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Original Communications.

THE HISTORY OF GERMS, AND ITS APPLICATION TO MEDICINE AND SURGERY. BY DRS. PASTEUR, JOUBERT, CHAMBERLAND.

BY JOSEPH WORKMAN, M.D., TORONTO.

Concluded.

"We have distinguished the carbuncle bacterium, and the septic vibrio, as agents of contagion, disease, and death, not because they generate chemical poisons, but because the animal economy can afford them the means of culture. We now have to notice a third species, equally capable of multiplying in the living body, and of provoking in it a pathological state, different, as will be seen, from the morbid manifestations which arise from inoculation of the carbuncle bacterium, or of the septic vibrio. Here we have a proof that the pus formed by our organism is allied to the specific character of its structure. The quantity of pus, for example, furnished by the bacterium and the septic vibrio, at the point of inoculation, and outside of it, is so little apparent, that it frequently passes unnoticed.

The microbio of which we now treat, may propagate itself through all the muscles, penetrate into the blood, into the lungs and the liver, and determine in these organs the formation of purulent foci, metastatic abscesses,—in a word, a purulent infection and death. This invasion, however, of the whole body, is much more difficult than that of the carbuncle bacterium, or the septic vibrio. Whilst the inoculation of the most minute quantities of the latter organisms conducts, so to say, infallibly to death, that of our microbio, in similar proportions, is limited to the production of abscesses which cure spontaneously, either because they suppurate and open, or because the pus is resorbed, and the microbio which accompanied it disappears, conquered by that which I would call life, vital resistance, *vis medicatrix*. If, however, the number of abscesses have been increased by that of the inoculations, it frequently happens that the cure of these cannot be effected, and it is then the microbio penetrates through every part, and the muscles become as if impregnated by it.

We may say that this new organism, previously subjected to a temperature of 110 C. (230° F.) and thus entirely deprived of life, yet preserving its form and volume, provokes, when inoculated under the skin—in the same manner as inert solid bodies, abscesses consisting of pus entirely pure, free from smell, and devoid of living organisms. This mode of inoculation does not, however, permit the production of abscesses in the viscera. In these conditions the dead microbio operates only locally; but in the same manner as when inert bodies are injected into the blood, and the formation of metastatic abscesses is provoked, so also, it is easy to obtain such abscesses either by the living, or the dead microbio, by injecting substances containing it into the jugular vein. In this case, the lungs, and especially the liver, become filled in twenty-four hours with an infinite multitude of metastatic abscesses, in all stages of evolution, from the mere inflammatory blotch to the small white pustule, full of pus, surrounded by a yellowish areola. As regards cure, that is the disappearance of the abscesses, matters progress differently in the two sorts of inoculation. The animal inoculated with the living microbio almostalways dies speedily, and any part of the liver or the lung immersed in an inert liquid, reproduces the microbio. If the consequences of the inoculation have not been fatal, the disappearance of the abscesses and of the microbio in the viscera, is more slow than in the cases inoculated with the dead microbio. It may therefore be inferred from the preceding facts, that pus, accompanied by living microscopic beings, whose life is possible in the animal economy, gives place to disorders of greater severity, and more difficult of resolution, than pus, which may be called pure.

We have here an example of a purulent infection localized in the viscera, and provoked by extraneous bodies; or by pus entirely free from living organisms. It is the case of the thorn of Van Helmont. An extraneous body leads to formation

of pus; proper pus has this faculty, and it is thus that we may say metaphorically, pus engenders pus.

If time would permit I might allude to the process of the resorption of metastatic abscesses. The phenomena presented in these minute formations are truly curious, and that which is particularly interesting is to observe the facility with which nature disembarasses herself of purulent foci which cover sometimes in profusion, all the obes of the liver.

There is another point in our studies, on which I would desire to address the Academy; I mean the special formation of pus. We have, however, arrived at conclusions so opposite to those which have currency in medical science, and it is so difficult to form a clear decision in these most delicate investigations, that I reserve it for a subsequent communication. At the present, as regards ourselves, the red globules of the blood become by transformation, pus globules. In the science of observation, however, illusion is rather easy, when it rests on only a limited basis.

I hasten to reach another order of facts, which merit still more than those which precede the attention of the surgeon; I refer to the effects of our microbio as a generator of pus when associated with the septic vibrio. Nothing is easier than the implanting of two distinct diseases, and of producing one which may be called a purulent infectious septicemia, or a purulent septicemia. Whilst the microbio generator of pus when alone, forms an allied pus, white, lightly tinged with yellow, or greenish, in no way putrid, diffused, or involved in what we call a pyogenic membrane, not offering generally any danger, especially when located in cellular tissue, and prepared, as it were for the purpose of prompt resorption, the small abscess, on the contrary, provoked by the microbio associated with the septic vibrio, takes on a gangrenous aspect, and becomes putrid, greenish, and infiltrated in the softened flesh. In this case the microbio generator of pus, carried, so to speak, by the septic vibrio, accompanies it through the whole body, and the highly inflamed muscles, filled with serosity, presenting at many places globules of pus, appear as if crammed with the two organisms. By a similar artifice, the effects of the carbuncle bacterium, and of the pus-generating microbio, may be combined, and we may obtain the superposition of two diseases, that is, a purulent carbuncle, or a carbunculous purulent infection. For the present it is well not to overrate the predominance of the new microbio over the bacterium; if, however the microbio be associated in suitable proportion, it may completely baffle, or impede, the bacterium in multiplying in the body. Carbuncle is not manifested, and the evil, quite local, is reduced to the formation of an abscess, easy of cure The microbio generator of pus, and the septic vibrio, being both anerobious, it will be understood, from the demonstrations in a former portion of this article, that the septic vibrio will not be much incommoded by the connexion. Nutritive aliments, both liquid and solid, will not fail in the organism, for such small beings. But the carbuncle bacterium is exclusively aërobious, (air living) and the proportion of oxygen is far from being scattered in profusion at all points in the body; a thousand circumstances may, therefore, diminish or suppress it, here and there; and as the microbio pus generator can live in air also, it may be understood that from its larger size it may draw from the bacterium alongside, the oxygen needed by it. Whatever may be the explanation of the fact, it is certain that the microbio here treated of, in certain circumstances, impedes the whole developement of the bacteria.

In conclusion we may say that the details which have preceded, show that we can, at will, produce purulent infections exempt from every element of putridity; purulent putrid infections; and carbunculous purulent infections,—various combinations of this species of lesions, according to the proportions of the specific microbios, which have been brought to act upon the living organism. Such are the principal facts I had to communicate to the Academy, in my own name, and in that of my collaborators, Drs. Joubert and Chamberland. The Academy will remember that in the course of the chirurgical discussion, which took place before it, I presented a series of propositions without demonstrating them. All these have now been defined in the lecture which I now close. Some weeks ago (in the session of 11th March,) one of the members of the Academy, Dr. Sedillot declared that our successes, in the new departure in surgery, furnish a rational explanation to the newly inaugurated theory of the celebrated English surgeon, Dr. Lister, one of the first to comprehend its value.

TUBERCULOSIS WITH SIMPLE CHRONIC PERITONITIS.

BY C. W. COVERNTON, M.D., M.R.C.S., TORONTO.

(From Le Progrès Medical.)

Jeanne ———, aged 20, entered, under the care of Dr. Constantin Paul, the Hospital of Saint Antoine for pulmonary tuberculosis. The disease had arrived at the stage of cavities. For four months her courses had ceased, but she had never experienced in any part of the abdomen the slightest pain. The patient had been ill for the period of a year; her strength was rapidly exhausted; the emaciation had become extreme, and cavities were multiplying in the superior half of both lungs. At the end of a month of residence in the hospital, the patient having fallen into a state of profound cachexia, died on the 10th of June. At the autopsy, the lungs were found drilled with numerous cavities surrounded with islets of tubercles more or less confluent. The abdomen presented most interesting lesions, the most remarkable of which are the following:—The peritoneal cavity in its whole extent is partitioned by old adhesions, very solid, laminated, manifestly vascular in a number of places. It is especially about the liver, spleen and the centre of the intestinal convolutions that these peritoneal adhesions are the firmest, leaving even a certain quantity of hepatic parenchyma adherent to these new sub-diaphragmatic membranes. The pelvic cavity is nearly free from adhesions, excepting the surroundings of the ovaries and the free extremities of the Fallopian tubes, which were fixed to the pelvic walls in the neighbourhood of the superior strait. It is important to note here that no tubercle existed in the peritoneum, nor in the new membranes, excepting at one point; in the thickness of the meso-cæcum were found two grey tubercular granulations of the size of the head of a pin. This sound state of the peritoneum from the point of view of existing tuberculosis was all the more curious that we discovered at the same time very advanced tubercular alterations of the uterus and Fallopian tubes. The right Fallopian was thick and hard, but having preserved its form, it retains absolutely in aspect and consistence the appearance of a deferent canal surrounded by diffuse tubercular infiltration. The canal of the Fallopian tube is open as far as the margin of the uterus, and it is noticeable that the mucous membrane appears healthy, but that the walls are transformed into a rigid tube. The tissues that form the canal are in no degree softened. The left tube, on the contrary, offers a very different aspect. It is deformed by two yellowish enlargements, round, smooth, of the size of a hazel nut, evidently fluctuating. On opening the canal, the contents of the two tumors escaped in the form of a very thick yellowish white purulent liquid. Their walls, which were extremely thin were formed in great part by the peritoneum. No peritoneal adhesions existed on a level with the two Fallopian tubes. The uterus was still more changed. On a level with the superior and left angle, at the point of opening of the tube into the uterine body, a large tumor was perceived about the size of a walnut; this tumor covered still by a certain thickness of uterine fibres is round, very smooth and largely fluctuating. This cheesy abscess of the uterus in no way communicates, apparently at least, with the Fallopian tube nor with the uterine cavity. The uterine cavity was extensively affected. The principal portion of the mucous lining membrane has disappeared—destroyed by a grey superficial ulceration on its surface, and terminating on a level with the union of the body with the neck. This ulceration of an unequal depth following the points is covered by a greenish yellow muco-purulent fluid, viscid and very coherent, the microscopical examination of which displays only a great number of leucocyte granules accumulated often in a thick mass, and a few hematites. The neck is round and small, the inferior orifice very small, round, but an erosion superficially roseate, granular, about three millimetres in breadth borders it inferiorly. The vaginal mucous membrane is unaltered; hymen imperforate; ovaries healthy. A few tuberculous granulations were found in the kidneys. The interest of this case lies in the fact that simple chronic peritonitis may exist with advanced tubercular disease. The peritoneum must have been attacked at an early period, perhaps in childhood, with an acute inflammation, the effects of which were noticable. The conclusions are, 1st. That simple chronic peritonitis may exist in a tuberculous patient. 2nd. That in a young virgin tuberculosis may localize itself in the genital organs and produce these extensive disorders unknown to the patient. The amenorrhœa

may persist notwithstanding all the causes of irritation existing at a level with the diseased uterus and its appendages.

PUERPERAL CONVULSIONS TREATED BY VENESECTION AND OLEUM TIGLII.

BY J. B. HOWELL, M.D., JARVIS, ONT.

Not having seen anything in the *Canada Lancet* lately on puerperal convulsions, and at the same time having had several cases this summer, and one recently, I will briefly give the symptoms as I found them in the last case, and the *modus operandi* of treatment adopted.

Mrs. S. æt. 21, above the medium height, stout and well built, primipara, complained of slight headache previous to confinement. I was called to attend her on the night of the 15th of January, 1879, at 8 p.m. I made an examination and found the os dilated to about the size of an American dollar. I made another examination at 9 p.m. and found the os well dilated, and before I made an attempt to examine again a convulsion came on, lasting about five minutes. Then followed profound coma with stertorous breathing. I immediately examined the os again and found that the second stage of labor had fairly commenced. Fearing that another convulsion might soon come on, I immediately delivered with instruments, tied and severed the cord, and partially separated the placenta with the view of encouraging hæmorrhage, but to no purpose. I then removed it. By this time she was breathing better; coma and stertor were disappearing, and in fifteen minutes more she was able to speak; said she felt well, and asked what was the matter. I gave her twenty grains of bromide of potassium. I tested the urine and found it loaded with albumen.

In about an hour and a half from the first fit she became restless and tossed about for a few minutes when another convulsion came on, apparently more severe than the first, but lasting about the same length of time. Consciousness did not return after this fit, and the patient fell into a state of profound coma. The convulsions became more frequent and apparently more severe until 5 a.m. when they were nearly constant. I tried the administration of chloroform during a fit, but as the patient did not breathe freely it was a failure. At this time, 5 a.m., I made an opening in the median basilic vein and extracted ʒxxi.. of blood, after which the convulsions ceased until 2 p.m. when they again returned, and at 3 p.m she had had three more when I arrived. I then immediately bled her again from the other arm, taking double the amount of the first bleeding; gave three drops of croton oil combined with ten grains of calomel, and left a small dose of opium to give after it had operated freely. I also ordered five grains of chlorate of potash in solution every hour until my return.

11th. 2 p.m. Visited patient; she has had no fits since; coma nearly gone; pulse rapid; tongue dry; she was able to converse a little. Continued the chlorate of potash, with chicken broth and milk, hourly.

17th. Visited again; found her a little heavy though easily roused. She talked freely, and said that she remembered nothing that had passed since the night she was taken sick. Continued the chlorate of potash, broth, milk and like articles of food.

19th. Saw patient and found her comparatively well. I prescribed iron and quinine, and left the patient in care of the nurse with instructions to send me word if she did not appear to gain. She is now in her usual health.

Correspondence.

To the Editor of the CANADA LANCET.

SIR:—In the *Lancet* of last month is a communication from Dr. Ling, complaining that in my published paper on "Medical Evidence," I did not mention the fact of his having pronounced Wright insane before his trial at St. Thomas. No names were mentioned by me, for it was not my intention to give a history of the trial, but only my own connection with it. The Dr. did not state to me, nor did he in his evidence, as a witness, that he had discovered in Wright the delusions I had mentioned. Had such been the case, it is not likely a witness for the defence would have been so forgetful or negligent as to have omitted the fact, especially seeing that otherwise his evidence was of such a vague nature, that the Court would not accept as proof of insanity.

His complaint of my not communicating my objections to the defence, is based upon the assump-

tion that medical men are in duty bound to volunteer services where they were not sought for. That may be the Dr.'s mode of procedure, but it is not mine, especially in a case where life and death were not involved. If he knew my opinions why did he not whisper the fact in the ear of the counsel for the defence? I am not responsible for the Dr.'s inferences, which are founded on a "baseless fabric" of imagination.

If, unfortunately, we ever meet on a like occasion, I shall be happy to give Dr. Ling's opinions and evidence that prominence they deserve.

I am, yours truly,

DANIEL CLARK.

Toronto, Jan'y 16, 1879.

Selected Articles.

SOME SURGICAL WRINKLES.

BY JOHN H. PACKARD, M.D.

The first point that I shall discuss is a method of making superficial incisions by which scarring can be avoided. In operations upon exposed parts, such as the face and the hand, it is very desirable that they should be so done as to leave as little scar as possible. The procedure that I have to recommend was first suggested to me by witnessing the effects of an accident, a lady having fallen while carrying a china dish, a piece of which made a long, gaping, incised wound in her hand, the sharp knife-like edge of a fragment having cut through the skin very obliquely. After approximation the wound healed readily, almost without scar. The traces of the injury could scarcely be discovered a few weeks afterwards.

Thinking that this effect was in a great measure due to the direction of the incision through the skin, I tried the experiment in cutting down upon a tumor of the thigh, holding the knife so as to divide the skin obliquely. The wound united perfectly, and after it had healed I actually could not find the line of incision. Since that time I have tested the idea in other cases, with highly satisfactory results. In small, superficial operations, such as the removal of small tumors from the face, it has a cosmetic advantage that at once recommends it without requiring further discussion.

The second "wrinkle" is a suture-needle with the eye near the point, for the purpose of introducing wire sutures. The difficulty in using this material arises principally from the tendency of the wire to "kink" in pulling through the tissues. This is entirely avoided by employing a needle with the eye near the point; the needle being pushed through the lip of the wound, the wire inserted into the eye, and the needle withdrawn. The needle is essentially the same as that known as Baker Brown's, having been devised by that surgeon for the operation of closing ruptures of the perineum. It may be either set in a handle or held in a needle-carrying forceps,—the latter being the most convenient form for the pocket-case.

