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THE

CANADA LANCET.

A Monthly Journal of Medical and Surgical Science, Criticism and News.

Vol. VIII No. 6. | TORONTO, FEBRUARY 1, 1876. | Price 30 Cents. $3 per Annum

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CINCHO-QUININE.

CINCHO-QUININE which was placed in the hands of physicians in 1869, has been tested in all parts of the country, and the testimony in its favor is decided and unequivocal. It contains the important constituents of *Peruvian Bark*, Quinia, Quinidia, Cinchonia and Cinchonidia, in their alkaloidal condition, and *no external agents.*

UNIVERSITY OF PENNSYLVANIA, Jan. 22, 1875.

"I have tested CINCHO-QUININE, and have found it to contain *quinine, quinidine, cinchonine,* and *cinchonidine.*"

F. A. GENTH, Prof. of Chemistry and Mineralogy.

LABORATORY OF THH UNIVERSITY OF CHICAGO, February 1, 1875.

"I hereby certify that I have made a chemical examination of the contents of a bottle of CINCHO-QUININE, and by direction I made a qualitative examination for *quinine, quinidine,* and *cinchonine,* and hereby certify that I found these alkaloids in CINCHO-QUININE."

C. GILBERT WHEELER, Professor of Chemistry.

"I have made a careful analysis of the contents of a bottle of your CINCHO-QUININE, and find it to contain *quinine, quinidine, cinchonine,* and *cinchonidine.*"

S. P. SHARPLES, State Assayer of Mass.

In no other form are contained the important alkaloidal principles of Bark, so as to be accessible to medical gentlemen.

In it is found Quinidia, which is believed to be a better anti-periodic than Quinine; and the alkaloids acting in association, unquestionably produce favorable remedial influences which can be obtained from no one alone.

In addition to its superior efficacy as a tonic and anti-periodic, it has the following advantages which greatly increase its value to physicians:—

1st. It exerts the full therapeutic influence of Sulphate of Quinine, in the same doses, without oppressing the stomach, creating nausea, or producing cerebral distress, as the Sulphate of Quinine frequently does, and it produces much less constitutional disturbance.

2d. It has the great advantage of being nearly tasteless. The bitter is very slight, and not unpleasant to the most sensitive or delicate woman or child.

3d. It is *less costly*; the price will fluctuate with the rise and fall of barks; but will always be much less than the Sulphate of Quinine.

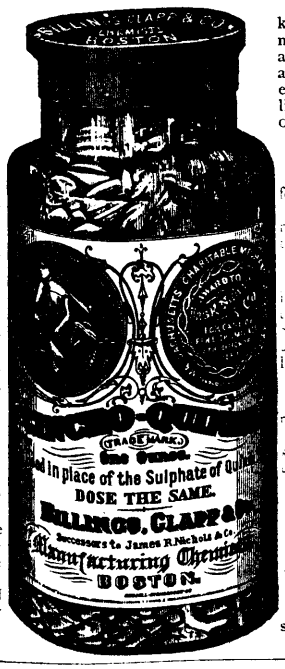
4th. It meets indications not met by that Salt.

Middleburg, Pa., April 13, 1875.

Gentlemen. I cannot refrain from giving you my testimony regarding CINCHO-QUININE.

In a practice of twenty years, eight of which were in connection with a drug store. I have used Quinine in such cases as are generally recommended by the Profession. In the last four or five years I have used very frequently your CINCHO-QUININE in place of Quinine, and I have *never* been disappointed in my expectations.

JNO. Y. SHINDEL, M.D.



Gents: It may be of some satisfaction to you to know that I have used the alkaloid for two years or nearly, in my practice, and I have found it reliable, and *all* I think that you claim for it. For children and those of irritable stomachs, as well as those too easily *quininized* by the Sulphate, the Cincho acts like a charm, and we can hardly see how we did without it so long. I hope the supply will continue.

Yours, with due regard,

J. R. TAYLOR, Kosse, Texas.

I have used your CINCHO-QUININE exclusively for four years in this malarial region.

It is as active an anti-periodic as the Sulphate, and more agreeable to administer. It gives great satisfaction.

D. H. CHASE, M.D., Louisville, Ky.

I have used the CINCHO-QUININE ever since its introduction, and am so well satisfied with its results that I use it in all cases in which I formerly used the Sulphate, and in intermittents it can be given during the paroxysm of fever with perfect safety, and thus lose no time.

W. E. SCHENCK, M.D., Pekin, Ill.

I am using CINCHO-QUININE, and find it to act as reliably and efficiently as the Sulphate.

In the case of children, I employ it almost exclusively, and deem its action upon them more beneficial than that of the time-honored Sulphate.

W. C. SCHULTZE, M.D., Marengo, Iowa.

CINCHO-QUININE in my practice has given the best of results, being in my estimation far superior to Sulphate of Quinine, and has many advantages over the Sulphate.

G. INGALLS, M.D., Northampton, Mass.

Your CINCHO-QUININE I have used with marked success. I prefer it in every way to the Sulphate.

D. MACKAY, M.D, Dallas, Texas.

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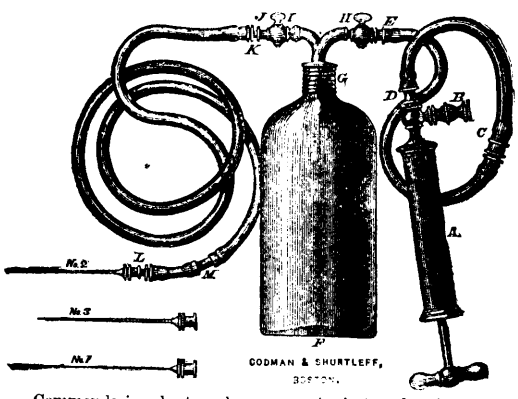
PNEUMATIC ASPIRATION,

After the Manner of Dieulafoy.

