature of the case it was impossible that anything could be known. Upon this same credulity and conceit, manifested in a different way, the shrewd Yankee operators in university titles have played successfully, and they have found the market lucrative enough to pay for great risks at home. There is a good prospect now that this particular kind of swindling will be brought to an end. Responsible charges have at last been filed, and the "American University" will be called to answer upon what warrant its proceedings are based. The charges come, this time, from Germany, where the sale of bogus titles has been vigorously carried on through resident agents. The chief agency was in charge of "Dr.
P. F. A. Vander Vyver, LL.D.," Jersey, England, to whom all persons who wished to be promoted to any degree by this university, without being personally present, were to send their applications, and $120 in money—being the total cost of the diploma.

This eminent doctor of laws advertised extensively in German and other European papers, setting forth the facility of getting degrees in this way, without the usual inconvenience of previous study, or even of a journey to America and back again. Here and there gentlemen of moderately good standing among scholars, have been tempted by Dr. Vander Vyver's prospectuses to bid for these paper titles, and have worn them with great complacency, till the swindle was fully explained to them. The authorities of Philadelphia, in company with the officers of the University of Pennsylvania, with which the bogus university has been confounded, are now at work, with the evidence of its deception in their hands, to bring its officers to justice, or, failing in that, at least to put a stop to their business.—*Boston Daily Advertiser.*

**Belladonna Plasters in Vomiting.**—The *Medical Times and Gazette*, Oct. 11, 1873, states that, at a recent meeting of the Paris Therapeutical Society, Dr. Gueneau de Mussy read a communication on the good effects of belladonna plaster in the symptom of vomiting, whatever the nature of this may be. Bretonneau strongly recommended belladonna in the obstinate vomiting of pregnancy. He prescribed frictions of the extract diluted with water, which was rubbed into the epigastrium during several minutes two or three times a day. In many instances, this treatment relieved the vomiting when all other means had failed. For more than twenty-five years, Dr. Gueneau de Mussy has extended Bretonneau's treatment to all descriptions of vomiting, whatever the cause may be; but he has found that a plaster is a better excipient of the extract, allowing of its continuous application being conveniently made. It consists of a diachylon plaster and theriac plaster, of each two parts, and extract of belladonna one part, the plaster being twelve centimetres in diameter. It may remain applied to the epigastrium twelve or fifteen days without being removed. It has succeeded in a very great number of cases, either in entirely relieving vomiting or greatly mitigating it. Dr. G. de Mussy entertains great hopes of the benefit to be derived in the use of the belladonna plaster as a prophylactic and curative in sea-sickness.

**Cholera Dejections and Vomit,** in the Dresden Hospital, are received in a mixture of sawdust and charcoal, upon which petroleum is then poured, and the mass burned.

**The Hospitals.**

**MASSACHUSETTS GENERAL HOSPITAL.**

*(Saturday, December 13, 1873.)*

Operations were performed in the four following cases by Dr. Cabot:—Abscess of Gluteal Region, Contracted Knees, Tumor of Back, Cancer of
Cheek. In addition, an Abscess, a Fistula Ani and a Necrosis, which do not require comment.

Abscess.—Ten years ago, the patient noticed, after riding, a small, painful spot midway between the ischial tuberosity and the great trochanter of the right side. The tenderness subsided, but a small lump remained, which, eighteen months ago, again became painful, and has remained so to the present time. It was laid open freely. The quantity of pus was small, and it was enclosed in sponge-like cavities. The diseased tissue, on section, resembled that of a carbuncle.

Contracted Knees—congenital, in a child six years old. The joint had been manipulated, but no continued extension had been employed. Under ether, one leg was completely, the other partially extended, and splints applied. Dr. C. remarked that the condition of the joints was not due to tendinous contraction.

Tumor of Back—in a woman, without apparent cause, and of a year's duration. It was situated just below the inferior angle of the scapula, closely adherent to the fascia overlying the ribs, and also to the skin which was slightly ulcerated. It occupied an area two by three inches, and projected slightly from the surface. The growth was encircled by two semi-lunar incisions and dissected out. It involved the thickness of the latissimus dorsi muscle, and was, under the microscope, chiefly inflammatory infiltration.