An extremely small portion of the wire need be passed through the eye to cause it to be held securely while it follows the needle in its withdrawal from the wound. It can be used in drawing together the flaps of large stumps, as well as in the thin lips of a simple incised wound, the only difference being that the thicker the tissue the longer the needle required. These are made by Mr. Gemrig of different sizes so as to accommodate even the thickest of silver or lead wire used for sutures.

The next idea was obtained from a quack, through a patient who had been under his care, and concerns the manner of introducing the ligature for a fistula in ano. Here let me say that in the treatment of this affection I have found the ligature, and especially the elastic ligature, a very satisfactory substitute for the cutting operation,—being equally efficient and much less painful. Every one knows how difficult it sometimes is, after introducing a probe through a fistula, to make it project from the anus, and how painful the procedure is for the patient. In order to obviate this we first introduce the probe in the ordinary way through the fistula and into the interior of the rectum. The silk ligature is then carried into the bowel on the top of the fore-finger, in the cleft under the free extremity of the nail. Having the ligature thus in the rectum, it is easy to slip the probe alongside of the finger, which is then withdrawn, leaving the ligature; the latter is now twisted by its two ends until it grasps firmly the extremity of the probe, so that in withdrawing the probe the ligature is carried through the sinus and may be tied in the ordinary way. This is easier to carry into effect practically than to describe. It is only needful to see that the end of the probe is bulbous enough to prevent the ligature from readily slipping off. Most of those sold are so.

In using the elastic ligature for the treatment of fistula in ano, it usually becomes necessary to tighten it from time to time. It does not tie easily, and the knot is bulky. In order to perform this duty quickly, securely, and without causing unnecessary pain to the patient, I simply cross the two ends and tie an ordinary ligature around them. Either this tying or the subsequent tightening of the ligature can be done without the aid of an assistant, by making two small loops of wire and fastening them to the ends of the ligature. Having the thread between one thumb and forefinger ready to tie around the ligature when it is drawn tight, the little finger of each hand is inserted into the loops o rings of wire, by which any desired traction can be made upon the ligature, while the other fingers of both

hands are free to tie the silk or hempen thread. This I have found a very useful expedient.

Another point of interest and useful in its application is the "dry suture," for closing large wounds, such as are made sometimes, for example, in removal of the breast. It is an old idea, and one with which many of you are doubtless familiar. Two sheets of the most tenacious of all plasters, Seabury & Johnson's porous plaster, two and a half inches wide and of the length of the wound, are required. These perforated strips are placed one on each side of the wound, and parallel with it. Then with an eyed probe the surgeon can lace the two together over the wound, by carrying a silk ligature or a slender lacing across alternately from the second row of perforations in each sheet, so that the wound is drawn together without any tension upon its edges, but by taking a very wide hold on the surrounding skin. It is a very important thing to bring the wound together in this way, especially since it is well known that as the edges swell in the course of a few days there is a tendency to the cutting through of sutures applied in the ordinary method. The same expedient is useful in treating large chronic ulcers of the leg, where it is desired to reduce a wide granulating surface; and a number of other applications will suggest themselves.*

I would further recommend the use of reflected light, by means of the ordinary head-mirror of laryngoscopists, in examining other portions of the body, such as the ear, rectum, or the vagina. It is sometimes difficult to move patients; they are heavy, or are so ill that they cannot be placed in a convenient position for examination; the light may be inconveniently located, or the source of light may be a window that may expose the patient to curious neighbors; in all these cases the reflected light from the head-mirror enables us to obviate the difficulty, and to direct the light as we desire, without needlessly exposing the patient. Moreover, it obviates the necessity of the surgeon dodging the shadow of his own head.

Finally, in regard to the first insensibility from ether, I would say a few words, although some of you are already acquainted with its advantages. It is a matter of very great importance, and I beg all of the members to try it for themselves. For the short operations of minor surgery, and the reduction of dislocations or opening of abscesses, it is extremely useful and of every-day application. Such a patient steps into your office, and you wish to operate without causing him pain or incapacitating him from attending to his business for the remainder of the day. Let him lie down upon the sofa, and take the ether-inhaler, or a sponge wet with ether, in his own hand, directing him to hold the other arm up in the air. After breathing the ether for a few minutes, the arm will drop, and you will have from thirty to fifty seconds of unconsciousness in which to operate. The sponge is removed, and the patient is ready to go about his business. It gives rise to no headache, nausea, or other unpleasant symptom, and is particularly useful in children. The chief source of disappointment is in not recognizing the right moment, for if this is allowed to pass, unconsciousness will not again occur until full etherization. The first insensibility is sure to come. When the arm wavers, be ready, and as soon as it drops perform the operation; there will be no pain felt.—*Medical Times.*

*In recommending the perforated plaster for the closure of wounds I am aware that the dry suture has been used for years. But the tenacity of this plaster, and the convenient perforations, make it particularly applicable to this purpose, and allow of its being done a great deal more easily than it ever has been before.

THE TREATMENT OF ACUTE ARTICULAR RHEUMATISM.

BY ALFRED STILLE, M.D., PHILADELPHIA.

At the outset of this part of my discourse, I desire to lay great stress upon the statement that *the treatment of simple acute articular rheumatism may be abandoned to palliatives and nature.* Apart from complications, such cases nearly always get well under rest and good nursing. Try and disabuse yourselves of the idea that their cure is dependent upon medicines alone; to help nature is often the best we can do. No treatment was ever invented which stopped a case of acute articular rheumatism. It cannot be accomplished by bleeding, or sweating, or purging, by nitre, by tartar emetic, by guaiacum, by alkalies, by salines, by salicylic acid, or by anything else. The physician can palliate pain and perhaps shorten the attack; can perhaps prevent or control complications, and stiffness in the joints, but he cannot arrest the disease. Where rest, proper diet, and warmth are enjoyed, most cases will get well just as soon without as with the use of other remedies. Dr. Austin Flint, of New York, in support of this statement, subjected some patients, a number of years ago, to the expectant treatment, and found that they made just as rapid and just as complete recoveries as those cases under active medication.

Purgatives have been used in all ages in the treatment of this disease, because it was considered to be a fever. We are all too apt to put our necks into the yoke of a theory. In olden times they thought that the system ought to be reduced. Before the time of purgatives depletion was employed. This mode of treatment I will not even discuss. There is no evidence that I know of in favor of purgatives. There are very good reasons, indeed, why they should not be used: (1) because they cannot possibly cure; (2) because they oblige the patient to make painful movements; and (3) because they expose him to the danger of cold.

A celebrated London physician had all his

patients packed in blankets, and did not allow them to move a finger. This was going to the other extreme.

There are certain cases in which purgatives are alleged to be of use, viz., those in which the bowels are constipated, and there is a bitter taste in the mouth. I have never seen such cases except in habitual drunkards, and in their case a purgative does more harm than allowing the effete matter to remain in the system.

Opium was once vaunted as a specific, and it was claimed that it diminished the complications of the disease. Dr. Corrigan, of Dublin said that large doses of opium were well borne—say from four to twelve grains in the course of the twenty-four hours, or sometimes he advised giving as much as one grain every hour. Opium so employed does not produce narcotism, and does not constipate the bowels. More recent experience has shown that opium, of all remedies, is the most likely to cause complications in the heart.

Some have recommended colchicum, arguing that because it does good in gout, it must therefore do good in rheumatism But colchicum is not a remedy for rheumatism.

Many years ago it was very much the custom to administer large doses of powdered Peruvian bark. The rationale of these large doses was founded upon their sedative effect. Haygarth, Morton, Heberden, and Fothergill were the first to employ this method. Later still, a number of noted French physicians, among them Briquet, Andral, Moneret, and Legroux, renewed the use of this medicine in the form of quinia, but gave it in smaller doses, seeking only its tonic effect, from five to fifteen grains being administered in the course of twenty-four hours, and then it was continued in smaller doses.

Still more recently, quinia has taken the place of Peruvian bark and the old plan of administering large doses has been resumed. From thirty to one hundred grains have been administered in the course of twenty-four hours. Never was there a more profligate waste of a precious medicine. Even the physicians who so used it, were obliged to acknowledge that it only did good in subacute and mild cases.

I believe that it has also been fashionable in the so-called cases of *hyperpyrexia*, to immerse the patient in a bath varying in temperature from sixty to ninety-eight degrees Fahr. Although patients thus treated sometimes recovered, they also sometimes perished from congestion of the lungs and brain.

Among cardiac and nervous sedatives, digitalis, veratrum album and viride, veratria and aconite, have at one time or another been employed indiscriminately. Such treatment, of course, has only proven itself to be a monument of rashness to those who employed it. Such sedatives may reduce the pulse, but do not shorten the disease. Indeed, if it is possible to prove the absurdity of anything more clearly by mere enumeration of these medicines as cures for rheumatism, I do not know of it, Do digitalis and aconite act in the same manner? This is just one expression of the folly which has surrounded the use of digitalis at its first discovery. Every affection of the heart was treated by digitalis.

Within the last few years new remedies have been proclaimed in salicylic acid and its sodium salt. I confess that I possess no personal knowledge of their use in this disease, for I was at first dissuaded from employing them by a prejudice against the grounds on which they were recommended, and more recently by the contradictory judgments respecting them, and the unquestionable mischief they have sometimes caused. According to the eulogists, the arrest of the disease is, secured by them within four or five days, whether the attack be febrile or not; its mortality is diminished; relapses do not occur if the medicine is used until full convalescence; it is without influence on heart complications already existing, but it tends to prevent them as well as other serious inflammations. One of these gentlemen assures us, that to say it far excels any other method of treatment would be to give it but scanty praise. But, upon the other hand, it is accused of producing disorders, and even grave accidents, in almost all the functions of the economy In some cases it has caused ringing in the ears, or deafness, or a rapid pulse, or an excessively high temperature, panting respiration, profuse perspiration, albuminuria, delirium, and imminent collapse. In one published case, this antipyretic did not lower, but, on the contrary, seemed actually to raise the temperature so high that immediately after death it stood at 111° F. Many, very many, analogous cases have been published. I repeat, therefore, that I am personally unacquainted with the effects of this medicine in acute articular rheumatism, and that I have not, thus far, been tempted to employ it.

BLISTERS AND ALKALIES THE MOST RELIABLE REMEDIES.

It may be difficult to see the connection between these two classes of remedies in their power to influence the course of acute articular rheumatism, and yet it is certain that they do so influence it, and in the same way, *i.e.* by altering the condition of the blood from acid to alkaline. If you ask me to explain to you how blisters act in this way, I am obliged to confess my ignorance. To produce this effect, they must be applied over all the affected joints. Experience, if not science, has decided conclusively in their favor. They do produce a cessation of the local symptoms, render the urine alkaline, and diminish the fibrin in the blood.

This brings us to a consideration of the use of

alkalies. Alkalies neutralize the acids, act as diuretics, and eliminate the *materies morbi*. Alone and in small doses, they are unable to cure; but when given in very large doses, their effects are marvellous; the pulse falls, the urine is increased in quantity and becomes alkaline, and the inflammation subsides. The symptoms of the disease are moderated, the duration of the attack is shortened, and the cardiac complications are prevented.

The dose of the alkalies must be increased until the acid secretions are neutralized. A very good combination of these remedies is the following.

R. Sodæ bicarb	ʒ iss.
Potas. acetatis	ʒ ss.
Acid. cit	f. ʒ ss.
Aquæ	f. ʒ ij.

S.—This dose should be repeated every three or four hours until the urine becomes alkaline. On the subsidence of the active symptoms, two grains of quinia may be added, with advantage, to each dose The alkalies must be gradually discontinued but the quinia continued.

The diet should consist of beef-tea or broth, with bread and milk; no solid food should be allowed. Woolen cloths moistened with alkaline solutions may with advantage be applied to the affected joints. To these laudanum may be added for its anodyne effect.

The patient must be sedously protected from vicissitudes of temperature, and lie in bed between blankets.

The alkaline treatment relieves the pain, abates the fever, and saves the heart by lessening the amount of fibrin in the blood.

A long time ago Dr. Owen Rees, of London, introduced the use of lemon juice. This remedy was thought to convert uric acid into urea, and so to help elimination. Though the treatment is practically right, the theory of it is wrong. Lemon-juice does good in mild cases, but cannot be relied upon in severe attacks.

During the febrile stage of acute articular rheumatism the diet should consist mainly of farinaceous and mucilaginous preparations, with lemonade and carbonic acid water as a drink. The cloths applied to the joints should be changed when they become saturated with sweat, and in changing them the patient should be protected from the air.

The sweating may be controlled by small doses of atropia, from one-sixth to one-thirteenth of a grain. To prevent subsequent stiffness, the joints should be bathed with warm oil and chloroform, and wrapped in flannel cloths. In the proper season this condition is very well treated by sea-bathing. There is no specific plan of treatment in acute articular rheumatism. The treatment must vary according to the intensity of the inflammation and the peculiarities of the patient.—*Md. Record*, Jan. 18, '79.

MICROSCOPY AS AN AID TO MEDICAL DIAGNOSIS.

BY DR. C. HEINTZMAN, NEW YORK.

In order to understand the urinary sediment it was necessary to be familiar with the anatomy of the kidney, and the anatomy of the kidney could not be understood without familiarity with its entire histology. When that was mastered the study of the urine could be commenced.

The anatomy of the kidney was first considered, and a detailed description given of the structure of the cortical and the pyramidal substance.

There were mainly three kinds of inflammatory processes in the kidney, formerly considered under the general term Bright's disease. He thought, however, that such terms as Bright's disease and Pott's disease were general terms, and should not be used by scientific men.

The inflammatory processes in the kidney were mainly of three kinds: 1. Catarrhal; 2. A more severe form, or croupous; and 3. A still more severe variety, suppurative nephritis.

The catarrhal process consisted essentially in a serous exudation, in which there was desquamation of a certain amount of epithelium that could be seen in the urine. That primary condition could give rise to new connective tissue formed from epithelium, and at last terminate in the small granular kidney. If, therefore, we found in the urine a varying amount of albumen with epithelia of the kidney, recognized by their size, we could determine positively that an inflammatory process of a milder character was going on in the organ; in other words, that the patient was suffering from catarrhal nephritis,

In another series of cases there was present in the urine a varying amount of albumen and tube-casts.

Dr. Heitzman believed that the tube-casts consisted of protein substance, or a modified form of fibrinous or albuminous material. Hence there was no good reason for omitting the term *croupous nephritis*. He then referred to the various theories which had been given regarding the formation of tube-casts: 1. That an exudation took place in the tubules, coagulation occurred, and casts were formed; 2. That the epithelium lining the tubules was transformed into casts; and 3. That the casts were produced by the coagulation of material secreted by the epithelia themselves. The latter was the theory which he adopted.

A brief description of the various kinds of epithelium found in the uriniferous tubules was then given: 1. The epithelium of the convoluted tubules, which he thought were separated by a cement substance; 2. The flat epithelium of the loops of Henle; and 3. The cylindrical epithelium in the straight tubules.

In sections of kidney, which were the seat of croupous nephritis, cast material could be seen in the tubules; and of casts there were five varieties: 1. Hyaline casts: 2. Epithelial casts; 3. Blood casts; 4. Fatty casts; and 5. Waxy casts.

There might be a sixth variety, or granular casts.

In ordinary acute croupous nephritis there were found in the urine hyaline and epithelial casts; but if the disease was very severe there might be blood casts.

In the chronic stage of the disease there were found granular casts; and if fat globules were present it was indicative of fatty degeneration of the kidney. Lastly, if waxy casts were found in the urine it was evidence that we had to deal with a waxy degeneration of the kidney.

Dr. Heitzman believed that whenever casts appeared in the urine they indicated severe disease of the kidney, namely, croupous nephritis.

A recent German writer had advanced the opinion that mere hyperæmia of the kidney could give rise to casts, but he doubted the correctness of that opinion.

Not only did casts indicate the stage and the nature of the disease, but they also indicated the portion of the kidney which was the seat of the disease. In the mildest cases the casts were from the loop tubules and the convoluted tubules of the second order. If the number of casts from the convoluted tubules was considerable, it was known that the cortical substance was chiefly invaded. The mere size of the casts, besides the number and the character of the cast, was indicative of the disease called croupous nephritis. We very often met with casts from the convoluted tubules with a stump-like attachment, which indicated that they had also been formed in part in the straight tubules. That was a form of cast which he had not seen described, and indicated the exact situation of the inflammatory process. Based upon these principles, he had been able to make a diagnosis by examination of the urine alone, and had seen his diagnosis proved true by the subsequent history of the cases. As an illustration, the urine of a boy, six years of age, was brought to him for examination. He had suffered from a very slight attack of diphtheria. Three varieties of casts were found in the urine, and the case was set down as one of severe croupous nephritis. The boy died three days after in a convulsion.