"It it always possible, owing to Aspiration, to search for a fluid collection without any danger, whatever may be its seat or its nature."
"I have thrust these Needles into almost every part of the body, into the Joints, the Liver, the Spleen, the Bladder, the Intestines, the Lungs and the Meninges, and I can affirm, and a great number of observers affirm with me, that we have never seen consecutive accidents."—*Dieulafoy on Pneumatic Aspiration, pp. 21, 24.*

WE invite the attention of the Medical Profession to this New Apparatus for Aspiration, constructed upon the general plan of Potain's modification of Dieulafoy's Aspirator, but containing the following improvements and inventions of our own:—

FIG. 68.



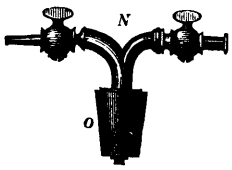


FIG. 69. The Stopper and Cocks supplied with Apparatus No. 2.

1st. Means of changing the pump from an exhaust to a force-pump, and *vice versa*, thereby enabling the operator not only to withdraw an abnormal fluid, but to inject the cavity through the tubes and needle of the apparatus with one adapted to induce healthy action.—*See Dieulafoy on Aspiration, pp. 276, 278.*

2nd. The employment in our apparatus No. 1, of a metal Screw Cap, fitting the neck of the receiver supplied with this apparatus so securely that it cannot be forced from its place by condensed air while injecting, or accidentally removed while the receiver is in a state of vacuum for aspiration.

3rd. The substitution, for the ordinary oiled silk valves of other apparatuses, of a kind indestructible both in form and material.

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MEDICAL DEPARTMENT—BOSTON, MASS.

Ninety-Second Annual Announcement, 1875-76.

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THE plan of Study was radically changed in 1871.* Instruction is now given by lectures, recitations, clinical teaching and practical exercises, distributed throughout the academic year. This year begins September 30, 1875, and ends on the last Wednesday in June, 1876; it is divided into two equal terms, with a recess of one week between them. Either of these two terms is more than equivalent to the former "Winter Session," as regards the amount and character of the instruction. The course of instruction has been greatly enlarged, so as to extend over three years, and has been so arranged as to carry the student progressively and systematically from one subject to another in a just and natural order. In the subjects of anatomy, histology, chemistry, and pathological anatomy, laboratory work is largely substituted for, or added to, the usual methods of instruction.

Instead of the customary hasty oral examination for the degree of Doctor of Medicine, held at the end of the three years' period of study, a series of examinations on all the main subjects of medical instruction has been distributed through the whole three years; and every candidate for the degree must pass a satisfactory examination in every one of the principal departments of medical instruction during his period of study.

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For the Second Year—Medical Chemistry, Materia Medica, Pathological Anatomy, Clinical Medicine, Surgery and Clinical Surgery.

For the Third Year—Therapeutics, Obstetrics, Theory and Practice of Medicine, Clinical Medicine, Surgery and Clinical Surgery.

Students are divided into three classes, according to their time of study and proficiency. Students who began their professional studies elsewhere, may be admitted to advanced standing; but all persons who apply for admission to the second or third year's class, must pass an examination in the branches already pursued by the class to which they seek admission. Examinations are held in the following order:—

At the end of the first year—Anatomy, Physiology and general Chemistry.
" " second year—Medical Chemistry, Materia Medica, and Pathological Anatomy.
" " third year—Therapeutics, Obstetrics, Theory and Practice of Medicine, Clinical Medicine, and Surgery.

Examinations are also held before the opening of the School, beginning September 27th. Students who do not intend to offer themselves for a degree will also be received at any part of the course, for one term or more. Any student may obtain, without an examination, a certificate of his period of connection with the school.

REQUIREMENTS FOR A DEGREE.—Every candidate must be twenty-one years of age; must have studied medicine three full years, have spent at least one continuous year at this School, have passed the required examinations, and have presented a thesis.

COURSE FOR GRADUATES.—For the purpose of affording to those already Graduates of Medicine, additional facilities for pursuing clinical, laboratory and other studies, in such subjects as may specially interest them, the Faculty has established a course which comprises the following branches:—Physiology, Medical Chemistry, Pathological Anatomy, Surgery, Auscultation, Percussion and Laryngoscopy, Ophthalmology, Otology, Hygiene, Dermatology, Syphilis, Pyschological Medicine, Electro-therapeutics, Gynæcology and Obstetrics.

Single branches may be pursued, and on payment of the full fee also the privilege of attending any of the other exercises of the Medical School, the use of its laboratories and library, and all other rights accorded by the University will be granted. Graduates of other Medical Schools who may desire to obtain the degree of M.D. at this University, will be admitted to examination for this degree after a year's study in the Graduates' Course.

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* In and after September, 1877, an examination on entrance will be required. For particularssee Catalogue.

THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

VOL. VIII. TORONTO, FEB. 1ST, 1876. No. 6.

Original Communications.

UNILATERAL CONTRACTION AND INDURATION OF THE LEFT LUNG.

BY J. STEWART, M.D., L.R.C.P. & S., ED., BRUCEFIELD.

(Read before the Huron Medical Association.)