Cancer of Cheek—in a man. It projected inward from the mucous membrane, in front of the ascending ramus of the inferior maxilla. The cheek was transfixed at a point opposite the last molar tooth, and an incision made extending to the commissure of the lips. The flap was reflected upward, so as to expose the growth, which was then excised. It proved to be epithelial in character, and was of the size of a walnut.

BOSTON CITY HOSPITAL.

Last Friday, December 19th, the operations were as follows:—

Enucleation of the Eye was performed by Dr. Cheever, in the case of a man injured, six days before, by the accidental discharge of a bowling-piece. The patient received the full force of the explosion in his face, the muzzle of the gun being near his head. The shot were of the smallest size; none of them were found beneath the skin of the face, although fragments of powder had penetrated. A single shot had, however, entered the cornea, leaving a symmetrical wound of entrance, plainly visible. The removal of the injured organ was advised, to anticipate the appearance of consecutive trouble, both in this eye, and, sympathetic, in the other eye. The eyeball was found, on removal, to be much disorganized, the vitreous being the seat of an effusion of blood. The shot was not found; an opening in the sclerotic, posteriorly, showed that the wound was a penetrating one.

Dr. Williams operated for Extraction of Senile Cataract, the patient being a woman, 65 years old. The cataract was of the nuclear variety, and was of the kind commonly called “black,” the lens being of a dark amber or mahogany color, which gave the pupil a clear appearance, instead of the usual grey or creamy opacity. Dr. Williams operated by the median flap method, making the incision upward with the narrow knife of Graefe, the wound being confined to the cornea. This method of operation was described by Dr. W. as having certain advantages over the peripheral linear extraction of Graefe, in that the wound was smaller and involved the cornea only, that the pupil was exposed to less violence in the extraction of the lens, and that there was less danger of separation of the retina and of subsequent sympathetic ophthalmia.

Dr. Williams removed from the conjunctiva of a child of five years a small growth of the size of a split pea. It had overlapped the lower and outer portion of the cornea, interfering with vision. Its dissection from the conjunctiva left the cornea perfectly clear.
CORRESPONDENCE.

A case of Compound and Comminuted Fracture of the Patella was presented by Dr. Thorndike, the patient having just been admitted to the hospital. The man, a mechanic, fell from a staging, a distance of thirty feet, striking on a pile of rubbish—stones and broken brick. The patella was comminuted, and at its lower, inner border, a compound opening appeared, through which the finger could be passed into the knee-joint. The ligaments within the joint were ruptured, and the insertions of the vasti muscles were lacerated. The joint was filled with blood. This condition of the knee, in connection with a complete dislocation upward of the scaphoid bone of the tarsus on the same side, determined that amputation of the thigh offered the least risk. To this operation, the patient would not consent. Dr. Thorndike accordingly enlarged the opening into the knee, removed several loose bits of patella, with some of the articular and inter-articular cartilage, and made a counter-opening on the outer side of the joint to allow free drainage. An unsuccessful attempt was made to reduce the dislocated tarsus.

On Tuesday, December 16, Dr. Cheever operated, before the medical class, for Strangulated Hernia. The rupture was oblique inguinal, filling the scrotum on the left side. It had slipped down from under a truss while the patient was at stool, on the previous Friday. Complete stoppage of the bowels and vomiting had continued since. The face was flushed, skin dry, abdomen tympanitic. After a moderate attempt at reduction by taxis, under ether, herniotomy was done. The sac contained a quantity of reddish serum. The hernia was of the large intestine, fringed with a good deal of fat in the appendices. The bowel was in fair condition. The stricture was cut upwards, and reduction was found very difficult. The gut did not contain air, but could not be folded in on itself with the finger. There were no adhesions. After the opening had been several times enlarged with the hernia-knife, the patient was inverted, and the hernia finally returned safely. The lower corner of the wound was left open.

Correspondence.

LETTER FROM MANATEE, FLORIDA.*

MANATEE, MANATEE CO., FLA., Nov. 19, 1873.

DEAR SIR,—I have been handed yours of the 3d inst., addressed to ———, of this place, with a request to answer the interrogatories contained therein, which I take pleasure in doing as satisfactorily as I can.