There was possibility of recovery from croupous nephritis under the following circumstances: 1. When it occurred in connection with scarlet fever; and 2. when developed in connection with pregnancy, or, as occasionally happened, after delivery. In the first instance recovery was due mainly to the recuperative power possessed by children, and in the second class of cases it was because only one kidney, as a rule was affected. Perfect recovery in both instances was possible.

With reference to *pus corpuscles* he was able to tell where they came from only when they were mixed with epithelia, which indicated the seat of the disease. If pus corpuscles with flat epithelia were found in the urine it was evidence that suppuration existed in the bladder. If the caudate epithelia were present with pus corpuscles it was evidence that the pelvis of the kidney was the seat of the suppurative process. If small epithelial cells were found with the pus corpuscles it was evidence that the inflammatory action was in the kidney itself. It was only in acute cystitis that the flat epithelial cells with pus corpuscles were found. In chronic cystitis the flat epithelia were absent, and black pigment was found in the pus corpuscles. Again, if pus corpuscles with epithelia from the kidney were found in the urine it was evidence that a more or less dangerous suppurative process existed in the kidney. If hematoidine crystals were found in the urine it was evidence of a chronic morbid process, and if associated with pus corpuscles, of a chronic suppurative process.

THE DIAGNOSIS OF LUNG DISEASE.

The chief elements met in the sputa were mucous corpuscles and pus corpuscles. The question arose, What was the difference between a mucous corpuscle and a pus corpuscle? The answer was, that the mucous corpuscles were nothing but the protoplasm of the epithelial cells themselves, and were pale and *finely* granular bodies, while the pus corpuscles were *coarsely* granular bodies.

Dr. Heitzman believed that Cohnheim was mistaken when he stated that all pus corpuscles were migrated white blood corpuscles, for the formation of pus corpuscles could be traced to the firmer tissue itself. No one would deny that a certain number of pus corpuscles were migrated white blood corpuscles, but he did not believe that all of them were produced in that manner.

The lungs normally contained a certain amount of pigment, therefore when pus cells were found in the sputa contained pigment granules, it was an indication as to where the pus-cells came from. The presence of elastic fibres in the sputa indicated that there was positive destruction of lung tissue. He might not be able to say what had destroyed the lung tissue, but it could be said with great certainty, if with the fibres there were found certain protoplasmic bodies, that the destruction was due to the formation of a cavity.

Reference was then made to cases in which he had been able to make a diagnosis of serious lung disease by examination of sputa before any evidence of such disease was given by physical signs.

THE DIAGNOSIS OF TUMORS.

There was no doubt the science of microscopy had advanced so far that we were able to tell

positively what kind of a tumor we had to deal with. If a few points were kept in mind we could easily determine whether we had to deal with a benign or with a malignant growth. The key to diagnosis was chiefly in the basis substance, whether fibrous, myxomatous, cartilaginous, or bony. The more of the basis substance present the more certain was the tumor benign; the less the basis substance the surer was the tumor malignant. Malignant tumors were of two kinds: 1. The kind belonging altogether to the connective tissue series, and termed sarcoma; and 2, the kind belonging to epithelial formations, and termed cancer. Further, if we saw slight basis substance without epithelial elements, and without alveolar arrangement, we could say that it was a sarcoma; while if we saw epithelia arranged in alveoli, without respect to size or shape, we made the diagnosis of cancer. In the latter case, also, a great deal could always be determined by examination of the connective tissue outside of the epithelium. The more abundant the connective tissue about the epithelial nests the less malignant was the cancer, while the more numerous the epithelia were, and the less abundant the connective tissue, the more certain we were that the cancer was a malignant one.

Again, there were present in the connective tissue itself a vafying number of peculiar shining globular elements which, by recent examiners, had been considered as the product of a kind of inflammatory reaction from irritation of the epithelium. The more crowded those corpuscles were, the worse the cancerous tumor. If we wished to know whether or not the tumor had been thoroughly extirpated, it should be examined about its boundary. If the connective tissue was found provided with only a small number of inflammatory elements so-called. we might be sure that the cancer would return within a very short period of time.

COLORLESS BLOOD-CORPUSCLES AND PROTOPLASM.

Under this head the lecturer referred to the discovery which he made five years ago, regarding the anatomy of protoplasm, and its presentation before the Society three and two years ago. (See MEDICAL RECORD, Vol. XI., p. 322, and Vol. XII., p. 94.) He then claimed that protoplasm of any description invariably contained a net-work of threads and granules, that held in its meshes a fluid, and that the threads and the granules constituted the living matter. To-day, more than a dozen of the best microscopists abroad had accepted his discovery, although it had not been recognized in this country. That the reticulum was present, no one had a right to doubt; but that the threads and granules were living matter had as yet not been acknowledged. That it was living matter he had to prove, which he felt himself able to do by the recognition of two well-established facts.

The first property attributed to living matter was *motion;* and the second, *capacity for reproduction of its kind.* As evidence that this matter was living, was the motion which could be seen in it, and it was enough to establish its reproductive power to know that the granules increased in size and number during the inflammatory process. Transferring the idea to the study of the human body, Dr. Heitzman reasoned that these corpuscles should contain more living matter in the healthy and strong individual than in the broken-down and scrofulous person. Acting upon that supposition, he began, three years ago, to study pus-corpuscles in the urin in connection with clinical histories, and reached the conclusion that the constitution of the person from whom they came could be determined in that manner. Having settled the question that pus-corpuscles from a healthy person contained an abundance of living matter, an abundance of granules, while those from a debilitated person contained granules which were very small and a very marked net-work, it occurred to him that perhaps by examination of the colorless blood-corpuscles he would be able to tell directly what the constitution of the individual was from whom the blood was taken. So it was, and he had found that when the colorless blood-corpuscles, examined with moderately high power (800 to 1,000 diameters), were found to contain an abundance of granules, it was evidence of a first-class constitution; on the other hand, if only fine granules were seen, and the entire body of the corpuscle was pale, it was evidence of a poor constitution. He had very often noticed that the number of white blood-corpuscles was considerably increased after a single sleepless night, so much so, that it might be determined whether a man had been kept from his rest or not, by examination of his blood. It could also be determined whether a man was to have acute diseases, or whether he was to suffer from the slow processes of disease incident to a strumous diathesis.

These facts being determined, they might exert a very great influence upon the entire question of life assurance. Not only that, but they might exert an important influence upon the question of marriage. To know something of the general condition of our patient was very important. If that could be determined by an examination of a drop of his blood, we had learned much with regard to his future welfare, and a new field was opened worthy of the investigation and study of every physician.—*Medical Record, January, 1879.*

TREATMENT OF TYPHOID FEVER.

In a lecture by Dr. Alonzo Clark, reported in the N. Y. *Med. Record,* he remarks: I may safely say to you that a case of typhoid fever of average severity needs no medicine except for the relief of

certain symptoms, such as sleeplessness, perhaps a little urgency in the diarrhœa, sensation of burning on the surface of the body, etc. There are a great many cases of typhoid fever which need no treatment whatever by way of drugs, but everything by way of management of the case. Still, it does happen in many of these cases that some one of the symptoms requires treatment. The diarrhœa, for example, in many cases, requires restraint.

Diarrhœa does not occur in every case of typhoid fever in this country; perhaps it does not occur in two-thirds of the cases. The astringent I have referred to so frequently is found to answer a very good purpose. It consists of:

℞. Bismuth. subnit . . . . . dr.i.
Morphiæ sulph. . . . . gr. i.
M. et div. in chart. . . . . No. xii.
One to four a day.

The common astringents tr. kino and tr. catechu may be employed, and the decoction of blackberry root is sometimes very serviceable. In some cases it requires the moderate by free use of opium to restrain the diarrhœa.

There is always a *cough* in typhoid fever, but as it is not important in the average case, I have not mentioned it until now. There is slight bronchial irritation, which appears early in the disease, and continues usually until the period of imperfect anæsthesia is reached, then it may cease. The material raised is commonly a glairy mucus, but in some cases the slight bronchitis becomes a catarrh, and will require treatment. It will need the same treatment as bronchitis occurring under any other circumstances, except that the tonic expectorants will be most likely to do good. Perhaps one of the best that can be used is the *Co. Tr. of Benzoin*, in doses of ten drops on sugar once in three or four hours. A very good combination is the tincture of the balsam of tolu and the mistura guaiaci.

℞. Mist. guaiaci . . . . . dr. j. to ℥ ss.
Tr. balsam tolu . . . . . gtts. vj. to x.
M.

This can be repeated every two, three, or four hours. Sometimes the inhalation of the vapors of warm water seems to be required for one or two hours each day.

Restlessness is one of the prominent features of the disease, and that will very frequently be entirely quieted by sponging the surface of the body with warm or cold water. If the temperature is high cold water is better than warm; and in some cases a Dover's powder will be required.

The *temperature of the body* will require your attention. In many cases of typhoid fever it does not rise to a dangerous point; in a few cases it does. You will see the greater number of cases go through the entire course of the disease without the temperature at any time reaching 105° F. In a case of average severity the maximum temperature is about 104° F.; in occasional cases it reaches 106° F. or 107° F., and then you will either give quinine in pretty decided doses or use cold water for its reduction. If the patient is a young person, the cold bath is the most convenient means of reducing the temperature, and certainly the most efficacious. The temperature of the bath should be only ten degrees below the temperature of the body when the patient is first put into it. If the temperature of the body be 102° F., the patient may be placed in a bath having a temperature of 95° F.; then some of the warm water can be removed, and be replaced by cold water until the bath has been reduced to 80° F. If the patient is permitted to remain in the bath twenty minutes, the temperature is usually reduced 1, 2, 3, 4 or 5 degrees.

He is then removed from the bath, put back into bed, and it will be several hours, usually, before the temperature will rise as high as it was before using the bath. When it rises, another bath is to be given, and in that manner you will go on repeating the bath as often as may be necessary to keep the temperature below the point of danger.

The son of one of the Professors in the college has within the present season had typhoid fever. In his case the bath was used about five times a day for several days, and always with the result of reducing the temperature and affording great relief to the patient.

For the hemorrhage from the bowels there is but little that can be done, unless, in addition to absolute rest, the fluid extract of ergot be administered.

For the perforation of the bowels, I have some faith in the opium treatment. As I told you, I feel confident that I saved one doctor's life by the narcotizing influence of opium, and there is no objection in typhoid fever to the administration of this drug.

Now we come to the two essentials in the treatment of this disease. I am in the habit of repeating the old proverb, "Stuff a cold, and starve a fever," and then add that we stuff them both now. First, then, the administration, steadily and perseveringly, of such food as can be absorbed by the stomach. We cannot talk much of digestion; the stomach is in a diseased condition, and cannot digest well, consequently everything solid in the way of food is out of the question. Most of these patients dispose of milk pretty well. For all those who can dispose of it, milk is the best food that can be used. For those who cannot use it, you will be obliged to do the best you can with beef-tea, raw egg beaten up with water, and made of such consistency that it can be taken with a spoon; and the expressed juice of beef. The beef-tea does not contain a great deal of nourishment, and when it can be used, milk is a much better article of food.

The expressed juice of beef answers very well, and can be obtained by cooking a piece of steak so as just to crust the two surfaces, and then cutting it into pieces and squeezing the juice out with a lemon-squeezer. The broths are given rather as diluted food in the early part of the disease, when it is supposed that the patient should not take much nourishment, but as the disease advances, the food should be more and more sustaining. In cases in which the stomach fails to retain the food, nutritious enemata should be employed. You will remember that the disease which produces the diarrhœa, is in the small intestine, not in the large.

The other essential of which I wish to speak is fresh air, but I will reserve that for the opening of the next lecture.

PLEURISY WITH EFFUSION IN AN INFANT FOUR MONTHS OLD; PARACENTESIS; RECOVERY.

Under the care of Dr. Cayley.

George W——, aged four months was taken as an out-patient to the hospital on October 22nd, 1878. He was a well-nourished, well-grown infant, fed entirely at the breast. His mother stated that he had always been healthy till the present attack. A week before, the child began to suffer from cough and difficulty of breathing, which soon became very great. Medical advice was obtained, and the mother was told that he was suffering from congestion of the lungs. She could assign no exciting cause for the attack, but said that immediately before, a scabby eruption, which had covered the child's head for some time, disappeared. The child continuing to get worse in spite of treatment, she took him to the hospital. He was then suffering extreme dyspnœa. The respirations were excessively rapid. He kept tossing his arms about and throwing his head back. The extraneous muscles of respiration were brought into active play; but there was no laryngeal stridor, or inspiratory retraction of the ribs, and the face was not cyanosed. There was a frequent short abortive cough. On examining the chest, absolute dulness was found over the whole of the left lung, with absence of breath-sounds. The heart was displaced, and the apex could be felt beating to the right of the sternum. The breath-sounds on the right were much exaggerated. Dr. Cayley at once performed paracentesis. The trocar and canula were introduced in a line with the angle of the scapula, and eight fluid ounces of very turbid serum, which solidified on boiling, were drawn off by a bell-jar aspirator. The mother then took the child home.

On Oct. 25th the child was brought again. The dyspnœa had been at once relieved by the operation, and had not returned. The breath-sounds were audible quite down to the base of the left lung, but the percussion-note over the back was deficient. On Oct. 29th the child appeared quite well, with the exception of a slight cough; the physical signs remained unaltered. On Nov. 5th, the child still had a cough, but was otherwise quite well. The scalp was again covered with a scabby eczematous eruption. The percussion resonance at the left base was much impaired, and the breathing somewhat tubular.

Remarks by Dr. Cayley.—I believe this to be youngest case of pleural effusion on record. Several cases of empyema and simple effusion in children between the ages of twelve months and two years have been published, and I now have in the hospital a case of empyema, which is being treated with a drainage-tube, in a child one year and ten months old. It is of course possible that cases may sometimes occur without being recognized. At the North-Eastern Hospital, however, where it is the practice to auscultate all infants, suffering from dyspnœa, no other case under the age of twelve months has yet been met with.—*The Lancet.*

VARIETIES OF PULMONARY PHTHISIS.

Extracts from a Lecture delivered in Bellevue Hospital Medical College.

By Andrew Clark, F. R. C. P., London.

(*Continued from page 142.*)

Now, in the second classification, we have a caseous pneumonic phthisis. The history of this form of phthisis is almost the reverse of that of tubercular phthisis. In tubucular phthisis the constitutional symptoms are profound, while the local symptoms are comparatively few. In the cases I am now describing we have an abundance of local symptoms. By physical examination perhaps one-quarter, one-third or one-half of an upper lobe of a lung may be found to be uniformly solid. You will have dullness and tubular breathing, which may be accompanied or not by crackling. You may have bronchophony, but the constitutional symptoms are often few. The patient looks fair, has a bright eye, is well nourished, and perhaps slaps his chest and says, "But for this cough I would be quite well." Perhaps the disease has come on insidiously. Perhaps by inflammation not so severe as croupous pneumonia, and the case itself runs for an indefinite time until a certain change takes place which brings it within the pale of serious cases of phthisis.

Suppose, then, we have a case of pneumonic phthisis with unbroken consolidation of the lung or only a few small cavities. The patient is tolerably well, engages in his work, complains comparatively little of constitutional symptoms. By and by the caseous pneumonia breaks up into large

cavities, and sooner or later the opposite lung may become affected either by the deposit of tubercles or by the formation of little patches of lobular pneumonia.

Here again the subject is full of complexities and we are in a little difficulty. Sometimes cases of caseous pneumonic phthisis are slow, subacute, almost chronic. But there is a certain section of these cases which is extremely rapid. There are those cases in which the fever rises and the deposit in the upper part of the lung breaks down rapidly, and within four, five or six weeks the patient dies with all the symptoms of phthisis. These may be called cases of acute caseous pneumonic phthisis, and answers to the true galloping consumption of our forefathers.