I bring before you a patient who is suffering from a comparatively rare form of disease. It is a case of contraction and induration of the left lung of over four years standing. Susanah D., æt 18, always enjoyed good health up to March, 1871, at which time she contracted "a cold," and has not been well since. The late Dr. Cole attended her during the first few months of her illness—his diagnosis being chronic bronchitis. I saw her for the first time six months after her illness began; she was still suffering from chronic bronchitis, which was principally confined to the left lung; at this time she was as thin and wasted as she is at present. With the exception of having lost an elder sister lately from phthisis, the family history is good. She is very thin and spare; weighs only ninety pounds. She complains of a cough and shortness of breath on exertion. The expectoration is glairy, viscid and white in colour, not excessive in quantity. There is no history of hæmoptysis. The temperature is generally normal. She is subject to slight attacks of bronchial catarrh; has never been troubled with night-sweats; appetite is generally good; bowels regular; she has never menstruated.—(*Patient now brought forward.*)

Physical Signs.—On inspection there is at once noticeable a marked contraction of the left side. On asking her to take a full respiration, we notice that there is no inspiratory expansion whatever—in place of the chest walls expanding during this act we see them fall in between the fourth intercostal space. On further inspection we also see an impulse in the second left intercostal space, two inches from the left border of the sternum—this impulse is systolic in rythm. On laying the hand over this part, a distinct diastolic shock is felt. A systolic impulse and diastolic shock situated in the second left intercostal space an inch and a-half to three inches from the left border of the sternum, are considered by Nothnagel to be the most certain evidence of shrinking of the left lung. These two physical signs being then of so much importance, it will be well to inquire into their causes. In order that this systolic impulse and diastolic shock should be produced in the situation named: viz., in the second left intercostal space—an inch and a-half to three inches from the left border of the sternum—the three following conditions are necessary—(1.) Displacement of the heart to the left. (2.) Increased pressure in the pulmonary artery. (3.) An induration of the left lung covering the pulmonary artery, or so much retraction of this portion of the lung, as to leave the base of the heart free. It is only in induration of the left lung that we find these three conditions present. The cause of the systolic impulse is the distension of the pulmonary artery during the contraction of the ventricle. The diastolic shock is owing to the sudden closure of the pulmonary semi-lunar valves. The apex beat is ill-defined—situated on a level with the nipple and immediately inside of it—so that it is displaced upwards and outwards. The vocal fremitus is diminished. Percussion over the whole of the diseased side in front, gives an absolutely dull note. Posteriorly towards the base, the note is of the same character. In the supra-scapular region the dullness is not absolute. The resonance on the sound side is exaggerated; the right lung extends a quarter of an inch beyond the left border of the sternum. The liver is displaced an inch downwards by the right lung. We also find the diseased lung so much retracted, as to allow the stomach to ascend to the fourth intercostal space. These two latter signs: viz., an encroachment of the sound lung towards the diseased side, and raising of the diaphragm on the left side, are absolutely diagnostic of contraction of the lung. There is nothing distinctive, in the signs elicited by auscultation, of this disease. Here the respiratory murmur at the apex in front, is tubular in character and accompanied by whistling râles; further down there is scarcely to be heard any respiratory murmur whatever. Over all the front of the chest and towards the

base behind, the heart sounds are very loud, the dense lung being a good conductor of sound. Behind, the respiration is blowing in character over the scapula ; further down and along the vertebræ it is harsh, and in the latter situation is accompanied by cooing râles. The breathing on the right side both in front and behind is exaggerated. Along the vertebræ there are a few râles to be heard also on this side, but their appearance is only a late occurrence, due to a slight attack of bronchial catarrh, from which she is at present suffering. Posteriorly the breath sounds are heard three inches lower down on the right than on the left side, this being still further evidence of the shrinking of the left lung. The vocal resonance is increased both anteriorly and posteriorly. There is in all probability hypertrophy of the right ventricle ; but owing to the encroachment of the right lung to the left side, there is no physical evidence of this condition being present.

Remarks.—What is the nature of the organic change that has taken place in this lung? It can be only one of two changes. It is either a lung that has undergone the fibroid change, or one that has been compressed by a pleural effusion. I think there is little doubt but that it is the fibroid change which has taken place here. The physical signs of the two conditions are much alike, so that we have to look to the history to discriminate between them, it being the only trustworthy means at our command. A change of this nature following bronchitis must of necessity be of a fibroid character,—at least it is impossible for bronchitis to bring about a compressed lung. This patient never had pleurisy. It sometimes happens that a lung compressed by previous pleural effusion takes on a fibroid change. The physical state of a lung that has undergone this fibroid change is the following:—It is contracted, indurated and pigmented —its vesicles are obliterated and the bronchial tubes dilated. There is no dilatation of the bronchial tubes in this case, at least, the dilatation is not extensive enough to manifest itself, either by the general symptoms or physical signs by which this condition is characterized. The lung tissue is hard and dense and cannot be torn, and creaks on being cut. These changes are partly due to a proliferation of the normal connective tissue of the lung, and partly to the formation of a nuclear growth, which develops into extensive tracts of fibroid tissue. In the first stage of the disease, the lung becomes increased in volume, owing to the increase of its connective tissue. In the second stage, this tissue contracts and gradually obliterates the air cells, leaving the lung in the state just described. This change seldom or never takes place without previous inflammatory processes in the lung. A few say that they have seen it occur as a primary affection, resembling the similar process that takes place in the liver and kidneys.