1st. Give a general description of the climate and topography of Manatee, Florida.

Ans.—The climate is warm and genial. During the summer, the thermometer ranges from 70° to 90° Fahrenheit, scarcely ever going above the latter in favorable places. Yet with whatever degree of heat we are visited in the day, the nights, almost without exception, are cool and invigorating, thus allowing the body to recover from any lassitude it may experience in the day. There is rarely a night during the summer but what at some period of it a blanket is comfortable to the sleeper, in a well ventilated room. During the winter and cold months of the year, the thermometer sometimes sinks low enough to give us a white frost, but very seldom to the freezing point; yet the winters are so mild as to permit the cultivation in open gardens, with little care, of the tenderest vegetables. The average temperature of the year is a little above 70 degrees.

Manatee village is situated on Manatee river, about six miles from its mouth, which empties into Tampa Bay, and about twenty-two miles from the Gulf of Mexico. The river is a beautiful sheet of water, about one mile wide at this place. The general surface of the surrounding country is flat,

* This letter, sent us by an esteemed correspondent, was written at his request by a reliable observer.—Ebs.
though the banks of the river between the village and its mouth vary in
height from five to thirty feet, affording as beautiful sites for private resi-
dences or villas as can be found in the southern country.

2d. Is the climate uniform, dry or moist?

Ans.—It is more uniform than any climate in which I have ever lived, or
of which I am informed, and as dry as any climate could be with the same
proximity to large bodies of salt water, possessing a genial moisture, which
is a defence against, and palliation of pulmonary affections. From the first of
November to the latter part of June, we have what might be called dry or
seasonable weather; much of the weather being of that delicious, balmy
character which is found in sunny Italy or the Grecian Isles, with now and
then a boisterous north wind, prefaced with more or less rain, which lasts
generally from twenty-four to thirty-six hours. From the latter part of June
until October or November, we have what is denominated the rainy season,
varying each year as to its length and the amount of rain that falls. Some sea-
sons these rains are moderate; again, they inundate the country for a few
days by their continuance and intensity. During the later spring and the sum-
mer months, we have a daily prevailing wind from the sea in the day time,
and from the shore at night. The dews are not heavier, I think, than in the
interior States of the Union, nor as heavy as I have seen in Texas, on its coast
or in the interior, while fogs are very light and seldom seen.

3d. Is the climate free from malarial influences? Do chills and the vari-
ous forms of malarial fever prevail at any period of the year?

Ans.—My own experience proves that our coast is freer from malaria than
any section in which I have ever resided, to wit, Ohio, Georgia and Texas,
while medical statistics prove that all types of bilions or intermittent fever
are less severe and less fatal in proportion to the number of population than
in any other State in the Union. There are, during the year, occasional
cases of chills and other bilious fevers, but I think they are more the result
of a disregard of the laws of hygiene than of any climatic influence.

4th. What is the character of the soil, sand or clay? Does water remain
upon the surface after rains?

Ans.—The soil is sandy, emphatically sandy, often lying in strata of differ-
ent colors, from whitish to iron-rust color. Clay is found only in small quanti-
ties, chiefly in the hammock lands, but not in quantities to give character to
the soil. Water rapidly passes away after rains, remaining in depressions
only when prolonged and drenching rains have inundated the land and satu-
rated the soil.

5th. Are there any bodies of stagnant water in the neighborhood?

Ans.—The country is more or less dotted with stagnant ponds, some open,
some filled with long grass, and others with a dense growth of bay, oak, wa-
ter-bush, maple, ash, &c., and in their natural state furnishing a pure, soft,
wholesome water, free from malarial exhalations and parasitic growths.

6th. What is the character of the drinking water? Is it free from lime and
organic impurities?

Ans.—In the pine barrens, inexhaustible supplies of pure, soft water are
found from five to eight feet from the surface of the ground, and, under fa-
vorable circumstances, wholesome and free from organic impurities. The
water from the wells dug in the rich hammock lands, whose understratum is
composed of various marls, is necessarily strongly impregnated with lime
and is intensely unwholesome.

7th. What is the growth of the country—long-leaf pine?