Now, passing from this caseous pneumonic phthisis, I will make the following additional statement: The usual rule with tubercular phthisis is death. I do not say there are no exceptions to this; perhaps cases of tubercular phthisis may get better, but they are few. It is in cases of pneumonic phthisis no doubt that the greatest number of recoveries take place, and they take place in one of several ways. Sometimes the exuded caseous pneumonic stuff undergoes fatty metamorphosis and is really absorbed. In other cases the caseous matter, not being quite melted and absorbed, a kind of fibroid change takes place in the lung. It gets hardened, perhaps the bronchial tubes are a little dilated, and the whole affair settles down into a hardened mass. Sometimes these cases of caseous pneumonic phthisis, whilst destruction is going on, yet develop secondary fibroid change, which does the same for these cases as for those of of tuberculous phthisis.

I have said that occasional cases of tubercular phthisis progress slowly, and in proportion to the amount of fibroid degeneration. So it is in caseous pneunomic phthisis; for, if it excites a secondary fibroid degeneration the progress is exceedingly slow.

Now we come to speak of the cases which I have classified as fibroid phthisis. The chief clinical characters of fibroid phthisis are these: First, it is, as a rule, a-febrile. The pulse is quiet, and the general health is but little disturbed. The second point is, that usually, not invariably, there is, just as in the case of croupous pneumonia, a history of some inflammation. It may be a pleurisy, very often it is so; it may be a pneumonia, which has been unabsorbed and converted into fibroid mass, or it may be an irreducible recurring bronchitis which has caused the development of fibroid tissue; and lastly, but rarely, it may be due to some constitutional disease, such as syphilis or cancer. But the main point is, that while it has such a history it is almost always unilateral, while tubercular phthisis is almost invariably bilateral sooner or later. Pneumonic phthisis may be or it may not be unilateral. Fibroid phthisis is in ninety-nine cases out of a hundred unilateral. The local signs of fibroid phthisis are extreme contraction, with pronounced friction sounds and displacement of the organs. With these few points I will narrate the history of one case of fibroid phthisis which will enable you to understand better what what you are to expect in these cases than you would from a mere description.

Here is an illustration of an interesting lung which was converted into a fibroid mass, was surrounded by an enormous thickening of pleura, and had upon its summit about an inch of fat, an appearance which I have never seen before or since, although I have examined over four thousand bodies. The subject from whom the lung was taken was my first patient in the London Hospital some three-and-twenty years ago. When he came to me he was a stout man, about fifteen or sixteen stone in weight, and complained of cough and spitting of blood. At that time I did not know much about lung diseases. I examined the man with the utmost care and found nothing. But from the history of the case I thought perhaps he might be suffering from some internal growth, such as aneurism, or something of that kind. I afterwards learned that he had been under the charge of the surgeon at the other end of the hospital for a fractured rib, from which he had recovered. I took an interest in the man, but months passed before I discovered anything. The first thing which I noticed was a little crepitation, and the next a little contraction of the right side. By and by he began to have violent paroxysms of cough, which often ended in retching and discharge of fœtid muco-pus from the lung. Then more and more progressively the right side of the chest contracted; the heart was now pulled from the left to the right side; next he began to fail, and a bluish condition of the skin made its appearance. I watched him, and from year to year I found the symptoms steadily increasing. It was, perhaps, at the end of ten years when I exhibited him to my colleagues. He complained that he had a paroxysmal cough, which ended in vomiting and the expulsion of muco-pus, which was sometimes fœtid and sometimes not. He had severe pain in the right side, and that beyond being a little weak and exhausted by the cough he had nothing else to complain of. The physical signs were these: The right arm was slightly swollen, and the fingers were slightly swollen and bluish. The heart was drawn considerably to the right side; there was dullness over the right side of the chest; there was bronchophony; there was an increase of vocal resonance, and a metallic crepitation accompanied them.

When I exhibited him to my colleagues, they were all of opinion that he had some growth in the right lung. Well, he went on, the heart becom-

ing more and more drawn to the right side, and finally his skin began to get dry, and he became the subject of albuminuria.

I may here mention that this is another clinical fact connected with fibrous phthisis. At last the poor man became exhausted, and died.

At post-mortem examination the left lung was found perfectly healthy; I may say, every organ of the body was sufficiently healthy to require no notice, except, perhaps, the kidneys, which were slightly congested, and slightly harder than normal. The right lung contained nothing whatever which by any possibility could be called tubercle. It was clear, therefore, that the fractured rib had set up in the pleura a fibroid change which had invaded the lung, caused its contraction, and ultimately gave rise to the symptoms which ended in his death.

With your permission, I will mention just one other case. It is a case which was brought to me by Dr. Pollock, of the Charing-Cross Hospital. This patient sprung from a bronchitic family, and had repeated attacks of bronchitis and severe attacks of pleurisy. When the patient was brought to me there was complete dullness, diminished tactile and vocal fremitus, loud bronchial breathing, bronchophony, and a metallic character to the resonance. His symptoms were paroxysmal cough, often ending in vomiting, and dyspnœa, but no fever.

This case was examined by several physicians, and seven years ago was reported before the Clinical Society of London as a case of tubercular phthisis. Not long ago he died, evidently from an attack of acute bronchitis, brought on from exposure to cold; but before death there was a small quantity of albumen in the urine.

When examined after death these appearances were found: The right lung was perfectly solid; through it ran dilated bronchial tubes, aud in the solid portion there were several ulcerations producing cavities.

I have now in my wards, in the London Hospital, three cases, in different degrees of development, which illustrate one of the modes in which fibroid phthisis arises.

The first is the case of a man named Tenny. He is a thin, pale and delicate man. He is liable to cough with expectoration; but he says he is pretty well, except that he is very delicate. The remarkable feature about the man is, that he has scarcely any lung to breathe by.

His chest seems contracted, and he presents an appearance such as is seen in advanced phthisis; but it is not a case of phthisis at all. The more careful examination you make the more sure you are that you are dealing with a man who has semi-solid, contracted lungs, with but little space left for breathing, and, perhaps, slightly dilated bronchial tubes, which hold a small amount of secretion. But there is no evidence of destruction of lung-tissue, and he has had a kind of interstitial pneumonia for many years.

I have watched him from the beginning of the symptoms, which are like those in the other cases described.

The second case is that of a man called Douglas. He is in the position of having a contracted left lung, with crepitation all over it; bronchial breathing and bronchophony; but otherwise he is in tolerable good health. He, too, has the history of the third case.

The third case is that of a man who has been under observation for some time, but whose name I forget. But he has an irreducible fibrous pleurisy. He declares that he is perfectly well, and it is only by the greatest strategy and ingenuity that we are able to keep him in our wards. It astonishes him that we should be so anxious to have him remain with us. But we are very desirous that he should do so, in order that he may be utilized for purposes of our common instruction.

But the moment the hand is placed on the chest you feel a friction motion, and, over almost the entire chest, you can hear the to-and-fro friction sound. This is an example of the beginning of these cases. Tenny's difficulty began in this way. They come into the hospital with some pain in the side, with little or no effusion in pleural cavity; probably an effusion has been present at some time, and they get apparently well; but the to-and-fro friction sound remains in some cases.

In none of these cases have I been able to render any therapeutical service whatever.

In the last case it will be my endeavor to keep the patient in the hospital, so that I can trace the clinical history through its entire course.

I will just say, however, with reference to these illustrations, that, if you will cast your eye backward, I think you cannot fail to see, first, that there is sufficient ground for pathological distinction; and, second, if I could reproduce in your minds, as clearly as I see them in my own, the clinical distinctions, I am sure you will accord with me that there is a clinical diagnosis in phthisis, and that it is just and proper that it should be recognized; for if they are different in origin, different in modes of development and progress, therefore necessarily different in treatment, and different in issue, it is but right, whether the destructive agent is distinct in structure or homologous, that we should have a separate name to represent things which, at all events, are different in their apparent nature.

In regard to treatment Dr. Clark said he pretended to no special knowledge of the treatment of phthisis. Whenever he encountered any chronic disease he dealt with it on principle. Every organism has a righting, a repairing, and a resisting power, and it exercises these powers in proportion

as we give them fair play. He proceeded always in a chronic case to determine what would be fair play for the organism suffering. Hence, diet, air, attention to the general functions, form always the first points of treatment in such a case. While the profession are ready enough to give a liberal supply of medicines, we too often overlook those minor details of daily life which, in the end, make and unmake life. Of tubercular phthisis he had very little to say. The principal thing to do is to look after the general health. The tendency to resistance being lowered permits the advance of the disease with which the patient is threatened. If he could keep him free from colds and consequently from pneumonias, he was practically doing as much for his patient as he could. There are no principles in medicine : it is in fact one of the most unprincipled of arts. Every organism is somehow or other different from every other, and it contains within itself the laws for its own management. The wise man, he who has the gift as well as the knowledge of healing, is he who with an instinct is ready to discover the laws of the organism with which he is dealing, and governs himself accordingly. It would be foolish to say in detail how he should deal with a case of tubercular phthisis. Regulated diet, moderate use of alcohol, air, exercise, avoiding colds are the principal means to be used. He had tried this medicine and the other, hypophosphites, arsenic, iron, cod liver oil, &c., but he could not say, looking at the whole with an honest, critical eye, he could lay his finger on any remedy which has any specific influence. As regarded caseous pneumonic phthisis, he believed in the efficacy of treatment. In an acute case, he had great faith in treatment. He puts his patient to bed and keeps him there until his temperature falls below 100°, no matter how long that might be. In cases where the secretions are scanty, the tongue dry, temperature high, pulse quick, he satisfied himself with a free use of salines and with counter irritation. If he found the patient remaining feverish, he gave up citrate of potash, and put a drachm of antimonial wine into a tumblerfull of water, and made him sup that during twenty-four hours. The skin breaks out into perspiration, tongue becomes moist, expectoration usually begins : then he immediately stops and treats his patient with effervescing alkaline salines with quinine and citric acid. He next feeds him with milk and beef tea. We often forget, practically, that liquid food goes quickly to the lung. In cases where exudation is going on in the lung, we minister to it by filling our patients with fluid food at short intervals. In rapidly extending pneumonia, he had seen exudation hurried to a fatal end by the administration of fluids every half hour. Food should be given in a more solid form, and not oftener than every four hours. This is one of the forms in which he believed alcohol to be extremely useful. In cell proliferation, alcohol is useful, and he would extend it to scrofulous diseases generally. In regard to change of air, he first found out whether the most comfort was experienced in the valley or on high land, and would be guided accordingly. Hence what suited one person would be death to another. He deprecated the sending of patients away from home comforts when the disease was far advanced. Maderia and the South of France were the favorite and fashionable health resorts of English consumptives, but he knew of some remarkable instances where the murky atmosphere of London gave the greatest comfort to phthisical patients. He thought highly of our Colorado Canons and Florida, and regretted that they were not more easy of access to European phthisics.—*Med. Record.—Canada Med. Record.*

SUICIDE NOT AN EVIDENCE OF INSANITY.

Hon. O. H. Palmer (in the *American Joural of Insanity* for April, 1848), discusses this topic. He says that the diversity of manifestation is immense, unmeasurable and unascertainable. But this does not prove insanity, or derangement of the normal condition of the intellect. Sanity is the normal condition of the mind in all its diversities and variety of character. This is law as well as logic. Notwithstanding this principle is so well established, but few outside of the literature of the courts are found to believe it.

This phase of life and its antagonist, death, is so well understood by life insurance companies, that they try to protect themselves by clauses in their policies exempting the companies from liability in case of suicide of the holder of a policy, and yet how often do the companies fail to protect themselves, because an average jury cannot be made to believe that a man who commits suicide is not insane.

The rulings of the courts plainly establish the doctrine that there is no presumption of law, *prima facie* or otherwise, that self-destruction arises from insanity. To overcome and successfully combat this doctrine in a court, it will be necessary to prove the exception to the general rule.

Now, a feeling of disgust with life may be great enough to cause a man to commit suicide. Where, then, is the insanity? A man, rather than live under the stain of dishonor, may nerve himself to take his own life. Where is the insanity, as a necessity?

From the earliest times men have taken their own lives from one motive or another, and no one who shall read the historical accounts of those men's lives and deaths will for one moment doubt their sanity. The Japanese take themselves off to revenge an insult, because they think they can imme-

diately return to this world as avenging spirits, and bring a ten fold evil on their enemies. This certainly is not insanity.

In fact, the whole history of suicide, whether in the sporadic form, or in an epidemic, shows that while a man may, in a fit of suicidal mania, take his own life, yet by far the largest number of cases of suicide occur when the subject is in his right mind. —*Detroit Lancet.*

MANUFACTURE AND USE OF DIALYSED IRON.

Having seen the happiest effects recently from the use of dialysed iron, administered to two female patients suffering from chlorosis, both of whom objected to taking iron in any form as it had always made them suffer more unpleasant effects than did the disease itself; and the rapid benefit following the administration of this comparatively new preparation of iron, led me to read up its chemistry and mode of preparation. In addition to the very favorable notice from Dr. S Weir Mitchell, I was very much impressed with the article written by Dr. Yandell, of Louisville, and also by an analysis given in a late number of the Boston Medical and Surgical Journal, by Dr. Emory, of Boston. Messrs. Jno. Wyeth & Bro., of this city, having specially called the attention of the medical profession to this preparation, I took the liberty of calling upon them, and asked if they would give me an account of their mode of preparation and allow me to visit their laboratory and see the practical workings of their appliances for the manufacture of this iron. Instead of using a commercial iron in the form of iron wire and filings they use a chemically pure sulphate of iron. The entire freedom of the iron from any impurity is very essential. The pure sulphate of iron is precipitated in large vessels by means of ammonia. It is then carefully washed, drawn out, and drained into a large steam jacketed kettle and mixed with the proper proportion of sesqui-oxide of iron and heated to a temperature of 160 degrees. This gives the proper solution of per-oxide of iron ready for the process of endosmosis. The water they use to aid in the dialysation is furnished by an artesian well, dug for the purpose and the water is pumped into large vats on the roof of their four-story building. The water in these tanks is heated by steam through coils of pipe, which are so arranged that cold water may be added so as to regulate the exact temperature as may be thought necessery for the proper dialysation—this temperature being varied as the percentage of acid is lessened in the solution. Each appliance covers a surface of 400 square feet, enabling them to prepare about sixty gallons at one time with each one of their vessels. It requires from ten to thirty days to finish each separate acid solution placed upon the membrane. Every day during the process the solution is carefully assayed by the person in charge, so as to enable him to regulate the temperature of the water and prevent the membrane from being clogged by the iron solution. The essay is made by precipitating with aqua ammonia well washed. Heat is applied to expel the excess of ammonia in the solution. Nitrate of silver is added. The mixture is then allowed to stand and afterwards decanted, washed, dried and weighed. Washing, drying and weighing shows the percentage of iron in the solution. The standard strength of their solution of iron is 21 grains to each fluid ounce of pure per-oxide of iron, each fluid ounce containing only sufficient chlorine to prevent decomposition. Occasionally if the dialysation is carried too far some portion of the solution will gelatinize from the dialysor, and occasionally if exposed to the sunlight or air too long before being bottled this solution of iron will become thick. If a small percentage of distilled water is immediately added it will regain its limpidity at once, but if allowed to remain in this condition for some time it undergoes exactly the same change that takes place with the officinal hydrated sesqui-oxide of iron when kept under water for a considerable time. This solution when properly prepared should be almost tasteless and yield no reaction of acid to litmus paper, or any of the ordinary tests.

The usual dose is from five to twenty drops given three or four times a day. Its freedom from taste renders it especially desirable for children. As experiment has shown that only a certain amount of iron will be absorbed into the system at one time, I cannot recognize the advantage of giving it in larger doses, although some medical men claim that they get better benefit when it is administered in half teaspoonful doses. Dr. Weir Mitchell especially advocates the larger doses. Dr. DaCosta and a number of our leading physicians seem to prefer smaller doses, usually from 10 to 20 drops as a full adult dose. The dose given to the patients to whom I make allusion above was 15 drops three times a day. Physicians will readily understand why this solution of iron when properly prepared can be depended upon as an antidote for poisoning by arsenic. Its chemistry is almost identical with that of the hydrated sesqui-oxide of iron.—*Cor. Cin. Lancet & Clinic.*

ATTITUDE AND EXPRESSION IN DIAGNOSIS.

POTTS' DISEASE OF THE SPINE.

This is a tuberculous condition of an inflammatory character, and begins at the calcinated tissue of the vertebræ. This disease may lurk in the spine for a long time before it is discovered. If a careful examination is made we can generally pre-

dict the approach of this disease. It is very prevalent in young children, from birth until they reach the age of fifteen. If the secret progress of this disease can be detected by any displacement, a cure can generally be effected without any serious disorganization. No matter how early it may be detected, however, there will always be some resulting deformity. I see almost every week cases of disease of the spine which have been entirely overlooked.