A peculiar feature of this disease is that it is nearly always unilateral,—generally affecting a whole lung, sometimes confined to a part of it. This is the second case of this nature that I have met with in private practice. The first case was in a man, æt 35. It ran a course of eight years. Here there was very great dilatation of the bronchial tubes. The expectoration for years was enormous in quantity and horribly offensive. There were at least two large bronchial cavities in this patient's right lung. He died from pneumonia, probably induced by diffuse putresence of the lung. Fibroid induration of the lung has various synonyms. It is at present generally called fibroid phthisis. It is the same disease as Sir Dominick Corrigan described years ago by the name of "Cirrhosis of the Lung." It is also called interstitial pneumonia, chronic pneumonia, &c. Our late lamented president was clinical clerk to Sir Dominick Corrigan and had charge of the first case of this disease that this celebrated physician described. In conclusion I will say that it is very important in a prognostic point of view to make a clear distinction between this form of phthisis and the more common forms, for the reason that this disease runs a very long course—lasting generally for a series of years, being in this respect very different from the ordinary forms of consumption. This disease in itself does not tend towards a fatal issue. The patient's lease of life depends a good deal on how the sound lung continues to perform its functions. If it should become inflamed, etc., the prognosis would be very grave. Again, as long as the right heart is able to propel sufficient blood into the lungs, the prognosis remains good, but through time the right ventricle becomes exhausted from overwork, its fibres degenerate, the consequence is marasmus and general dropsy. The treatment of this disease is of course only a mere treatment of symptoms. There are no known means of resolving cicatricial tissue.

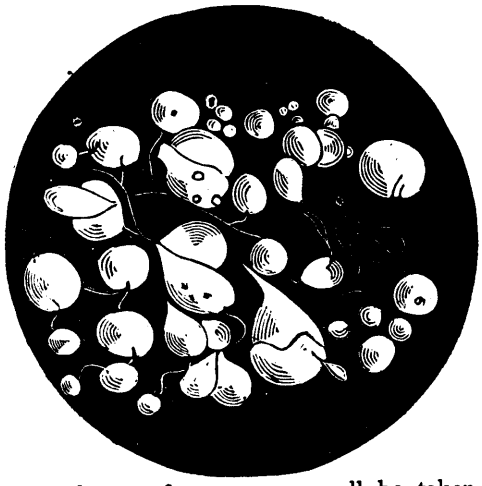
A CASE OF HYDATID DISEASE OF THE CHORION.

BY NORMAN BETHUNE, M.D.,F.R.C.S. EDIN., &C.
FELLOW OF THE OBSTETRICAL SOCIETY OF LONDON.

The subject of the following case was a married lady, aged forty-one, of delicate constitution and highly nervous temperament; the mother of eight children, two of whom died from affections incidental to childhood. Her eldest is now twenty.

She has had repeated miscarriages which, if we may include the present instance, amount to seven; of those one occurred between the births of the first and second, another between those of the second and third, and two between those of the fifth and sixth; all of them from the fourth to the sixth month of pregnancy. The remaining three took place about the second month, and *after* the birth of her youngest, a fine child, now nearly five years of age. Her health has been indifferent since the loss of one of her children eleven years ago, caused, as she supposes, by watching and over anxiety at that time. She has suffered from repeated attacks of neuralgia of the head and face and general debility for the last four years. Three months ago she had occasion to suspect pregnancy, having noticed a suspension of a catamenial period on the 1st of October (the last appearance being on the 1st of September.) The catamenia were again observed on the 22nd of October in a slight way and continued to the time I first saw her, in consultation with her medical attendant, on the 26th of November. It appears that on the 20th November (a week preceding) she had experienced a sharp attack of hemorrhage with severe labour-like pains recurring at intervals of ten minutes, to arrest which morphine had been administered and sponges introduced and kept applied for fourteen hours. By these means, both hemorrhage and pains were so far arrested that nothing but a sign of the former remained for a fortnight afterwards. Subsequently, however, a flow occurred mixed with dark odorless clots and glairy strings of the thickness of a straw and four or five inches in length. She states that she had no pains at this time, but observed that a sense of weight at the lower part of the abdomen preceded the discharge. Since the first appearance of blood on the 22nd of October she noticed a strange fulness above the pubes. It alternately contracted and relaxed but in either event occasioned no difference as to the quantity of the flow. The breasts became fuller, described by herself as being more fleshy than is usual in early pregnancy. Sickness at the stomach was a symptom which distressed her very much, commencing at the time the flow appeared on the 22nd of October. It persisted day and night with little intermission, in spite of the remedies appropriately directed to its alleviation. She experienced no pains at this period, but complained of the sense of weight already alluded to. She had strange fancies and longings for food, but could bear nothing on her stomach for any length of time. When I first saw her on the 26th of November (*i.e.*, one month after the first discharge) she presented the following symptoms:—She was in bed, prostrate, and naturally pale she was now decidedly blanched, and in a very reduced physical condition from the protracted drain, which was still continuing. The uterus was large, and could be easily felt above the pubes. It presented a moderately firm pyriform tumour, reaching a point midway between the pubes and umbilicus. The os uteri was high up, directed considerably backwards and slightly patulous. By careful digital examination nothing was noticed within the os; the cervix was somewhat elongated, and it, as well as the neighbouring parts of the organ, gave a firm hard feel to the touch. There was a pretty free discharge of a darkish sanguineous fluid from the vagina. The physical symptoms were observed and intelligently described by the patient, prior to the examination made by myself in confirmation of them: viz., a tumour of a *bizârre* character, sometimes comparatively small and hard, at others large and flaccid, or hard at one side and soft at another, or alternately bulging out either in the umbilical or right and left hypogastric regions successively. After apparently shifting in this manner both as regards position and density, it would flatten out and occupy a large area, feeling quite soft throughout and giving the patient the sensation and exciting the hope in her mind that it had altogether vanished. On these occasions of alternate hardening and softening of the tumour, she never experienced any pain whatever, at any rate nothing approaching what might be termed labour pains. Percussion and auscultation gave no clue as to the character of the tumour. As sponges had been resorted to, and the *spes ultra* scarcely