Ans.—The general or principal growth of the country is long-leaf (yel-
low) pine and short-leaf (pitch) pine. The hammocks, which are exceptional,
and not characteristic, are covered with red and white bay, ash, hickory, live
oak, water oak, paw-paw, maple, elm, dogwood, magnolia, persimmon, wild
peach, cabbage, palmetto, and other growths.

8th. What is the effect of the climate upon the lungs? Do patients suffer-
ing with phthisis pulmonalis improve in this climate?

Ans.—This section is visited, more or less, in the winter, by invalids suffer-
ing with pulmonary affections, and with good results by those who conduct
themselves prudently, and who are capable or susceptible of improvement. We have a pure, soft, exhilarating air, ameliorative to the lungs. This statement is corroborated by the United States medical and census statistics. The census of 1860 shows that the proportion of deaths by consumption in the following States to have been—in Massachusetts, 1 in 254; Maine, 1 in 289; Vermont, 1 in 404; New York, 1 in 473; Pennsylvania, 1 in 380; Ohio, 1 in 878; Florida, 1 in 1,447. In this connection, it must be remembered that Florida has been the sanitarium of the Union, and that a majority of those dying with consumption in Florida are invalids in quest of health.

9th. What are the prevailing diseases?

Ans.—We claim a decided exemption from prevailing diseases. During the later fall and summer months, we have a few scattering cases of chills and bilious or intermittent fever, but forms of a typhus of severe type, or congestions of all characters, are of very rare occurrence.

10th. Please send any records of climate.

Ans.—There are many meteorological data taken here, and at other points of the State, both north and south of this place, as well as other valuable information about the State, found in pamphlets issued from the office of the Commissioner of Lands and Immigration, at Tallahassee. Some of the foregoing data come from one of the same. I endeavored, without avail, to obtain an extra copy to send you, but will write by next mail to Tallahassee, requesting copies of the two last issues to be mailed to you. The point "Pinney Bluff," mentioned in your letter, is about fifty miles south of this place. The main land there comes abruptly upon the Gulf of Mexico, while the general features of the surrounding country, though somewhat elevated, are much the same with the rest of the Peninsula, with the same sandy soil, pure water, and growth of long-leaf and pitch pine.

I have endeavored to give you, in the foregoing answers, a true account of the climate and general health and topography of the country, as applicable to good locations in this section, and do not hesitate to say that such places can be selected as possess as great merit for health in a pure, wholesome air and wholesome water as can be found in the world. I came here a youth, in 1852, have since travelled from Connecticut to California, have resided in Texas, Ohio and Georgia, and nowhere have I enjoyed so good health or such exemption from bilious complaints as here, and, until last year, never had an hour's bilious fever engendered here.

This western coast has not received that attention from invalids and others in search of health and warm climates, as the eastern; yet I think, and it is the opinion of many having a knowledge of both, that it is superior, and only requires convenient routes and means of travel, with comfortable hotels, to develop the proof. It only requires a judicious system of railroads, bisecting and ramifying the peninsula, with a proper encouragement to immigration, to open and insure the development of one of the finest regions in the world, possessing no superior in the salubrity of its climate, no equal in the extent and variety of the productions of its genial and rich soil.

Respectfully yours,

W. A. G.

TREATMENT OF ULCERS.

MESSRS. EDITORS,—Dr. White, in his valuable "Report on Dermatology," published in the JOURNAL for Dec. 11th (page 583), mentions a "new method for healing ulcers," employed by Dr. Nussbaum, the principle of which is so nearly identical with that embodied in the following quotations as to make Dr. Nussbaum's claim to originality in its employment doubtful, to say the least.

"Relieve the tension of the skin or other tissues, by making incisions at right angles with the line of tension." (Gay: London Lancet, June 18, 1853, p. 468.)