One of the symptoms whereby this disease may be detected in its early stage is a feeling of discomfort about the sides, attended with sudden spasms of pain; the child cries out suddenly, and then relieves the pain by laying down. Another symptom is grunting respiration, short, hoarse breaths. We may have this symptom without the presence of Pott's disease, but its presence should always awaken the suspicious physician. Then, again, we very frequently find a child with Pott's disease leaning over a table and complaining of a tired feeling. This symptom is often present, and when so, is one of great value. The muscles of the back are weary because they are not perfectly energized by the nerves which are compressed by the inflammatory deposits and thickenings at their roots. Then, again, I have often noticed a child with the prodromes of this spinal affection jump from a chair or sofa to the floor, and lighting on its feet, seem for a time bewildered. If such a child walks about much, it does so with a great degree of uncertainty, and has a most peculiar gait: the shoulders are drawn up, concealing the neck, the arms are fixed rigidly and held away from the body. The patient does all this, and shuffles rather than walks along, to prevent all concussion of or shock to the spine

In a month or so after the disease has begun, the surgeon will be able to detect little irregularities in the spinal processes.

The least twist of the spine brings on pain and discomfort. The child is therefore compelled to keep perfectly rigid, and when it stoops, does so by bending one limb and carrying the arm down, while the spine is kept perfectly stiff, in other words, squats. The trapezius muscle is in a constant state of spasm, and so the patient keeps the shoulder up. The scapula, too, must be, and is, held up, for if it were allowed to drop, it would drag on the spine. The presence of this sign seems generally to indicate disease in the upper part of the column.

If, in any instance, you find one or more of these symptoms coexistent with pain in the chest and colicky pains in the abdomen, you may, in most cases, be pretty sure that you have to deal with a case of Pott's disease of the spine.

COXALGIA—HIP-JOINT DISEASE.

This disease very often goes on to its second stage before it is detected. Treatment, if it is to be successful, must therefore be begun early. If treatment is begun early, we may get very excellent results.

Long before there is any marked deformity in this, as in Pott's disease, certain prodromic symptoms may be discovered. These symptoms, I say, are apparent before the hip affection is manifest.

The earliest sign is a certain posture assumed by the limb on the affected side. The patient stands in a peculiar way. He rests firmly on the sound limb, but not on the other. One limb is well nourished and rotund, the other is generally somewhat emaciated, and is advanced, carried forward, and flexed at the knee on the thigh, and at the thigh on the body. The foot is also everted. Another point is the change which may be noticed in the crease which separates the nates from the thighs. This crease is entirely gone on the diseased side.

The limb assumes the attitude which I have described above, on account of certain conditions due to effusion in the joint. There is in all cases a synovitis—the initial lesion, if in the head of the bone, induces the synovitis. The serum in the joint requires room, and the patient places the limb in a position to give this effusion the greatest room. The natural position of the limb would give it no room at all. The amount of room is increased by flexing the limb at the knee and the hip, and turning the toes out. You can very easily verify this fact in the dissecting room. To do this, you must bore a hole above the acetabulum in a sound limb, and inject water into the joint. The limb on the side where the joint has been thus injected will take the very position which it assumes in a case of coxalgia.

Another prodromic sign of the disease is the following: if a child is placed in the recumbent position, and if it is healthy, it is just possible to edge in the fingers between the child's loins and the plane upon which it is lying. To do this, of course, the child must be placed upon a table, or some flat surface, and its limbs well straightened out. If one of the joints, however, in such a child be diseased, the knees will be raised when the child is placed upon the table, and then, if they be thrust down, the whole fist can be introduced between the table and the loins—the whole pelvis, in fact, goes up as the knees are pushed down.

The reason of this ought to be very clear to you all.

When I force the knees down, I put the psoas and iliacus muscles on the stretch. To relieve the pain caused by this stretching of these muscles, the patient puts his body in the position on the table which I have described, viz, with his knees raised. —(*Clinic in Med. Record, by Prof. Agnew.*)

THE POLYMICROSCOPE.—A recent number of *Nature* states that "a new improvement in the

microscope is reported from Germany. Herr I, von Lenhossek has constructed an apparatus which permits no less than sixty microscopical preparations being observed in immediate succession, without the trouble of changing the slides and readjustment of the object-glass. Its construction is similar in principle to that of the well-known revolving stereoscopes, and the inventor has given the new apparatus the name of "polymicroscope." —*Pacific Med. and Sur. Jour.*

TREATMENT OF WOUNDS OF THE SUPERFICIAL PALMAR ARCH BY ACUPRESSURE.—Mr. Bellamy believes that this simple method of treatment for serious wounds of vessels is not practised as frequently as it might be. He gives the case of a lad who divided the ulnar artery in the hand with a knife. He applied an Esmarch's bandage, but hæmorrhage soon recurred. He then plugged the wound and bound the hand firmly to a dorsal splint, but without effect. He returned bleeding as profusely as before. Mr. Bellamy then determined to try acupressure, and taking a stout hair-lip pin, passed it through the tissues about half an inch from the edge of the cut, under the artery, and out again to a corresponding distance the other side of the wound, and placed the limb again upon the splint. This had the effect of entirely stopping the bleeding; the needle was taken away on the fourth day, and the entire wound had closed by the end of the week.—*The Lancet.*

EXTIRPATION OF THE LARYNX.—Dr. George Wegner (Berlin), described, at the late congress of the Society of German Surgeons, the case of a woman, aged 52, who was operated on, in Sept. of last year. Tracheotomy was first performed on account of severe dyspnœa; and, the presence of cancer having been detected by laryngoscopic examination, the whole larynx was removed, along with the epiglottis. The patient was now in good health, and showed no signs of a return of the disease. She has used Gussenbauer's vocal apparatus occasionally, and had spoken distinctly with it. She could, however, wear it for only short times, as, in consequence of the fauces being imperfectly shut off from the trachea, portions of food and mucus readily passed into the latter, and interfered with the play of the metallic tongue. The cause of this was probably the removal of the epiglottis, from which proceeding, Dr. Wegner would abstain in any subsequent similar operation, unless it was found to be indispensable.

Dr. Wegner then showed the action of an artificial vocal apparatus on a girl aged 11, who, at the age of seven, had an attack of diphtheria, which was followed by cicatricial closure of the trachea and complete destruction of the vocal cords. When she was admitted to the hospital she wore a tracheal tube, and was quite voiceless. By means of laryngotomy and the use of bougies, the laryngeal passage was made pervious.—*Maryland Med. Journal.*

DISEASE OF TONGUE—EPITHELIAL CANCER VS. MUCOUS TUBERCLE.—You will notice this white, roughened spot on this man's tongue, on the left side, near the margin. It looks as if it had been recently touched with nitrate of silver, and, indeed, Dr. Hearn now informs me that caustic actually has been applied this morning. We will not, then, lay any stress upon the color, but will inquire into the history of the case, to seek to determine the character of the disorder. Twenty-two years ago the patient had a chancre, not followed by bubo or sore throat. He thinks this spot came on his tongue about two years ago; it has not materially increased in that time, and is not painful.

This looks very much like a mucous patch, such as we often find on the lips, tongue, and other mucous surfaces in certain subjects, as one of the results of syphilis. But I have never seen a mucous tubercle continue unchanged through so long a period as two years, and, therefore, we have a doubt entering into the diagnosis. One of two affections it must be, either a mucous tubercle or epithelial cancer of the tongue. As it is difficult to decide this question, we will institute treatment with a view to develop the diagnosis. I shall put this man upon specific treatment for constitutional syphilis, and if, as I have supposed, the affection is simply a mucous tubercle—as it seems to be, although its history would lead us to believe differently—I will expect decided results from the following treatment: I shall order that this man shall take ten grains of iodide of potassium and one-eighth of a grain of bichloride of mercury three times each day, in some simple syrup and water. The syrup of ginger will answer very well for the purpose. The iodides of potassium, sodium, or ammonium, are almost a specific in some forms of syphilis, and are about equally efficient. I generally aid their alterant, and corroborant effects by adding a small proportion of mercury. The mixture should be given after meals. Locally I will direct acid nitrate of mercury, diluted with water—one part to twelve—to be applied by means of a camel's hair brush, once in the twenty-four hours. Should the affection prove to be of syphilitic character, we shall be able to make a decided impression upon it in the course of a week or ten days. If the treatment prove of no avail I shall conclude that it is epithelial cancer. There are no enlarged lymphatics under the jaw, but should one be found it would not aid the diagnosis, for they occur in cancer as well as in syphilis.

The patient's diet must be restricted; he must eat very little meat. If this man had told me that this affection had existed for only a week or two I

should have very little hesitancy in announcing my diagnosis.—*Clinic of Prof. Gross.*

TREATMENT OF GASTRIC ULCER.—Dr. C. Hertzka, of Pesth, has employed chloral hydrate with excellent results in the treatment of ulcer of the stomach. He was led to try the drug because in addition to its hypnotic and anæsthetic powers, it has been demonstrated that it coagulates blood, favors the healing of ulcers generally, acts as a disinfectant, and, in particular, prevents the lactic acid fermentation, and finally, retards the functional action of the stomach and lessens the appetite. To a man, 48 years of age, who had been treated without success by the most various remedies, he administered every evening from forty-five to sixty grains of chloral largely diluted. This quantity was administered in three doses, at intervals of two hours, and at the same time Carlsbad water was freely given. On the third day the pains and vomiting ceased, and did not again recur. On the eighth day the patient was able to leave off the morphine injections, to which he had become accustomed. The chloral caused a severe burning sensation in the stomach, and produced a state of nervous depression, which ceased as soon as the treatment was discontinued (after fourteen days). Subsequently a feeling of burning and constriction in the œsophagus appeared at irregular intervals. Hertzka ascribed this feeling to the traction on the nerve-fibres by the contracting cicatrix in the stomach. For its relief subcutaneous injections of morphine had to be employed.

In a second case the chloral caused burning and vomiting. To prevent these unpleasant symptoms a morphine injection was administered two hours before the chloral, and large quantities of Carlsbad water were given after it. In future cases, Dr. Hertzka proposes to use smaller doses more frequently repeated.—*Centralblatt fur med. Wissen.—N. Y. Med. Record.*

THE RATIONAL TREATMENT OF STRICTURE OF THE URETHRA,—In a paper with the above title, Dr. Samuel W. Gross holds that in order to restore the urethra to its normal calibre it becomes necessary to insert a piece of new, soft, pliant tissue between the divided sides of the cicatricial tissue upon which the narrowing of the passage depends. This may be accomplished in the great majority of cases either by division or internal urethrotomy, or, by a combination of both procedures, in accordance with the indications presented by each individual case. Previous to the performance of an operation, however, the experienced surgeon will remember that he has to deal with something more than a mere passive obstacle to the free passage of the urine or the introduction of an instrument. In every case there is associated with the contraction a subacute or chronic urethritis, which is a source of spasm and irritability, to the latter of which most of the reflected symptoms are due. Hence, in the rational treatment of this affection the indications are: first, to allay congestion, spasm and tenderness whereby the urethra will be placed in the best possible condition for operative interference; secondly, to bring the constriction up to the normal calibre of that portion of the urethra in which it is seated; and thirdly, to mitigate or prevent an attack of urethral fever.

With a view of inserting a splice in the contracted part, divulsion or internal incision may be resorted to. Of late years I have practiced the former operation less frequently than the latter; not because I deem it unsafe, but because it is not always effectual. On three occasions I had the opportunity of inspecting the urethra of persons who had died after the procedures in the hands of other surgeons. In one instance the rents were so short that suitable splices could not have been inserted and, in addition, there were oblique lacerations in the healthy portions of the passage. These appearances are exhibited in the sketch that I made at the time. In the other two, although the tears were clean and long, there were submucous bands that had resisted the action of the divulsor. Thus of twenty-nine private cases, all of which recovered without a single accident, and in only two of which there was a chill, which occurred in patients who had not been subjected to preliminary treatment; in eight or twenty-seven per cent., the operation had to be supplemented by internal urethrotomy with the view of cutting undivided bands. For these reasons I consider divulsions as being far inferior to urethrotomy, but when the symptoms are urgent, as in the event of retention of urine or when the patient cannot spare the time for having the urethra sufficiently dilated to admit a cutting instrument, this much abused procedure possesses undoubted merits and is worthy of imitation, provided care be taken to search for unruptured bands and submit them to the knife.—*Medical Record.*

SUPRA-PUBIC LITHOTOMY.—C. W. Dulles, M.D., Phila., in a recent article *(N. Y. Med. Jour.)* analyzes the claims of this operation for stone, and concludes with the belief that it will some day be the one most generally employed. The two great dangers, peritonitis and urinary infiltration, are shown, both by the authorities and by the statistics, to be rarely encountered. It is true "the peritoneum may be encountered; it should be looked for, and, if met, gently pressed out of the way." The bladder should not be distended with an injection. "The operation, in its simplest form, is conducted as follows: The skin just above the pubes and over the linea alba is incised to the extent of a few inches, and an easy dissection brings one down to the region of the bladder. This is now pushed up on the end of a sound, passed through the urethra, and secured with a tenaculum. It is then incised to a proper extent and the calculus removed with fingers

or forceps. After which the wound should be covered with a light absorbent and stimulating dressing, the patient put to bed, and the subsequent treatment conducted on general principles."

The method of raising the bladder on the sound should be practiced first, if possible, on the cadaver. Theoretically, this operation affords the most direct, easy, simple and safe access to the bladder, and the author has no doubt that, if performed as generally as the perineal section, the results would be far more satisfactory.—*Toledo Med. and Surg. Jour.*

MALTINE.—At the late meeting of the British Medical Association at Bath in August last, among the exhibits of Pharmaceutical and Medical Preparations, much interest was shown in one called *Maltine*, which may be described as a highly concentrated extract of *malted barley, wheat and oats.*

Extracts of malt, (i. e., malted barley,) are pretty widely known, but this is the first example of a combination of the nutritious principles of these three cereals that we have seen; and the greater value of this combination is apparent, as wheat and oats are especially rich in muscular and fat producing elements. This preparation is entirely free from the products of fermentation, such as alcohol and carbonic acid, and is very agreeable to the taste. Clinical experience enables us to recommend it as a nutritive and digestive agent, in virtue of its albuminoid contents, and its richness in phosphates and diastase likely to prove an important remedy in pulmonary affections, debility, many forms of indigestion, imperfect nutrition, and deficient lactation. It will in many cases take the place of cod liver oil and pancreatic emulsions, where these are not readily accepted by the stomach, and we are disposed to believe that Maltine, which is less known here than abroad, is well worthy of practical attention.—*British Medical Journal*, Oct. 19, '78.

AN ULCER NUSSBAUMED.—After a liberal trial of the grafting process—and a patient and conscientious use of Esmarch's elastic bandage, these two being the latest novelties in the way of treating chronic ulcers, be they indolent or irritable, or both, I come back with more confidence to the operation suggested a few years ago by the distinguished surgeon Nussbaum. By it I have succeeded in curing these troublesome affections more surely, speedily and permanently than with any other plan.

The case before you is an indolent, irritable ulcer involving the skin over the internal malleolus. It has been treated in a variety of ways, occasionally it seems upon the point of yielding, it grows less and begins to heal, but upon the slightest provocation it reasserts itself. Upon exposure to cold or after fatiguing exercise, the healed portion yields, the irritability returns and the ulcer is soon of its original size—more indolent and painful. I now make an incision around it one half inch from its margin. The incision must go through the skin, it must reach the cellular tissue above the muscles. By it you divide the vessels, the numerous adventitious vessels, developed in the peri-ulcerated skin, that feed the morbid process. In this way you cut off its direct and too liberal supply of blood. Into this canal you stuff lint and leave it there for 24 or 36 hours, long enough to prevent the severed tissue from rejoining by first intention. This is especially important with the arteries—they must not be allowed to unite. In a short time the ulcer will begin to shrink—day by day the healing progresses and in a week or probably two it will have disappeared.