entertained that a fœtus if present could be saved she was ordered ergot for some days in addition to such articles of food and stimuli as she could retain. Ergot appeared to have no effect in recalling the pains, but she picked up sufficient in a few days to be enabled to leave her bed for an hour or two, and she was subsequently encouraged to move into another room in the expectation that this exercise might help to bring the case to a crisis. The symptoms above described, *minus* the debility, continued more or less until the afternoon of the 27th of December (*i.e.*, two months after the first sign of discharge), when pains set in, gradually increasing in intensity and frequency. On examination *per vaginam* there was a distinct presentation of a soft body, but the os was situated so high up and so far tilted backwards, that any attempt to withdraw it by the finger failed after repeated trials. As the substance appeared to be very friable I decided not to meddle with it, and left the case to nature, trusting that the uterine contractions, which were very vigorous, would in no long time effect its delivery. About ten next morning, after a night of intense suffering, and no little hemorrhage, she was relieved of a mass which, barring its peculiar appearance, might have been mistaken for an ordinary placenta at the full period.



A large cluster of grapes may well be taken to illustrate the appearance presented by this body, which weighed nearly two pounds. It consisted of innumerable pellucid vesicles varying in size from that of a pin's head to a cherry stone; they were chiefly suspended by long hollow filaments to the deeper structure, but others appeared as secondary cysts or buds derived from the larger ones. Some of these latter showed a tertiary set of sprouts and others a spray of filaments, the debris probably of another aborted set. Many of the vesicles showed opaque whitish dots and two distinct coats, the outer one having been partially stripped off by attrition, as seen in the two largest vesicles in the accompanying sketch.

Paget states that the process of formation of these cysts may be summed up as follows:—Certain of the cells in the proper villi of the chorion deviating from their cell-form and increasing disproportionately in size, form cysts which remain connected by the gradually elongated and hypertrophied tissue of the villi. On the outer surface of the new formed cysts, each of which would, as it were, repeat the chorion, and surpass its power, a new vegetation of villi sprouts out of the same structure as the proper villi of the chorion. In these begins again a similar development of cysts, and so on *ad infinitum*. Each cyst as it enlarges seems to lead to the wasting of the cells around it, and then, moving away from the villus in which it was formed, it draws out the base of the villus which strengthens itself and forms the pedicle on which the cyst remains suspended.

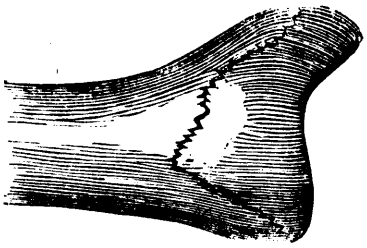
With the exception of the discharge of a small mass of cysts, and inconsiderable homorrhage on two occasions subsequent to the above, the patient has been gradually improving, and is now in a fair way of recovery, the uterus having contracted to its normal size.

COMPOUND DISLOCATION AND FRACTURE OF THE ANKLE JOINT.

BY CLARKSON FREEMAN, M.D., MILTON, ONT.

On the 25th of Sept. 1874, Mr. Robert Johnston, æt 43, stage proprietor of Burlington, while driving quickly down a hill, his horses bolted to the left hand side of the road, and upset the stage at the bottom of the hill. His leg was caught, near the foot, in the wheel which almost twisted his foot off. On examination I found the tibia dislocated to the inner side and protruding about four inches through a transverse wound of nearly three inches in extent. The fibula presented a comminuted fracture at the upper part of its lower third. He had lost a considerable quantity of blood from the lacerated vessels, before I saw him. Dr. Beattie of Kilbride, administered chloroform, and when the patient was completely under its influenee, I flexed the thigh and knee, and produced extension from the foot, and thus readily reduced the tibia to its normal position. I brought the integument together with a bandage, and placed a side-splint on the outside of the leg and retained the leg in a flexed position. On the fourth day gangrene and sloughing commenced, which soon exposed the whole of the internal malleolus. Extensive cellul-

itis also supervened, which required frequent openings to allow the matter to escape from the leg. He had severe constitutional disturbance accompanied with hectic or irritive fever, which required the constant use of iron, quinine, and wine, &c., and the liberal use of opiates to allay the severe proxysmal attacks of pain at the ankle joint, which were so intense as to produce great agony and cause him to break out into profuse perspiration. I was obliged to change the position of the foot many times in order to avoid bed sores, and he became so exhausted that it was painful to make any alteration of position. As soon as I ascertained that the lower part of the tibia was loose (although it was never fractured), I extracted it, (on the 99th day after the accident) to the great relief of my patient. The necrosed bone was nearly an inch in length, and wedge-shaped; the articular surface forming its base.



(The irregular furrow in the cut shows the line of separation.)

I introduced my finger into the joint, but discovered no other fragments of bone. The periosteum appeared quite smooth, as also the remaining articular surface of the joint. The foot was easily displaced forward or backward about an inch without pain. There was also a deep slough at the heel. His improvment dated from the extraction of the necrosed bone, and as soon as he had sufficient strength I drove him ten miles to his home (on the 13th of June, 1875), and placed him under the care of Dr. Richardson of Burlington. There was new formation of bone at the end of the tibia, so that the leg has its right length, and there is slight motion of the joint. There is a little defective union of the upper fragment of the fibula when I last saw him; but there is no doubt that he will have a useful limb. I will conclude by giving and extract from Mr. J.'s letter, dated Nov. 30th, 1875.—

Dear Doctor,—I am in first-rate good health, and weigh 168 pounds—ten pounds heavier than I ever did. I can bring down fifty-eight pounds pressure upon my foot, which I find is a gain of five pounds pressure per week. I can now calculate when I will be able to walk without my crutches, as I have only sixty-five pounds more to overcome. I will write and let you know when I am able to walk. Yours respectfully, Robert Johnston.