"Besides the above-mentioned circumstances, there is still another that impedes the healing of ulcers with greatly-indurated borders, that is that the
healing, granulating surface and cicatrix do not diminish and thicken by contraction, because the firmness of the surrounding portion of skin permits no displacement; while, as you know, all granulating wounds decrease to about half their size by contraction, and hence the cicatrizing surface grows smaller, in many cases the granulating surface of these ulcers must cicatrize throughout its entire original extent, because it cannot contract. To render this contraction possible, deep incisions have been made through the skin around the ulcer, and these incisions have been kept open by the introduction of charpie. I have never seen any great benefit from this treatment. As a consequence of the rigidity, also, the new cicatrix is not sufficiently dense, and readily reopens, so that the ulcer once healed soon develops again. To guard against this, it is best to cover the cicatrix with wadding and apply a starch bandage. This dressing should be worn six or eight weeks, till the cicatrix is firm and well organized. I have followed this practice for a long time in all cases of ulcer of the leg, and have every reason to be satisfied with it.” (Billroth: Surgical Pathology, Am. Trans., 1871, pp. 390 and 400.)

“In the worst cases, where all these means fail” (opium, pressure, blistering, &c.), “it is commonly because the base of the ulcer and the integuments surrounding it are so indurated and so adherent to the subjacent tissues that they will neither stretch nor slide towards the centre of the ulcer, even when healthy granulations form on it and would contract in developing into a scar. To remedy this hindrance of healing, it is sometimes useful to make incisions through the integuments, near and parallel to the margins of the ulcer, so that the gaping of the incisions may give opportunity for the contraction of the granulations on the ulcer.” (Paget on Ulcers. Holmes’s Surgery, 1871, vol. i. pp. 383 and 384.)

Boston, Dec. 12, 1873.

H. H. A. BEACH.

Unusual Behavior of the Heart during Etherization.

Messrs Editors,—I do not know as you wish to hear anything further in connection with the subject of ether, but the following case, which came under my observation during the past week, presents some features which were of interest to me, and which, in an experience as House Surgeon in the Massachusetts General Hospital and in the cases of anesthesia which it has been my fortune to see since that time, I have never noticed with the distinctness which this case presented.

A. R., 80 years old, resident of a country town near Boston, was operated on at the Eye and Ear Infirmary, in May, 1873, for cataract. Ether was administered and the operation performed without the slightest unusual incident. He went home, has since been well, and returned to the Infirmary last week to submit himself to the same operation on the other eye. As is my habit, when giving ether, I noticed the patient’s pulse, and discerned nothing abnormal. This was at the moment when I commenced to etherize him, before he had inhaled the anaesthetic at all. After a few inspirations, I thought one pulsation of the temporal artery had not been present, but the pulse was again regular, and quite full, and I supposed I must have been deceived, when a second intermission followed. At this, I did not stop the etherization, but gave great attention to the pulse. In less than two minutes from this time the pulse was intermitting every fifth and sixth beat, the respiration being perfectly normal. The patient was still able to converse coherently and answer questions properly. I asked to have the surgeon called, at the same time removing the towel somewhat from the face, so that the etherization should remain in statu quo. The admission of air was followed by complete restoration of the pulse in less than a minute and a half, so that on the appearance of the surgeon no failure in its regularity was to be detected. At his request I renewed the etherization, with precisely the same effect on the pulse until it intermitted at every fourth or fifth beat, when I became somewhat anxious and removed the ether from his face. In about two minutes, the pulse was again perfectly normal, not losing a pulsation in 40 to 80 beats.
A consultation was then held by the surgeons present, and it was decided to again attempt the etherization. Precisely the same effects, in the same order, were observed by several of the Faculty of the Infirmary, and this continued until the removal of the anesthetic from the face, when the pulse again became full and regular. During this whole process, the patient had not become unconscious, nor unable to answer questions properly, and declared that he felt perfectly comfortable. It was decided to attempt the operation without ether, and it was accordingly done. At the time of greatest suffering from pain, it was noticed that there was also a slight intermission in the pulse, but this was of very moderate degree, and may have been caused by the twitching of the patient.

Five days after the operation, as the patient was sitting quietly in his chair, examination of pulse showed one intermission in twenty, twenty-seven and forty-nine beats, respectively. Pulse is sixty in the minute. Appetite is fair, strength good, patient is cheerful and happy.

I make no remarks on this case; in fact, I think it doubtful if it possesses sufficient interest to obtain a place in your columns; but to me the observation of the intermittence of the heart's action in the administration of ether, and the increase and decrease of this symptom in a ratio exactly corresponding to the time the anesthetic was applied, was a thing of the greatest interest. It may not be so uncommon, but to me it is a new experience.