This case was shown to the class three weeks after the operation. The ulcer had been healed but a mistake had occurred in leaving the lint too long in the canal, it remained five days, and in that time suppuration had occurred in the floor. The repair in the canal required as much time as the ulcer. The dressing after the operation is simple. Cold water for forty-eight hours, after that lint saturated with oil, simple cerate or vaseline.—*Lancet and Clinic.*

HIGH TEMPERATURE.—In the *London Lancet* of Nov. 9, '78, is the report of a case, occurring at the Metropolitan Free Hospital, in which the thermometric *temperature*, taken in the axilla, *rose to 115.8.°* The patient was a pale, weakly, nervous and hysterical women, aged 32, the mother of four children, who had suffered four months previously with an attack of acute rheumatism, and had had pains ever since in the joints, back and abdomen, especially in the right hypochondriac region, where the pain was most intense. The extremely high temperature continued for several days, the above being the highest point reached. The pulse during the same period ran up to 140 or more, being at the time of maximum temperature 120. Five thermometers were used and one of these was afterwards verified by examination. Friction of the arm, as a possible source of increased heat was excluded by the absence of any appreciable movement on the part of the patient.—*Maryland Med. Journal.*

TREATMENT OF ASTHMA BY IODIDE OF POTASSIUM SPRAY.—Dr. Eurard, of Orsennes, has obtained very satisfactory results, in a severe case of asthma, from the use of a spray of iodide of potassium. The patient, a man thirty years of age, had suffered for eight months from daily attacks of asthma, and had also been subject to chronic bronchitis for five years. At the time the treatment was begun he had three or four attacks a day, and was reduced to a pitiable condition. After assiduous use of the spray for eight days the asthmatic attacks had almost entirely ceased. Eighteen

months have elapsed since then, but the patient continues to use the spray, and the attacks have not recurred. The strength of the solution used was one to twenty. The periods of inhalation were short, but frequently repeated.—*Boston Jour. of Chemistry.*

THE METRIC SYSTEM IN MEDICINE:—

OLD STYLE.	METRIC. Gms.
mi. or gr. i. equals	.06
ʒi. or ℥i. equals	4
ʒi. or ℥i. equals	32

The decimal *line* instead of *points* makes errors impossible.

As .06 (Drug) is less than a grain, while 4. and 32. (Vehicle) are more than the drachm and ounce, there is no danger of giving too large doses of strong drugs.

C. C. used for Gms. causes an error of 5 per cent. [excess].

A teaspoon is 4 Gms.; a tablespoon 20 Gms.

TREATMENT OF DEEP SINUSES BY VILLATE'S MIXTURE.—Several deep sinuses have recently been under treatment in the surgical service in which no necrosed bone could be found, but which proved intractable to heal. Villate's mixture was tried, first of half strength, then of full strength. In some of the cases it proved of value, in others it failed partially or completely. The case in which it proved of most service was one of deep sinus in the neighborhood of the hip joint. The original composition of the mixture was:

R.	Liq. plumbi subacet . . .	℥j
	Zinci sulph. cryst . . .	
	Cupri sulph. cryst	ää ʒ ss
	Aceti vini albi	fl. ʒ vjss.

The mixture was injected once a day, and proved a more satisfactory application than any other. Some patients complained of severe pain, others felt but slight inconvenience from it.

ACCORDING to *Harper's Weekly*, the members of the New York Medical Club were invited to an entertainment, a few years ago, by Dr. H. D. Paine, of that city, in the following terms:

"SCIENS, SOCIALITE, SOBRIETE."

DOCTORES,—Ducum nex mundi nitu Panes; tritucum at ait. Expecto meta fumen tu te & eta beta pi. Super attento, uno. Dux, hamor clam pati, sum parates, homine, ices, jam, etc. Sideror hoc. Auser.

"FESTO REASONAN FLOAS SOLE."

Mr. Croft, of St. Thomas's Hospital, has been appointed Examiner in Surgery at the Royal College of Physicians, London.

SUCCESS OF ANTISEPTIC SURGERY.—Professor Volkmann of Halle relates (*Sammlung Klin Vortrage*, 117-118) a series of seventy-five compound fractures treated during four years by conservation under Lister's antiseptic method without the loss of one patient. The result is the more remarkable, that the fractures were in many cases into joints. In all cases, the skin was shaved, soaped, washed, and cleansed with carbolic acid; extensive effusions were incised and drained; the wounds were enlarged with the bistoury, so that every corner could be cleansed with the carbolised stream of water; splinters were removed; sharp points were taken off; and a large drainage-tube was introduced down to the bone, but not between the fractured ends. The dressings were applied under the spray, and were at first changed every twenty-four or forty-eight hours, afterwards at longer intervals. —*Brit. Med. Jour.*

CHARITY FOR ERRORS IN DIAGNOSIS.—Prof. D. Hayes Agnew, in his address before the Pennsylvania Medical Society, closes with the following beautiful words:

There are some persons who never commit errors, or, committing them, never have the magnanimity to acknowledge that they were deceived. I confess that I am humbled every year in making errors in diagnosis. Like Lucretius, I sink the lead over and over again and find no bottom. Indeed, I know I shall never attain to such an imperial rank of wisdom that disease will surrender all its secrets at my bidding. I shall make mistakes as long as I am in the flesh. There never was but one physician who knew all the truth, and He was divine.

With what tenderness does nature conceal her unsightly deformities by the interla ing tendrils of ivy or rhus, which she so ingeniously spreads over the smitten tree or the rugged cliff. Emulating her example, let us over each other's imperfections draw with loving hand the veil of charity.

There are few medical men, we imagine, who were taught in Philadelphia during the last two decades that do not remember with pleasure the lectures of Professor Agnew at the Pennsylvania Hospital. There was so much earnestness, common sense, and honesty in his discourse that Prof. Agnew was a favorite in all the schools.

COLLEGE OF PHYSICIANS, PHILADELPHIA. — Dr. Milner Fothergill and Robert Barnes, of London, have been elected associate members of the College of Physicians of Philadelphia. The number of associate Fellows is limited to twenty. The other British associates are Sir R. Christison, Sir J. Paget, Professor Acland, Drs. J. W. Ogle, Peacock, and Hughlings Jackson.

The Chinese government has issued an edict forbidding, under penalty of severe punishment, the cultivation of opium. Soldiers and officials are strictly prohibited from smoking under heavy penalties.

THERMOMETRY AS A GUIDE IN DETECTING MILIARY TUBERCLE.—It is stated in *Il Morgagni* that the "inverse" type of the body temperature, that is to say, a high degree in the morning and a lower one at night, is a symptom of great clinical value in the diagnosis of military tuberculosis, either acute or consecutive to caseous pneumonia. Out of seventy-one subjects dead from phthisis, Prof. Prunniche has noted this type of temperature in the proportion of 63 per cent.

In the subjects who had succumbed to caseous pneumonia without miliary tubercules the proportion was 25 per cent., while in the caseous pneumonias with miliary tubercules the proportion rose to 85 per cent.—*Med. and Surg. Reporter.*

ORIGIN OF DIPHTHERIA.—Diphtheria is believed to have originated in Egypt more than 2,000 years ago. It prevailed in Egypt and Asia Minor, to which it extended, during the first 500 years, and hence was early called an Egyptian or Syriac disease. Having invaded Europe, the disease appeared in Rome, A.D. 330, and being akin to the plague, of which it may be a remote modification, having had some origin with some similar characteristics, and being like it and malignant typhus, highly contagious, the disease, in its 1,500 years' transit on the continent of Europe, affected mainly rural districts and garrisoned towns. It had extended to Holland, in which it was epidemic, in 1337; to Paris in 1576, and appeared in 1771, having prevailed more extensively in France in 1818 and 1835, and in England, the United States and Canada from 1856 to 1860, and more or less since.

LIQUOR SANTAL FLAVA CUM BUCHU ET CUBEBA.—This preparation appears likely to become a favorite prescription in cases of gonorrhœa and gleet. It contains three remedies of proved utility in these diseases, the santal oil especially having a very extraordinary power to arrest certain cases of gleet. Experience has shown this preparation to possess the same efficacy as the santal oil itself. It mixes perfectly with water and has a taste by no means disagreeable, in which particular it contrasts very favorably with the ordinary mixtures it is intended to replace.—*Cincinnati Lancet and Clinic.*

A MILK TEST.—A German paper gives a test for watered milk, which is simplicity itself. A well-polished knitting needle is dipped into a deep vessel of milk, and immediately withdrawn in an upright position. If the sample is pure, some of the fluid will hang to the needle, but if water has been added to the milk, even in small proportions, the fluid will not adhere to the needle.

The *American Medical Bi-Weekly*: (1.) Practical success in life depends more upon physical health than is generally supposed (2.) The success of local professional men depends in no slight degree on their physical health. (3.) The greatness of our great men is quite as much a bodily as a mental one.

THE SYMPTOM OF TENDON REFLEX IN LOCOMOTOR ATAXIA.—Westphal and Erb have described two forms of reflex tendinous phenomena as occurring in the early stage of locomotor ataxia. Thus if in a healthy person the ligamentum patellæ of the loosely hanging leg, or the tendon of the quadriceps femoris, be struck a smart blow with the side of the hand a more or less violent kick will follow, while if the tendon of Achilles be struck in the same manner the heel will be raised. In locomotor ataxia it is claimed that these phenomena are absent. Dr. A. M. Hamilton (*Boston Med. Jour.*, Dec. 27, '78,) reports eight cases of this disease. In these cases one half present this symptom, but in the other half the tendon reflex is not only present, but in some cases markedly increased. Thus it would appear that this symptom is of less value than has been claimed. But when it is present coupled with the so-called lightning pains, plantar anæsthesia and dimness of vision, it has great force, even in view of Dr. Hamilton's observations.—*Detroit Lancet.*

PROPYLAMINE IN CHOREA.—(*Le Mouvement Medical. Med. Record*, Nov. 30, 1878.) Dr. Parkhauser recommends propylamine as a prompt and effective remedy for chorea. He claims that it effects a cure in three or four days; relapses are cured in one or two days. He gives it in doses of from 25 to 19 grains per diem. This quantity is dissolved in four ounces of water and one ounce of syrup, and a spoonful is given every hour. In his hands, three or four grammes, administered in as many days, have invariably produced a complete cure.

TREPHINING IN EPILEPSY.—Prof. D. Hayes Agnew (*Philadelphia Medical Times*) reports a case of epilepsy following an injury of the parietal bone by a fragment of shell in 1863. A few months since, when the patient entered the university hospital, Prof. Agnew removed a portion of the bone, and found an exfoliation on the inner table which pressed on the brain. There was no return of the convulsions and the man was perfectly cured. This is the second case of trephining for epilepsy by Dr. Agnew with the same favorable result.

INJECTING A TUMOR WITH MORPHIA BEFORE EXTIRPATION.—Half a grain of Sulph. Morph. with a thirty-sixth of a grain of Sulph. atropiæ, was injected in a fibrous tumor on the upper arm weighing about a pound, and its removal accomplished without pain. The case was reported to the North Carolina Medical Society by Dr. Foote, its late president. A second case was mentioned with the same result. In both instances sleep came on only after several hours.—*Pacific Med. Journal.*

THE CANADA LANCET.

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TORONTO, FEB. 1, 1879.

ENUCLEATION OF THE UTERUS.

Before proceeding to discuss this operation, we desire to correct an error inadvertently committed in our review of the history of medical science of the past year, in announcing as a novelty a recent enucleation of the uterus per vaginam by Professor Lane, of the Medical College of the Pacific. The long period of time that has elapsed since the operation was first successfully performed, (over fifty years ago) may, perhaps, be fairly urged as an excuse for the oversight. In the present day there is such a flood of novelties in every branch of the profession, chronicled in American, English and Foreign Journals, that there is sometimes a difficulty in at once recognizing that the true is not new, or the new not true. To accord the meed of praise to the real originators of this operation, we must go back to the early part of the present century.

Velpeau has collected twenty-one instances of removal in twenty years, but not one of them proving to be permanent cures, principally, we apprehend, in consequence of a want of sufficient care in determining whether the disease had left the pelvic glands, rectum, bladder and ovaries, free from its ravages. Dr. Blundell has four cases on record; three died before they had recovered from the effects of the operation, and the fourth within twelve or fifteen months. Madame Boivin remarks that out of nineteen cases, most of them died on the second, or on the third day at the latest, some in a few hours, or even in a few moments after the extirpation. Concerning Dr. Blundell's fourth case, Dr. Ashwell remarks: "The preparation of the rectum and bladder in the last example now in Guy's Museum, shows how ably and safely the operation was completed, and how well the parts cicatrized, but it also proves how difficult and nearly impossible it is, to form an accurate estimate of the extent of the malady, and the risk of its return. Although the diseased viscus was wholly taken away, the rectum became the seat of malignant disease, and the patient died in the Hospital from invincible constipation." The following is Dr. Blundell's account of the operation, abridged. Mrs. Moulden, aged 50, mother of several children, was pronounced, on examination, to have cancer of the womb. The upper part of the vagina was also involved, but, on the most careful examination, no disease of the other adjacent organs could be discovered. The bowels having been cleared, and the patient resolved to submit to the operation, on the 19th of February, 1828, I determined to remove the diseased parts without delay. For this purpose, having placed the woman on the left side, close upon the edge of the bed, with the loins posteriorly, the shoulders advanced, the knees and bosom mutually approximated, and the abdomen directed a little downwards towards the bed, I began the operation. I commenced by passing the index and second finger of the left hand to the line of union between the indurated and healthy portions of the vagina, and then, by taking the stem knife in my right hand, I could at pleasure lay the flat of the blade upon the point of these fingers, and urge the point of the instrument a little beyond the tip. The apex of the forefinger being in this manner converted into a cutting point, by little and little, I gradually worked my way through the back of the vagina towards the front of the rectum, so as to enter the recto-vaginal portion of the peritoneal cavity. A small opening having been formed in this manner at the back part of the vagina, the first joint of the forefinger was passed, so as to enlarge it a little by dilatation and slight laceration. This done, I proceeded to make an incision transversely, that is from hip to hip; for this purpose carrying the finger with its cutting edge from the opening in the vagina already made, to the root of the broad ligament on the left side, so as to make one large aperture. I then took a second stem scalpel, having the cutting edge on the opposite side of the blade, and, from the middle of the vagina where the former incision commenced, I carried the incision to the root of the broad ligament

on the right side, so that the diseased and healthy portions of the vagina behind became completely detached from each other. The back of the vagina having been divided in this manner, I introduced the left hand into the vagina, passing the first and second fingers through the transverse opening along the back of the uterus Then, taking a blunt hook, mounted on a stem eleven inches long, I passed it into the abdominal cavity through the transverse opening, and with little pain to the patient, pushed it into the back of the womb near the fundus, and then drawing the womb downwards, and backwards towards the point of the os coccygis, as I carried the fingers upwards and forwards, I succeeded ultimately in placing the tips over the fundus in the manner of a blunt hook, after which, by a retroversion, the womb was very speedily brought downwards and backwards into the palm of the left hand, then lodging in the vagina, where at this part of the operation the diseased part might be seen distinctly enough, lying just within the genital fissure. The process of removal brought to this point, the diseased structure remained in connexion with the sides of the pelvis by means of the Fallopian tubes and broad ligaments, and with the bladder by means of the peritoneum, the front of the vagina and the interposed cellular tissues, parts which were easily divided, so as to liberate the mass to be removed. The broad ligaments were cut through, close to the uterus, and in dividing the vagina, great care was taken to keep clear of the neck of the bladder and of the uterus. The operation was facilitated by previous child-bearing. Not more than five ounces of blood were lost during the operation, the greater part coming away when the diseased structure was detatched from the bladder and vagina in front. The intestines approached the aperture but did not protrude; after the operation the sides of the vagina collapsed and the aperture above seemed to be covered by a retroversion of the bladder.

In modern times, Pean of Paris, Storer of Boston, Cutter of Newwark, Wood of Cincinnati, Hackenburg of Hudson, Atlee of Philadelphia, Weber of Cleveland, Gaillard Thomas of New York, Trenholme of Montreal, and others, have removed the uterus and appendages by gastrotomy. Recoveries, however, are the exception. Of twelve operations recorded in Dr. Thomas's work on female diseases, there were eleven deaths. We would call the attention of our readers to the position Dr. Blundell placed his patient in, as prefiguring the views of Dr. Marion Sims on this subject.

STATISTICS OF PUERPERAL FEVER.