MAN'S MORAL RESPONSIBILITY FROM A SCIENTIFIC STANDPOINT.

BY HENRY HOWARD, M.D., M.R.C.S., ENG., SUPERINTENDENT INSANE ASYLUM, LONG POINT, ST. JOHN'S, QUEBEC.

Read before the Medico-Chirurgical Society, Montreal, Dec. '75.

The subject to which I beg to draw your attention this evening is, I consider, one well worthy of your consideration "*Man's Moral Responsibility.*" Examined by the Light of Science, in other words, how far man is obligated to obey that Moral law which governs the universe, that great unwritten law, stamped upon the soul of man by the hands of his Creator, but which, through physical defects, the creature does not always recognize. It is a very easy thing to say that every man is morally responsible for his acts, but it is quite a different thing to prove the assertion. I believe that, under certain circumstances, man is morally responsible for the greater part of his acts, under other circumstances he is not morally responsible and that, under no circumstances, is he morally responsible for all his acts. To assume that a man was thus responsible would be to assume, not that every man had a free will, for this every man has, but that every man was so organized, mentally and physically, as to direct his will and make all his thoughts, acts and deeds subject to his will. Now this we know is not by any means the case: every man from his own experience knows that he cannot always, indeed that he very seldom can, control his thoughts. We frequently think of the very thing we do not wish to think of, and cannot think of what we would wish to think of. A horrible sight attracts our notice, we would feign forget it, but our thoughts haunt us, with it night and day, and no force of our will can enable us to forget it. How many thousand occurrences of our past lives would we not all willingly forget, but we cannot do it,—the most simple occurrence, brings the past into our thoughts, with the greatest

vividness, without any action of our will. On the other hand, how often do we wish to remember the most simple thing, such as a word or the name of a person, and by no act of our will can we think of either the one or the other. Again, take passions arising from our emotional organization—love, joy, grief, jealousy—none of these are at all times under the control of the will; we may conceal them to a great degree, but we cannot always control them by any force of the will. Thought and desire, then, is to say the least of it, not always under the control of the will. Are our acts to do or not to do, always under the control of the will? I think not. We all know how many things we wish to do and cannot do from one cause or another; and I believe that it is the experience of nearly every man that, at some period of his life, from an internal force, he was impelled to act contrary to his will. Again, no matter, how much we wish it, we cannot always control or change either hereditary or acquired movements of our body, or peculiarity of action. It is a truly scientific fact that every man has a free will, and it is simply nonsense to talk of any one in the world controlling the will of another. Our acts may be controlled by external circumstances contrary to our will, but no external power can control our will, though a man may be so situated that he is powerless to obey his will. Another important scientific fact, the comprehending of which is necessary for the well-being of man himself in particular, and society in general, is that the will itself, unless it is properly instructed through the organs of sense cannot be a guide to our physical organization, and, unless the mental organization is healthy and well-balanced, the will can only act upon it by directing it wrongly, as it does the mental organization of the idiot, the imbecile, the lunatic, and the morally insane, which causes them all to be irresponsible for their acts. Again no matter how well instructed the will may be, and how strong may be a man's reasoning powers, if he is born a cripple he is not responsible that he cannot run, nor if he be a paralyzed man that he does not escape from a burning house.

There are very many circumstances over which we had, or have, no control—that lessen our moral responsibility. None of us had a choice of parentage, the time or place of our birth, our early education and surroundings; we came into the world without our will, and we will leave it whether we will it or not.

A man's moral, as well as his physical nature is made for him; whether that moral nature be good or bad, he is indebted to his progenitors for it; it is his inheritance, as much as is the colour of his eyes or the shape of his features The mental and physical organization, being one mind and body, constitute one animate man, inseparable and indivisible; both are the act of procreation, from the moment man is conceived in his mother's womb.

Locke, and the philosophers of the Utilitarian school, taught that there were no innate principles in the human understanding, no primary notions, stamped upon the mind of man. He would not have fallen into this error had physiology and pathology, proved in his day, as they have in ours, that mind and body are one, nor would he have confused the mind with the soul. He would have seen that procreation was a whole, not a part, so far as the natural order went; and that man's mental organization was as much due to his progenitors as was his physical formation. The opposing school, the Intuitionists, recognized the fact of mind and body being one procreated animal man, and the soul a distinct thing, coming from the hands of the Creator, at the very moment of conception. They consequently recognized the fact that there was primary innate principles stamped upon the mind of man. Metaphysicians have not agreed, and perhaps they never will agree, as to the exact time during gestation that the sou enters into the child. Bnt this has nothing to do with the question before us, so long as we recognize the fact that man possesses a soul. a supernatural part, that he does not inherit from his progenitors, but is given to him direct from God, and that it is this soul that makes the difference between man and all other animals. I am not going to enter into the question whether a man does or does not possess a soul, but simply take it for an undisputed fact. If, however you ask me what is the power of the soul upon the body, I answer, that the soul and will are one, or rather that the will is the operation of the soul, and, as I have already said, perfectly free in its action for good or evil, though limited in its power, according to the physical organization it has to deal with. It can do very little with the mental organization of an idiot, an imbecile, or a lunatic, and that little is all wrong; but it can be directed by the reasoning powers of the strong intellect, and by so doing bring the whole man into subjection.