*Boston, Dec. 10, 1873.*

ALBERT N. BLODGETT.

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**Atwood's Quinine Tonic Bitters.**

*Editors,—* I have received letters from several physicians of good repute, asking why my name appeared in print as having recommended a proprietary medicine, bearing the above title. Will you allow me to answer all such inquiries by one general statement.

I was not aware that my name appears in any such connection. If it does, it is without my consent. I know nothing of the article except its name. I never recommended its use.

Yours truly,

CHARLES E. BUCKINGHAM.

*53 Worcester Street, Boston, Dec. 12, 1873.*

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**Obituary.**

**Dr. W. H. Rockwell.**

Dr. ROCKWELL, the subject of this sketch, died on the 30th ult., after an illness and decline of more than eighteen months. He was a native of Connecticut and graduated at Yale College. His pupillage in a specialty commenced at the Hartford Retreat, under Dr. Todd, in the summer of 1827, he having received the first appointment as assistant physician in that Institution. He was associated with Dr. Todd until the death of the latter in 1833, and for several months afterward had charge of the Institution. He subsequently remained connected with the Retreat, the greater portion of the time until his appointment to the Vermont Asylum, although at one time engaging in general practice, and for a few months pursuing a course of theological study. He was appointed to the Superintendency of the Institution at Brattleboro', previous to its opening, in 1836, and was officially identified with it till August, 1872, when he resigned, by reason of disability,—the result of a painful accident three months previously. Under his direction and personal oversight, from its beginning with a donation of $10,000, and subsequent very limited State aid, the institution has attained its present capacity, and accomplished at the same time a work for humanity, creditable in comparison with the results of kindred institutions in other States, as will appear by its published reports.
Dr. Rockwell was for many years the veteran in his specialty, and the oldest superintendent of an asylum for the insane in the United States. For nearly half a century he was an indefatigable worker, and though less prominently identified with popular movements than some of his contemporaries, was no less alive to all measures of reform and in sympathy with progress. He was thoroughly practical, and compelled by circumstances to give personal attention to the details of his daily work. The institution he created (we use this word advisedly) is the monument he has left to attest his industry and to perpetuate his memory. His reports were uniformly brief and confined to the current results of the institution each year; but those who best knew him, especially those who were associated with him from time to time, realized the wealth of professional experience he possessed, and recognized his rare sagacity and practical discrimination.

Decision and force of character, great self-reliance, sound practical judgment and indefatigable activity, were his prominent characteristics; but through these the finer and nicer shades of intellect were ever visible. His points were positive, rather than negative. His religious faith was clear and decided, and by it his whole life was consistently shaped.

A quick and cultivated power of observation, and the constant and diligent study of human nature in all its varied and abnormal phases, rendered him sagacious beyond the average of men, and gave to his judgments a superior value, as was often remarked by his professional acquaintances. With active sympathy, and ready adaptation of means to ends, he at once gained the confidence of his patients, and retained it with singular facility.

In person, he was singularly tall and commanding, and by his presence as well as mental qualities, exacted respect.

It is to be hoped an extended memoir, embracing as far as possible the conclusions of his long experience, will be prepared for the benefit of the profession in the specialty.

Few individuals in any walk of life are privileged to enjoy so extended a period of active service, and few have left behind them more enduring evidence of practical usefulness.

J. D.

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Dr. William F. Perry.

In the sudden death of Dr. Perry, Mansfield and vicinity have suffered an irreparable loss. He was born in Easton, Dec. 9th, 1800, and was the son of Dr. James Perry, a once well-known physician in that town. He studied medicine with Drs. Swan, of Easton, and Peck, of Foxboro', and attended two full courses of lectures at the Bowdoin Medical School, where he received his degree of M.D. in 1833. He subsequently attended one course of lectures at the Harvard Medical School in Cambridge, Mass., and became a member of the Massachusetts Medical Society, and continued such till his death. After practising in his native town two years, he was invited to settle in Mansfield. His first professional visit is dated May 24, 1835.