In the *Revista Medico-Quirurgica* of Buenos Aires, of 8th October, 1878, there appears a very interesting memorial, presented to the Medical Association of that city, by Dr. E. R. Coni, the able editor-in-chief of the above named excellent periodical. Dr. Coni observes that in comparison with twenty-seven of the most populous cities of Europe and America, Buenos Aires holds a rather gratifying rank, since the majority of those exhibit in their statistics a mortality from puerperal affections larger than that which has obtained in his own city. But he adds, "unfortunately we cannot affirm the like of the maternity department of our General Hospital for Women, which figures as one of the most deadly." Dr. Coni shows that in 10 years, from 1858 to 1867 inclusive, 150 deaths from puerperal affections took place in Buenos Aires; and in the succeeding 10 years, 317 deaths resulted. The proportionate mortality in the above two decades, Dr. Coni regards as not unequal, when compared with the augmented population of the latter period;—(say 110,000 and 220,000, respectively.)

The following statistics show the average annual mortality, from puerperal diseases, in large towns:—*Vienna* (670,183), 1258 deaths in 10 years, 1865-74; annual average 125. *Prague* (165,526), 2,260 deaths in 10 years, 1865-74; annual average 226. This excessive mortality, seven times greater than that of Buenos Aires, which has a larger population, is explained by the fact that Prague has a great maternity, which has been scourged by terrible epidemics of puerperal fever. The mortality now obtaining is considerably less. *Triest.* (123,098), 198 deaths in 10 years, 65-74, or annual average 19, a mortality, in respect to population, about equal to Buenos Aires. *Munich* (193,326), 133 deaths in 10 years, 66-75. *Leipzig* (124,797), 137 in 4 years, 72-75. *Turin* (212,644), 703 in 10 years, 65-74, or more than twice the average of Buenos Aires; both cities being almost equal in population. *Boston* (250,526), 562 in 9 years,

64-72. *Stockholm* (150, 446), 510 in 10 years, 64-73. *Amberes* (156,671), 238 in 7 years, 68-74. *Berlin* (968,634), 1,030 in 5 years, 69-73. *Cologne* (129,865), 231 in 10 years, 65-74. *Paris* (1,851,792), 1,647 in 4 years, 72-75. *London* (3,489,428), 2,250 in 4 years, 70-73.

Dr. Coni offers the following remarks on the preceding statistics: "We deduce from the above data, that of the great cities mentioned, 9 show a mortality from puerperal diseases, greater, in proportion to the population, than that of Buenos Aires. These cities are Vienna, Prague, Munich, Leipzig, Amberes, Berlin, Cologne, Paris and London."

The following statement is fearfully startling, and should command the serious consideration of all projectors and managers of maternity hospitals. "Comparing the puerperal mortality with that of the city at large, whilst the latter was 4 per 1000, that of the maternity was 80 per 1000. Dr. Parodi, treating of puerperal fever, tells us that from 1870 to 1879, 62 women were attacked, of whom 30 died. In 1872 and 1874, puerperal fevers of an epidemic character re-visited the maternity; in the months of September and October 1874, 19 parturients were affected, of whom 15 died. With good reason, Hespain, at the Congress of Hygiene at Brussels, uttered the following words: 'In reality, gentlemen, to locate maternity hospitals in the centre of cities; in parts thickly populated; in the vicinity of dangerous and prejudicial establishments;—to connect them as integrant parts, or as accessories of general hospitals,—what is this but placing in an already vitiated atmosphere, unfortunate parturients, whose bodies exhale additional impurities? That these women should be visited and touched by students who frequent dissecting rooms, dress wounds, and frequent wards occupied by infectious cases (unless the greatest care be exercised); that they should be placed in contact with infirmary nurses, or others who move through the hospitals, or attend special clinics;—is not this to expose them to all the dangers of direct contagion? To receive these patients into a maternity in which the epidemic exists, or from which it has only recently withdrawn,—is not this to hand them over to the terrible consequences of infection?'"

The following opinion expressed on the subject of lying-in hospitals, by Dr. Magdell, of St. Petersburg, deserves serious consideration: "What is truly necessary for a maternity, is not a grand structure; is not an accumulation of parturient women. It is, on the contrary, to distribute the puerperals over the extensive territory of the city; to establish small asylums, especially in the districts of the poor. The result will then be the same as we have realized in St. Petersburg."

The above statistics show that the strictest care and the most constant vigilance should be exercised by those who have the responsibility of the management of maternity hospitals. Only those women who have no homes of their own should be received into a maternity, so that it may never be overcrowded, and the practice of having the poorer classes attended in their own homes should be encouraged. In Toronto and other places in Canada, only the 3rd and 4th year students, or those who have completed their dissections, are admitted to the practice of the maternity.

NEW REMEDIES.—In the *Pacific Medical and Surgical Journal*, for October, 1878, there appears an article by Dr. Gibbons reflecting on the merits of certain New Remedies introduced by Dr. Bundy through the house of Parke, Davis & Co, of Detroit, Mich. Dr. Gibbon's charges appear to be —that the remedies were "pretended," introduced under fictitious Spanish names, and that if Dr. Bundy introduced them they were unworthy of notice because he was an eclectic. These statements were taken advantage of by parties desirous of injuring the sale of the new remedies. In the December number of the above named Journal, Dr. Gibbons remarks as follows:

"We notice that the article published in our October number, from the pen of Dr. W. P. Gibbons referring to certain "new remedies," so called of California origin, has been misrepresented in some quarters as denying medicinal virtue to the plants in question. This was not its design, nor did the therapeutic value of the remedies enter into consideration. The object was to expose the deception of introducing preparations of old remedies under new names, and claiming originality without deserving it. Several of the plants in question are really valuable.

Whilst on the subject, we will correct an error in spelling. Cascara (bark) sagrada (sacred) is the common Spanish name of the Rhamnus Purshiana,

and means simply *sacred bark*. The adjective should end *a* and not in *o*, as it is commonly spelled. The old Spanish or Mexican population of the coast had a number of medicinal herbs which they employed in default of officinal plants. Not knowing the botanical names, common names were given, indicating their supposed good qualities. "Yerba Sana" was holy herb; "Yerba Buena" good herb, and so on."

The house of Parke, Davis & Co., of Detroit is too well known to require any endorsation from us, and we are quite certain that no one would suspect them of knowingly introducing any remedies, new or old that were not genuine.

ARTIFICIAL INCUBATION.—A gentleman in Montreal has recently imported from Paris, at considerable expense, an apparatus for the artificial incubation of eggs. It consists of a box, the upper part of which contains a cistern filled with boiling water, and underneath this a drawer for the eggs, with a thermometer. The depth of water in the tank is shown by a water gauge outside, and this is drawn off and replaced gradually by heated water. In ten days the process of germination has been established in the eggs, and a great amount of latent heat is evolved, which lessens the amount required to be generated by the incubator. In three weeks the work is perfected, as in the ordinary way, nature having been copied in every particular, even to allowing the eggs to remain exposed a certain space of time, as is the habit of the hen, when in search of food or water, the daily turning of the eggs as is done also by the mother, &c., &c. The result is a successful issue of the whole brood. Then begins the feeding process, none the less difficuli in detail, but by copying nature made easy. We refer to this not because of its novelty, but because of the scientific interest which attaches to it, although as our friend sagely remarked: "*Art* may develop Nature's germs, yet it required Nature herself to produce them," so that the hen will still be indispensable.

GERMAN MEDICAL STUDENTS.—The following statement of the number of medical students attending universitias in which the German language is used by the teachers, is taken from the calendars of the summer half year of 1878, as given in the columns of the *Médicinische Wochenshrift*, of 26th of Oct. 1878.

Vienna 658; Wurzburg 475; Munchen 456; Dospat 387; Berlin 346; Leipsic 335; Greifswald 233; Zurich 184; Freiburg 181; Breslau 178; Strasburg 168; Tubengen 164; Goaz 161; Bourne 154; Bern 137; Konigsbay 135; Volangen 132; Halle 117; Gottengen 115; Marburg 110; Girrssen 108; Heidelberg 103; Kiel 92; Jena 87; Basel 70; Rastock 39; total 5,324. It is pretty evident from the above figures, that Germany is in no present danger from thinness in the ranks of the medical profession; and there is little ground for the hope that the surplus products of American colleges would meet with a paying market beyond the Rhine. Could we feel assured that both in European and American medical schools, the education given was as complete as the dignity of the profession should exact, we might not apprehend any unfortunate results from plethora; but we fear that honourable competion must thrive badly in any walk in life in which three or four men are doomed to live on the profits of one.

AN ANTIDOTE TO POISONING BY PHOSPHORUS.—A successful antidote to poisoning by phosphorus has been recently discovered by two French physicians. The remedy consists in the slow and gradual injection of oxygen into the veins. The *modus operandi* is as follows. Phosphorus has a great affinity for oxygen, and accordingly when absorbed into the system, its injurious effect is due to the fact that it unites with the oxygen in the tissues, thus producing dangerous or fatal symptoms. Accordingly by the introduction of oxygen into the veins, the phosphorus is thus oxidized, and prevented from robbing the blood corpuscles of their oxygen, which would otherwise be the inevitable result. The operation of injecting the oxygen being inexpensive and presenting no difficulty to the medical practitioner, we may expect to see this remedial method generally adopted in cases of poisoning by phosphorus.

THE BRITISH MEDICAL SERVICE.—The Medical Department of the Royal Navy has been for some time past very unpopular in Great Britain, and as there is a scarcity of applicants for the vacant situations, it is expected that tempting offers will be made to Colonial medical men to enter the service. A writer in the *Hamilton Times* who signs himself "A Retired Medical Officer" cautions

Canadian students to beware of any tempting offers emanating from the department of the Medical Director General of the Navy. The unpopularity of this service is owing to the "one man" system of government. The head of the department, Sir Alexander Armstrong is an Irishman, and whether justly or unjustly, he is charged with being very partial to his own countrymen. Those therefore who can claim some Irish-blood are certain to fare better than those who cannot.

MEDICAL LEGISLATION.—The members of the profession in the Maritime Provinces are considering the propriety of making some effort towards medical legislation similar to, or better if possible, than that now in force in Ontario. They are becoming tired of free-trade in medicine, and are now beginning to wake up to the prospective benefits of protection. We shall be very glad to see their efforts crowned with success. All that we shall say at present is that the Ontario Medical Act has done great service to the cause of medical education, and has also diminished to a great extent the evils of quackery; but that it did not accomplish more in the latter direction was no fault of the Act itself.

SANITARY PROTECTION ASSOCIATION.—A Sanitary Protection Association has been recently formed in Newport, R.I. The objects of the Association, based upon that recently found so successful at Edinburgh, and the first of the kind so far as known, as yet established on this continent, are as follows:—1. To provide its members, at moderate cost, with such advice and supervision as shall insure the proper sanitary condition of their own dwellings. 2. To enable members to procure practical advice, on moderate terms, as to the best means of remedying defects in houses of the poorer class in which they are interested. 3. To aid in improving the sanitary condition, and consequent good repute of the city, by following such course as, in the opinion of the Council, may seem calculated to promote this object.

PHARMACEUTICAL PREPARATIONS.—We desire to call the attention of the profession to the pharmaceutical preparations of Messrs. H. Sugden Evans & Co., of Montreal. They manufacture a large number of preparations that are in constant use by the profession, and of a thoroughly reliable character. Their drugs are all first quality, and the utmost care is exercised in their preparation. As a Canadian house we feel a just pride in alluding to their enterprise.

TREATMENT OF DIPHTHERIA.—In the *Med.-Chir. Contrablatt*, No. 22, Prof. Klebs, of Prague, describes a series of experiments performed on himself and others with a view of testing the efficacy of benzoate of soda in destroying the microscopic fungi present in diphtheria. Diphtheritic membranes were soaked in a solution of benzoate of soda, and afterwards inoculated upon the surface of several healthy animals, but it had no effect. In other animals inoculated with the diphtheritic fungus, the injection of a solution of benzoate of soda destroyed the diphtheritic membrane in ten minutes. Klebs gave benzoate of soda in five gramme (75 grs.) doses without any unpleasant effects.

MALTINE.—This new substance is attracting the attention of physicians in England and the United States. It consists of the concentrated extract of malted barley, wheat and oats, and contains in an eminent degree, those principles which are necessary to repair the waste, and maintain the heat of the system. It has been found of great service in the treatment of general debility, indigestion, and wasting diseases of children. It contains no alcohol, and is very palatable and agreeable to the stomach.

IMPROVEMENTS.—We are pleased to observe that our highly esteemed cotemporaries *The British Medical Journal* and *The Medical Times and Gazette* are trimmed at the margins, so that the reader is no longer under the necessity of spending a quarter of an hour with the paper knife before he can see the contents. The *London Lancet* we hope will follow suit.

VACCINE ESTABLISHMENT NEAR MONTREAL.—Dr. Bessey of Montreal still continues the propagation of cow-pox virus—by vaccination from heifer to heifer—on the Logan farm, near Montreal. Only young animals are selected for this purpose. On the above farm are about thirty animals which have had the cow-pox within the past six months. No injury results to them from the infection.

THE LATE DR. MEILLEUR.—Dr. Meilleur, whose death is noticed in another place, was a disting-

uished French Canadian. He was educated in Montreal, and entered upon the profession of law, which he abandoned for that of medicine. In 1834 he was elected to Parliament, and was instrumental in establishing a department of education, to which he was appointed first superintendent, and continued in office from 1842 to 1855. Dr. Meilleur was also a writer of considerable merit. He was the author of a treatise on chemistry, an abridgment of grammar, a work on epistolary composition, a memorial on education, &c. His portrait appears in the *Canadian Illustrated News* of Jan. 4th, 1879.

THE PLAGUE.—The *Weiner Medicinische Wochenschrift*, of a late issue says the plague is spreading with terrible rapidity in Russia, and that it is now almost too late to attempt to stay its progress. The prominent symptoms of the disease are headache, fever, and swellings of the glands. There is also said to be a scarcity of medical men—so many died either during the late war, or from the typhoid epidemic which followed it. The Austrian and German Governments are using active measures to prevent the incursion of the disease into their respective countries.

DENTISTRY.—Mr. A. Preterre, the surgeon dentist of 29 Boul. des Italiens Paris, so well known to all medical practitioners by his brilliant works on dental practice, and his apparatuses for palatine restorations, &c., has obtained at the Universal Exhibition of Paris, the sole gold medal awarded to dentists.

"DR. MILLINGEN, who attended Lord Byron during his last illness at Missolonghi, died at Constantinople on the 1st of Dec., 1878, at the age of 78."

NEW AND POWERFUL OBJECTIVE.—Mr. Tolles of Boston has recently perfected a lens of $\frac{1}{75}$ objective. The power is about 7.500 diameters, and costs $400.

APPOINTMENTS.—Dr. Kennedy, formerly of Dundas, is stationed at Fort McLeod, Manitoba. Dr. Walkem has been appointed Inspector of Penitentiaries in British Columbia.

REMOVAL.—Dr. Tunstall, of Papineauville, Que. has removed to Montreal.

Sir William Jenner has retired from the position of Professor of Morbid Anatomy which he has filled at University College, London, for nearly thirty years.

CORONERS.—R. Tracy, M.D., of Belleville, to be an Associate Coroner for the County of Hastings. D. McLarty, M.D., of St. Thomas, to be an Associate Coroner for the County of Elgin.

Reports of Societies.

COUNTY OF OXFORD MEDICAL ASSOCIATION.

The first quarterly meeting of this Association was held in Woodstock on the 9th ult. Dr. Turquand president, in the chair.

Members present were Drs. Bowers, Williams, McKay, Hoyt and Scott, of Ingersoll, Drs. Turquand, McKay, Swan, McLay, Hill, and Millman, of Woodstock, Dr. Clement of Innerkip, and Dr. Secord of Bright. Among the visitors present were Dr. Bucke, Superintendent of the Asylum for Insane, London; Dr. Clark, Superintendent of the Asylum for Insane, Toronto; and Drs. Burt and Sinclair, of Paris.

The minutes of the last meeting were read and confirmed.

Very interesting papers were then read by Dr. A. McKay, of Ingersoll, on "Pleuritic Effusions"; and on "Functional Diseases of the Spinal Cord," by Dr. H. M. McKay, of Woodstock. Both papers elicited lively and instructive discussion, the visiting gentlemen, as well as the members, taking an active part, and citing some very interesting and varied cases.