I would not have you suppose that the only attribute of the soul is will, but that by this attribute do we best comprehend it; by this attribute we know that it is something, not of, but acts upon the intellectual portion of our mental organization, and is again acted upon by it. It is neither mind nor body, but something distinct from both. Conscience is another attribute of the soul. You may ask, is it matter, or is it spirit? For nearly two thousand years the answer to this question has been fought in every shape and form, and with much injustice, bitterness and bad feeling, by

two contending parties, the Materialists and the Spiritualists, both parties defending their opinions by appeals to Scripture, thereby admitting that it was outside the *dome* of Science. And it appears to me that the battle has been, and yet is, a very fruitless one, particularly as both parties agree that the soul leaves the body at death, and lives for ever; that it is immortal. Now I *believe* that the soul is spiritual, but I am not going to find fault with Mr. Tyndall because he *believes* it material, when, as I have already said, he believes it, if I understand him right, to be immortal. No doubt, the difference in our views is due to the difference there is in our mental organizations, and the impressions made upon the same in our childhood, so that if we would we could not think alike on a subject that science cannot explain by either physiology or pathology, like it does mind and body.

Mr. Tyndall admits the grand, inexplicable mystery of procreation, but in my opinion he only adds to the mystery when he endeavours to prove that the *immortal* soul is derivable from the mortal parents, as is the mortal mind and body. I think it is much easier to believe that our immortal, ever-living part comes direct from God.

The more I have studied the question and the more I have observed mental diseases, and particularly their history, the more am I convinced, not only that mind and body constitutes one physical being, but that man inherits his moral qualities from his progenitors, the same as does any other animal inherit the particular characteristic of its species. Whatever the parent is in kind, such will be the offspring; we do not breed a terrier from a bull-dog, nor a hunter from a cart-horse, neither a greyhound from a foxhound, and so far as the animal goes, there is just as great a difference amongst men. One thing we all have in common, and that is what God specially gives—the supernatural soul.

Messenger Bradley, writing on the subject of the hereditary transmission of our moral qualities, says: "To a certain extent the doctrine that a man's moral nature, like his physical, is made for him does meet with general acceptance, for, admitting the influence of hereditary temperaments, a large concession is made to the truth of the agreement, and no one will be bold enough to deny that different temperaments, which the individual volition will vainly attempt materially to modify, are inherited, such as cheerful, morose, timid, bold &c., and that these again are associated with special bodily conformation. The common expression, it is just like Roger, he is cursed with a bad, or blessed with a good temper, &c., indicates a general acceptance of the statement that different men possess different moral temperaments. With a man whose nature is passionate it is a blow and a word; the phlegmatic man, under similar circumstances, consults his lawyer." To praise firmness or good temper in some men, and to blame others for weakness or peevishness is on a par with praising an eunuch for chastity or blaming an African for fetichism. Nor does heredity influence the character in a physiological manner only. But pathology often plays an important part in determining the resultant moral nature, not only in a vast number of diseases, such as insanity, gout, consumption, cancer, epilepsy, &c., each of which influences the moral temperament hereditarily; but many habits and even tricks of manner are ascertained to be transmitted from parents to offspring without any accompanying disease, and such cases may be regarded as instances of the inheritance of moral pathological traits. The influence which many diseases exercise upon the nature of the individual is prodigious, *ergo*, in the various forms of insanity the whole moral nature is frequently not merely modified, but completely changed, and the bias which the nature takes may be shown to be in every instance dependent upon the part of the brain affected. Thus pathology enables us to state that irritation of the frontal cells produces insanity of the intellect, *acute mania*, and that softening of the same parts leads to *dementia*; that irritation of the parietal and occipital cells results in moral insanity, melancholia, &c., often leaving the intellect quite unclouded; and that irritation occurring still further back in the cerebellum and medulla oblongata produces a want of controlling power, or what might be called insanity of the muscles. "It is easy, then, to understand from this, how disease will often modify, or even quite change a man's moral nature. Solomon, with inflamed frontal cells, becomes a raving maniac; and we have but to irritate the parietal cells to turn Diogenes into a pickpocket; excite the cerebellum, and Joseph is turned into a Don Juan."

It is evident then, that man is a mere creature of circumstances; he has nothing to do in the choice of parentage; his mental organization is made for him, as well as his physical; he has no choice as to what his surroundings are to be in childhood, or how he is to be educated; it may be as a thief, a liar, a hypocrite, or a *fanatic*, or it may be the very contrary; he is lead he knows not how, he cares not where. With all these facts before us it is hard to see where or when a man's responsibility begins; yet under certain circumstances man is in a great degree morally responsible for his acts; that is, he is (I take it) merely responsible for what he has received, and no more. If he has received the ten talents he is responsible for the use he makes of them; if but the one, he is only responsible for the one; and if he has received no talent, he has nothing to give; therefore nothing can be required of him; nothing from nothing and nothing remains. Such, for example, is the case of the imbecile and idiot; they have received nothing, and consequently have nothing to give.

The man of a weak or badly-balanced mental organization has only one poor talent; little can be expected from him; and that little becomes less if his early surroundings are bad and vicious. On the other hand a man who does not inherit any criminal or disordered taint—a thing rare to find; whose mental organization is healthy and well-balanced; whose surroundings from infancy to manhood have been the good and the beautiful; whose moral education has been well attended to, and who is as strong and healthy in body as in mind,—in fact, a man that has received his full ten talents, that man as long as his health remains, is as near to being a truly responsible man, as we can possibly conceive a man to be.

We can each and all of us without much trouble come forward, when required, and declare the maniac, the imbecile and idiot not morally responsible beings; but it is not so easy to point out and say, that man has received his ten talents, and is responsible in the highest degree, and that other man has only received his one talent, and has but little moral responsibility. No man in such cases can certainly judge of his fellow but every man can judge himself and know exactly his responsibility.