The first year yielded hardly enough to pay his board, but with his professional devotion and prompt and sympathetic attention to his patients, his skill finally commanded success, and he became a trusted physician, not in Mansfield only, but in all its vicinity, and was sought in consultation far and wide. He was a diligent student of medicine as long as he lived.

He always answered promptly the calls of the poor, and never enforced payment from those who could ill afford it; so that he lived straitened himself, while thousands of dollars due remain uncollected. Some eighteen years ago, in one of his midnight rides, he was thrown from his carriage and received an injury which he thought left the foundation for heart disease, of which disease he suddenly died on Tuesday, Oct. 17th. He was sitting beside a sick child and before he had made the prescription he fell forward on the floor, and without a word or groan he instantly died. His funeral at his residence drew hundreds together to see once more the face which they had often so gladly welcomed as the signal of hope and relief.
Medical Miscellany.

HEADACHE.—Dr. C. C. Vanderbeck recommends the use of ergot in headache; thirty drops of the tincture every half hour, until relief is obtained. He regards it as a very useful remedy, though not a specific.

OVARIAN TUMOR IN A GIRL SIXTEEN YEARS OF AGE.—This case was noticed by Dr. R. M. Cooper. When first observed, the general health of the girl was good, and all the functions in exercise except the catamenia. Three successive tappings afforded but temporary relief, and she died without an operation at the expiration of eighteen months.

DISCHARGE OF ASCARIDES FROM THE URETHRA.—Prof. Dujardin reports the passage of three ascarides from the urethra of a man, 72 years old. The passage of these parasites occupied ten days, and occasioned the patient much suffering. The specimens are preserved in the anatomical museum at Genoa. (La Nuova Liguaria Medica, No. 18, 1873.)

ABSCESS OF THE LIVER OPENING INTO THE ASCENDING CAVA.—This extraordinary lesion is reported by Dr. Leon Colin in L'Union Medicale, Aug. 5, 1873. Secondary purulent deposits had occurred in the lungs, which, causing a copious expectoration of pus, had during life led to the erroneous diagnosis that the abscess had burst into a bronchus.

RHEUMATISM AND GOUT. Dr. E. P. Townsend advocates the use of chloride of propylamin in these affections. The rheumatic cases yield, he says, in from three to twelve days, and the gout in ten. Under this treatment a recurrence of the attack, in inflammatory rheumatism, is rarely met with, and the other sequences are usually avoided, such as valvular disease, or pericarditis.—Transactions of New Jersey Medical Society.

ST. HELENA is recommended as a sanitarium for the Ashantee expedition. The climate of this island is represented as genial, equable and healthy, the temperature rarely exceeding eighty degrees in the shade, even in the valley, in which its one town, Jamestown, is built, while on the higher plains it usually ranges from sixty to seventy degrees. It has been used for many years as a place to which African cruisers are sent once a year to recruit the health of their crews.—British Medical Journal.

ACONITE POISONING.—A lady, aged 35, took by mistake twenty drops of the tincture of aconite root. She discovered her mistake shortly afterward, and, being very much frightened, swallowed a raw egg, and sent for a physician. Dr. D. Mcl. Forman reached her an hour and a half after the poison was taken, and found her with mind perfectly clear, complaining of an intense, burning pain over the stomach, dryness of the throat, stiffness of the tongue, and a tingling sensation over the whole body. Pulse 76 and full; respiration and pupils normal. For the next half hour, there was no change in her condition; but, at the expiration of this time, her pulse suddenly began to beat irregularly, and faintness with coldness of the extremities was experienced. During the next quarter of an hour, the pulse had become so feeble and irregular that it was scarcely perceptible; the surface of the body was cold and livid and the pupils dilated. In spite of stimulants, the pulse continued to grow weaker, until it could not be detected at the wrist, the patient continuing to complain of faintness and cold, and in this condition she remained nearly two hours before the radial pulse could again be detected. About five hours from the time of taking the poison, the physiological effects began to disappear, but the pulse continued feeble for the next two days, and dizziness was complained of whenever the head was raised from the pillow. It is worthy of remark that in this case the only changes in the pulse were irregularity and feebleness, the frequency of the pulse, when it could be felt at all, never falling below the normal standard.—Transactions New Jersey Medical Society.
Hyperidrosis.—Dr. W. G. Smith thus describes (Irish Hosp. Gazette) the immediate outbreak of the preternatural flow of sweat in a case of hyperidrosis. "On examining the skin with a pocket lens, some degree of hyperemia was seen to develope, and this coincided with a sensation of heat and tingling. Presently, minute glistening specks appeared at the mouths of the sweat follicles; gradually, the miniature springs welled up, and, within five minutes, the palm was literally dripping with perspiration, and large drops would fall to the ground when the hand was turned edgewise."