The retiring President, Dr. Turquand, then addressed the Association as follows:

GENTLEMEN,—It is with much pleasure I now address you, as is customary on such occasions as the present. I am glad of the opportunity of assuring you of my grateful and kindly feelings towards the members of this Association, and of my zealous interest in its objects and welfare. I believe that notwithstanding the whisperings of discontent, the murmurings of disappointment, and the predictions of failure, of which we have occasionally been made aware, we may look forward hopefully to our future. I look upon this Association not so much as one for mutual improvement (professionally), as one of a social character, drawing together the medical practitioners from the various sections of the county for the kindly interchange of thought and sentiment. I feel convinced

that as we know each other better we shall learn to appreciate each other's good qualities, and feel more interest in each other's welfare. Our meeting together from time to time in this manner tends to soften down asperities, to rub off, as it were, the rough edges of our nature, promotes harmony and good feeling amongst us, and prompts us to aid and support each other in the cares, anxieties and disappointments we have to endure, and in the various trials and difficulties with which we have to contend in the daily discharge of our professional duties.

We belong, gentlemen, to a noble profession, the most generous and most unselfish of all professions or callings. I honestly believe that nothing would do more to unite us in friendly intercourse than the adoption and strict observance of a code of medical ethics—that of the "Canada Medical Association" is claimed to be "founded on the great principles of truth, justice and honor," and I would add those of "morality and virtue," in their application to the "relations of physicians with one another, their patients and the public at large."

Professor G. B. Wood, in commending the code of the American Medical Association, says:—"It is the voice of wisdom and experience speaking from the past, and meets a ready response in the breast of every man possessed of a good heart, a sound judgment and correct moral principle. Should any one find a repugnance to the observance of its rules rising up within him, let him for a moment reflect whether this may not spring from some evil source in himself; whether it may not be the result rather of an unwillingness to make what he may deem a sacrifice at their suggestion than a real conviction of their injustice or impropriety. Which is more likely to be true—the unbiased and unselfish judgment of the wisest and most experienced in the profession, or an individual decision which may at least be suspected of a selfish basis, and of which no man, if his interests or feelings are in any degree involved, can say it is quite pure? For no man can judge impartially in his own case. A becoming modesty would lead him to suspect that the fault might be in himself, and a becoming spirit to search into the secrets of his own heart for the root of the evil, and to pluck it out if discovered." Professor Wood goes on to say:—"I have no doubt that a full, faithful and honest observance of these rules would do more than any one thing else to maintain harmony in the profession and to elevate it in public esteem. It would render impossible those unseemly disputes founded on petty jealousies and supposed opposition of interests which, probably, beyond any other single cause, exposes the profession to obloquy and ridicule."

I trust this meeting will adopt the rules of the Canada Medical Association in their entirety, and that they will become henceforth the uncompromising guide to our professional life.

The Code of Ethics of the Canada Medical Association was adopted without any amendment.

The following officers were elected for the ensuing year:—President, Dr. Williams, of Ingersoll; 1st Vice-President, Dr. Swan, of Woodstock; 2nd Vice-President, Dr. Clement, of Innerkip, Sec.-Treas., Dr. Millman, of Woodstock. The President elect took the chair.

After a very cordial vote of thanks to the President and the visiting gentlemen, the Association adjourned to meet at Ingersoll in April next.

Dr. Bucke extended to the members of the Oxford Medical Association a cordial invitation to attend the meeting of the Dominion Association in London in September next.

Books and Pamphlets.

THE SCIENCE AND PRACTICE OF SURGERY, by F. J. Gant, F.R.C.S., Surgeon to Royal Free Hospital, London, Eng. Second edition in two volumes. London: Bailliere, Tindall & Cox. Toronto: Willing & Williamson.

The second edition of this work on surgery by Dr. Gant has been so much enlarged and rewritten that it may be considered almost a new work. The work is divided into two parts: I. General Pathology and Surgery; II. Special Pathology and Surgery. The chapter on inflammation is a most admirable one. The chapter on the general treatment of fractures is especially good. The author gives in a practical manner the features of each variety, and then follows the general plan of treatment. His description of the application of the starch bandage is not as complete as it might be. He uses short splints of pasteboard around the seat of fracture, instead of as usual carrying the splints to the joints above and below the fracture. The subject of excisions is discussed very fully, as are also amputations. The author takes more pains than is usual among surgeons to point out the kind of artificial limb to be adapted to the stump after amputation. The work shows evidence on every page, of careful and laborious work, and cannot fail to be a useful guide to the practical surgeon.

THE POPULAR SCIENCE MONTHLY,—By E. L. and W. J. Youmans. New York: D. Appleton & Co.

The *Popular Science Monthly* is now a large octavo of 128 pages, and will be considerably en-

larged, beginning with the issue for January, 1879. It is handsomely printed on clear type, and, when necessary to further convey the ideas of the writer, fully illustrated. It contains accounts of important scientific discoveries; the application of science to the practical arts; the latest views put forth concerning natural phenomena, by *savants* of the highest authority. It is an instructive and valuable monthly, and, as a consequence, is continually increasing in circulation and influence. See our commutation rates.

THE PRINCIPLES AND PRACTICE OF SURGERY. By D. Hayes Angew, M. D., LL. D., Prof. of Surgery in the University of Pennsylvania. Illustrated. In two volumes. Vol. I. Pp. 1062. Philadelphia: J. B. Lippincott & Co. Toronto: Willing & Williamson.

The author has been a successful teacher of surgery for the last twenty-five years, and no one is better qualified for the task of writing such a work as the volume before us. The first volume and the only one yet issued, deals with "Diagnosis," "Inflammation," "Wounds," "Injuries of the Head," "Injuries of the Chest and Abdomen," "Wounds of the Extremities," "Diseases of the Abdomen," "Diseases of the Blood-vessels," "Ligation of the Arteries," "Surgical Dressings," "Diseases and Injuries of the Osseous System," so that in all probability, vol. No. 2, which is to complete the work, will be equally as large as the present one. The introduction, on "Surgical Diagnosis," is a most admirable article, and will well repay an attentive perusal. The author favors blood-letting in inflammation. The differential diagnosis of hernia is very clearly laid down; the author questions the justifiability of operations for the radical cure of hernia. Some of the illustrations are not as good as might have been expected in a work of the kind. On the whole the work is highly to be commended, and will no doubt be appreciated at its full value by the general profession.

DISEASES OF THE BLADDER AND URETHRA IN WOMEN by Prof. Alex. J. Skene, Long Island College Hospital. New York: Wm. Wood & Co. Toronto: Willing and Williamson.

The above work consisting of eight lectures delivered in the college class-room, with the addition of material collected from articles of various authors on the subject, will be found by students and practitioners a valuable manual on the ailments treated, which are far more numerous than would generally be imagined, e. g., malformations of the urethra and bladder, functional derangements, irritability, paresis, ischuria and enuresis, anomalies of position, extroversion through urethra, organic diseases, urinary analysis and exploration, hyperæmia, hæmorrhage, cystitis, acute, chronic, catarrhal, croupous and diphtheritic. Etiology, pathology, symptoms and treatment. Neoplasms, cysts, tubercles and carcinoma, foreign bodies, vesico-urethral fissure, hypertrophy and atrophy. Diseases of the urethra, neurosee, vascular tumors, dilations and dislocations of urethra, prolapse of mucous membrane, foreign bodies, &c., &c. In addition to the sterling practical matter in which this work abounds, we have the advantage of illustrations admirably executed, particularly in the chapter on urinary analysis. The author has evidently striven to render the subjects interesting both to his auditors and readers; his style is perspicuous, the didactic merged into the colloquial, without repetitions. The volume contains 360 pages, printed in bold, clear type, neatly bound in cloth. We can recommend it as a most comprehensive work on the subject.

CONTRIBUTIONS TO OPERATIVE SURGERY AND Surgical Pathology. By J. M. Carnochan, M.D., New York: Harper Bros. Toronto: Willing & Williamson.

We have received parts IV and V in continuation of this work, of which the former parts have already been noticed in our columns. The subjects treated of in that now before us are "Shock and Collapse" and the "Primary treatment of Injuries." The author discusses these subjects in a most exhaustive manner, and presents many valuable suggestions. The work is well executed, in quarto form, and published in quarterly numbers. Price $1 each.

PRACTICAL SURGERY: Including Surgical Dressings, Bandaging, Ligations and Amputations. By J. Ewing Mears, M.D., Demonstrator of Surgery in Jefferson Medical College, etc., etc. With 227 illustrations. Philadelphia: Lindsay & Blakiston. Toronto: Hart & Rawlinson.

This is a very convenient little work of reference for the student or young practitioner. The illustrations are very good, and the descriptions in the text clear and explicit.

LECTURES ON LOCALIZATION IN DISEASES OF THE BRAIN. By J. M. Charcot, of the Salpetriere Hospital, with 45 plates. New York: William Wood & Co. Toronto: Willing & Williamson.

To the readers of the *Lancet* no commendation from our pen, of any work bearing the name of the illustrious author of the above-mentioned treatise, can be called for, to ensure its welcome reception. *Charcot's* present contribution to the knowledge of *Brain Diseases*, is comprised in twelve concise and highly instructive lectures, which we venture to say will be read with unquestioned profit, by every member of our profession who is anxious to obtain a clear understanding of this department of medical science. Where all is excellent, selection of particulars must be embarrassing; yet we venture to express the opinion that the sixth lecture, on *Arterial Circulation in the Brain*; the 7th and 8th in continuation of this subject; the 9th, on "Isolated lesions of the Gray Ganglia"; the 10th, on "Crossed Amblyopia and Lateral Hemiplegia," will well repay perusal. Nay, indeed, we rather should say, they will repay, and they must require for their full understanding, repeated perusals. The following extract from lecture 8th, we offer as an illustrative specimen.

"Hemiplegia, dependent upon alterations confined to the gray ganglia, is generally transitory, passing, lightly marked, not indelible, and in any case is at first comparatively benign. It is understood that in formulating this proposition, I remove all complications capable of greatly modifying the picture; such, for example, would be the eruption of a hemorrhage, however small, into a ventricular cavity. Grave symptoms, such as *early contractions*, or *epileptiform convulsions*, almost necessarily ensue in such cases, and more or less rapid death is generally the necessary consequence of such complication."

We are very sure that in the rich field of observation presented to *Mons. Charcot* in the *Salpetriere*, he must have encountered a very large proportion of cases presenting "complications capable of greatly modifying the picture" of the "transitory passing, lightly marked, and not indelible 'Hemiplegia," alluded to in the outset of the above paragraph—and we are very doubtful if, in any case of *Hemiplegia*, however apparently trivial in its inception, it would be discreet in the attending physician, to venture on a diagnosis, or prognosis, excluding the incursion, or possibility, of "modifying complications."

CLINICAL DIAGNOSIS: A Hand book for Students and Practitioners of Medicine. Edited by James Finlayson, M.D., Glasgow Western Infirmary, with 85 illustrations. Philadelphia: H. C. Lea. Toronto: Willing & Williamson.

The utility of works on clinical diagnosis cannot be overrated. It is common to find a student or even sometimes a medical practitioner, who fails to apply the knowledge he actually possesses, from a want of the art of examining the patient thoroughly. This work endeavors to give the assistance needed, by supplying carefully selected data in a condensed form, by submitting accurate methods of investigation, and by pointing out probable fallacies, etc. Different portions of the work have been written by different persons. Dr. Samson Gemmell has written the part on "Medical Diagnosis;" Dr. Stephenson "Female Disorders;" Dr. Coats "Diseases of the Throat;" Dr. Robertson "Insanity;" and Dr. Gairdner "Physiognomy of Disease."

THE AMERICAN JOURNAL OF OTOLOGY. A quarterly Journal of Physiological Acoustics and Aural Surgery. Edited by Clarence J. Blake, M. D. Price, $3.00 per annum. New York: W. Wood & Co.

ELEMENTARY QUANTITATIVE ANALYSES. By Alexander Classen, Royal Polytechnic, Aix-la-chapelle, translated by E. F. Smith, A. M., Ph. D., University of Pennsylvania. Philadelphia: H. C. Lea. Toronto: Hart & Rawlinson.

The above work has been adopted as a text-book in the laboratories of nearly all the German Universities. It has also had considerable circulation among practical chemists.

DISEASES OF CHILDREN. By E. Ellis, M. D., of the Victoria Hospital for Sick Children. Third Edition. New York: Wm. Wood & Co.

This is the second volume of Wood's Library of Standard Medical Authors, and is really a marvel of cheapness. It is a 200 page octavo volume, well bound in cloth, and printed on good paper, for the nominal price of $1.00. The work itself is already well and favorably known to the profession as a useful, practical work on the diseases of children.

LEONARD'S PHYSICIANS' POCKET DAY BOOK. Published by C. H. Leonard, M. D., Detroit, Mich. Price $1.00; name in gold-leaf inside, $1.25.

This is a very compact and convenient visiting list. It contains no printed matter, and presents a simple method for keeping a physician's account in such form as to reduce the labor of book-keeping to a minimum.

MANUAL OF PHYSICAL DIAGNOSIS. By Francis Delafield, M. D., and Charles F. Stillman, M. D. New York: Wm. Wood & Co. Toronto: Willing & Williamson.

This manual is intended,as the author says in his preface, for the use of those who have to teach and to learn the art of physical diagnosis. The text is very concise, and contains blank leaves so that it may be used as a note-book as well as a guide. The illustrations consist of a series of superimposed plates, the superior of which represent the exterior of the chest. Successive removals of these plates reveal the structures reached from without inwards, and give a very clear idea of the topography of the parts.

LECTURES ON PHYSIOLOGY. By James T. Whittaker, M. A., M. D., Professor of Physiology and Chemical Lecturer in the Medical College of Ohio, etc. Illustrated; pp. 288. Price, $1.75. Cincinnati: Chancy R. Murry.

This work is intended more as an introduction to the subject of physiology, than as a text-book on the subject. It is writtten in a very interesting and attractive style, and will be of advantage to those commencing the study.

NOTES ON THE TREATMENT OF SKIN DISEASES. By Robert Liveing, A. M., M. D., F. R. C. P., London, Middlesex Hospital. Fourth Edition, revised and enlarged. New York: Wm. Wood & Co. Toronto: Willing & Williamson.

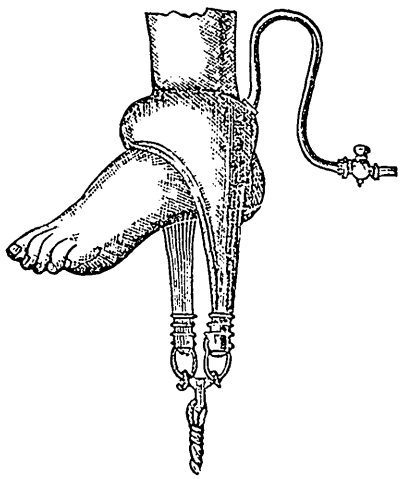
THE JOURNAL OF PHYSIOLOGY,—We have received the first five numbers of this Journal, edited by Michael Foster. The papers, as might be expected, are excellent, and the work will be of value to all who are interested in the study and progress of physiology. It is published by McMillan & Co.

Canadian Illustrated News for Jan. 4th, contains among other things, a very handsome sketch of Bear River, or Hillsburg, N. S., and another of Almonte, Ont.; also portraits of prominent Canadians.

New Instruments.

INDIA RUBBER EXTENSION APPARATUS.

This apparatus as may be seen from the wood-cut, consists of a vulcanized rubber bag which is inflated with air through a rubber tube like a col. peurynter, and retained by turning a stop-cock.



To the lateral appendages of the bag are applied the weights used for the purpose of extension. The apparatus, which is the invention of Dr. Kaufman, was on exhibition at the Paris Exposition. The advantages claimed are simplicity and ease of appliance, but its greatest advantage is the fact that the pressure is exerted equally on the entire circumference of the foot. The appliance is well borne by patients.

Marriages & Deaths.

On the 9th of Dec. 1878, A. S. Campbell, M. D., of Brainerd, Minn., to Miss H. O'Connor, of Ottawa.

On Tuesday, December 31st, J. Saunders, M.D., M.R.C.S, Eng., of Kingston, to Catherine Marion, eldest daughter of A. S. Bristol, M.D., of Napanee.

On the 21st ult., William J. Wilson, Esq., M.D., of Stouffville, Ont., to Miss Mary Ann O'Neill, of Toronto.

In Quebec, in Dec., 1878., Dr. J. B. Meilleur, in the 83rd year of his age.

In Montreal, on the 18th of Dec., J. A. Deloges, M.D., of Pembroke, aged 31 years.

At Berlin, on the 4th ult., J. P. Jackson, M.D., aged 36 years.

*** Notices of Births, Marriages and Deaths are charged fifty cents each, which should be forwarded in postage stamps with the communication.