Chloroforming Horses.—Prof. John A. McBride seeks to exonerate veterinary surgeons from the charge of wilful inhumanity to horses in neglecting to employ chloroform when operations are to be performed on them. He states that the chief reason why an anaesthetic is not used in horse-practice is, that while the animals are inhaling the vapor they struggle so violently that they not unfrequently break their backs. He asserts, moreover, that a blind horse is preferable to one who has been operated upon for defective vision. The usefulness of a horse is destroyed by partially restoring his sight, for, owing to his imperfect vision, he becomes addicted to shying, a habit that renders him a dangerous animal.—British Medical Journal.

Hornet Sting.—In addition to the local irritation produced by the stings of bees, hornets and wasps, severe and even fatal results are sometimes known to ensue. In a case observed by Dr. R. M. Cooper, a lady, having accidentally approached a hornet's nest, was stung six times upon the crown of the head, through a sun-bonnet, and four times on the back of the neck. She suffered severely at the time from the stings, and was found by the physician an hour afterward, in a cold, collapsed state, with pulse thread-like and almost imperceptible. Though her condition appeared at first to be a critical one, under the influence of active stimulants she eventually rallied. Upon the following day, an intense itching was experienced over her whole body, which was found to be the seat of an erythematous eruption. This eruption disappeared at the end of thirty-six hours.—Transactions of New Jersey Medical Society.

Married.—On the 18th inst., by the Rev. James Freeman Clark, Dr. Theodore W. Fisher to Ella Gertrude, daughter of Joshua W. Richardson, Esq., all of Boston.

Died.—At Lynn, December 16th, of Bright's disease and pneumonia, Bowman B. Breed, M.D., aged 41 years.

Mortality in Massachusetts.—Deaths in eighteen Cities and Towns for the week ending December 13, 1873.

Boston, 152—Charlestown, 12—Worcester, 21—Lowell, 18—Milford, 1—Chelsea, 7—Cambridge, 10—Salem, 6—Lawrence, 13—Springfield, 9—Lynn, 8—Fitchburg, 2—Newburyport, 7—Somerville, 5—Fall River, 21—Haverhill, 4—Holyoke, 5—Pittsfield. Total, 304.

Prevalent Diseases.—Consumption, 55—scarlet fever, 20—pneumonia, 37—typhoid fever, 13—croup and diphtheria, 8.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

Deaths in Boston for the week ending Saturday, Dec. 20th, 115. Males, 59; females, 56. Accident, 2—abscess, 1—apoplexy, 2—infammation of the bowels, 1—bronchitis, 7—infammation of the brain, 4—congestion of the brain, 1—disease of the brain, 4—cancer, 2—cerebro-spinal meningitis, 3—cholera infantum, 1—consumption, 13—convolusions, 2—debility, 4—diarrhea, 2—dropy, 1—dropsy of the brain, 1—drowned, 1—diphtheria, 2—exhaustion, 1—scarlet fever, 6—typhoid fever, 5—disease of the heart, 10—disease of hip, 1—intra-secession, 1—disease of the kidneys, 1—congestion of the lungs, 1—infammation of the lungs, 14—marasmus, 3—old age, 2—paralysis, 2—pleurisy, 1—premature birth, 5—peritonitis, 1—pneumeral diseases, 2—rheumatism, 1—scalded, 1—suicide, 1—tumor, 1—whooping congh, 1.

Under 5 years of age, 49—between 5 and 20 years, 13—between 20 and 40 years, 22—between 40 and 60 years, 15—over 60 years, 16. Born in the United States, 82—Ireland, 28—other places, 9.