I have spoken of moral insanity; I shall now explain what I mean by that term. To Mr. Maudsley of all other men belongs the credit of having drawn attention to this form of mental alienation. Like any other form of insanity, it is caused either by hereditary transmission or physical disease. In both cases there is some abnormal state of the moral portion of the nervous centre. Pathology has shown, that according to the symptoms, the disease will be in the cells of the cortical portion of either the lateral and posterior portions of the cerebrum, or the cortical portion of the cerebellum and medulla oblongata. What is extraordinary in this form of insanity is that the afflicted person is in no sense a maniac. His intellectual organization will be all right; no hallucination, illusion or delusion. A morally insane man can reason just as well as he ever reasoned; indeed in some cases the reasoning power seems to be sharpened. Yet, is the person actually mad and irresponsible for his acts? His disease impels him to commit acts contrary to his reason. The honest man of yesterday becomes a rogue to-day, by an impulse that he cannot control. The sober man of yesterday becomes the drunkard of to-day from a similar reason. The peaceful man suddenly becomes a murderer, and the chaste man impure. And all this simply the result of disease; simply cases for medical treatment, and not for punishment. It is not moral depravity, it is moral insanity.

Let us mention a few cases of ordinary occurrence. A mercantile man, whose whole life has been that of an honest honorable trader,—a man of irreproachable character, most particular in all his money transactions. This man gets an attack of fever, and, to all appearance, recovers, going again to his business office with his intellect clear and sound as ever; after a short time, society is startled to hear that he is a forger and robber. He stands his trial for the offence, perhaps pleads guilty; he is committed to prison; then perhaps for the first time comes out his secret, that he was impelled by a power that he could not control, and that no one was more surprised at the act than he was himself; he calls it the temptation of the Devil, and that he has a right to suffer punishment for his crime. Not only that, but he tells you he believes if he was free he would be guilty again. No one believes his story, a few months more, and he becomes a raving maniac, then good people say it was his *conscience*. Nothing of the sort, it was the spread of the disease from one part of the brain to the other. He dies, and pathology proves, too late, that the man had been morally insane. Society is very sorry. Had that man gone back to his medical man when he first felt what he considered a temptation from the Devil and told him his secret, his medical man would have seen he was suffering from disease, and he never would have been the inmate of a felon's cell.

Another case: a young girl, mild, modest and amiable, neat and proper in her person, has, through the neglect of teachers, and ignorance of parents been educated to death, becomes languid; loses her appetite; suffers from neuralgic pains in the head; next come sleepless nights, she wants to be alone, shuns the society and pleasures of other girls, negligent of her personal appearance; all these symptoms followed by strong sexual desires, which render her miserable and unhappy,—this last symptom she conceals through shame, but by and by she breaks all bounds, and falls into a life of shame and misery,—society crushes her down, not knowing or believing that she was morally insane, because her intellect had not been deranged.

Again, a nursing woman feels a sudden impulse to kill her child; she cannot understand what has possessed her; she frets and prays, and the more she does so, the stronger the temptation;—some dear friend, her husband, mother or sister, sees her fretting, and, after much difficulty, gets her to confess the cause; medical advice is sought, the medical man sees at once, it is due to weakness of the brain, caused by the drain on the system—he orders porter, and the temptation is removed,—this is neglected, she kills her child, and ends, from the spread of the disease, in becoming a furious maniac.

Again, a well-educated, highly-intellectual married man, of irreproachable character, a hard student, loves his wife and children, and works hard to make provision for them, has a sudden impulse to

kill his child,—he has no reason for such an act, it is simply an impulse that he feels he cannot control,—he has neither hallucination, illusion, or delusion, but he feels this terrible impulse growing upon him from day to day, and from day to day growing stronger. He makes known his desire to his wife or medical adviser. is properly treated, cured, the desire departing from him; he is saved from the felon's grave.

These are not mythical cases, they are actual, facts which have come under my own observation, with many similar cases, all presenting different characteristics, but all cases of moral insanity and none of them very difficult to diagnose, and see that they were not cases of moral depravity. There is one important fact, which I have not seen attention drawn to by any author, and which I have always observed, and that is that the morally insane are only insane on one particular point; they generally only commit one crime, or one sort of crime; they will not rob and murder, if the impulse be to rob, they will rob. if to kill, they will kill, or attempt it. The boy Pomroy, for example, whom we have heard so much of, for his blood thirstiness has only been accused of the one sort of crime, and that without any apparent motive,—of course the boy was morally insane.

I have spoken of moral insanity from hereditary transmission. It is harder to draw the distinction between this form and moral depravity than the form that appears from accidental disease, such as I have described; yet it is a distinct disease, just as much so as is gout or phthisis, and, like those diseases, may remain dormant for years, perhaps never appearing, unless some particular exciting cause calls it forth. The symptoms are very similar to those that occur in the forms I have described, but more variable in their characteristics. You will invariably find that the victim is the offspring of parents, who, if not actually morally insane themselves, are what is called very eccentric, and your are sure to find that some of their progenitors were actually mad. To find out this fact is a very important proof of hereditary transmission of moral insanity; but this generally is a very difficult task to execute. It is extraordinary, but nevertheless true, that the very last thing that any one will admit is that there was ever insanity in their family, and generally it is only in some accidental way that the discovery is made. The hereditary morally insane are more impetuous, there is less hesitation about them, they execute more rapidly, when there is the impulse to kill they do kill or attempt it without any hesitation, when the impulse is to commit suicide they generally succeed, and if saved at the first attempt they will go at it again and again till they do succeed, differing from the other form where the patient is very often cured of the desire, when saved in the first iustance,—so is it with all the other impulses. I have also remarked that the hereditary morally insane, when their impulse is to drink they never can be cured of the desire, and when they drink they do not get drunk like other men, but for the time being they become regular maniacs. The morally insane from accidental circumstances are generally curable. The moraly insane, from inheritance, are incurable. They may be relieved and discharged from an asylum, but they always turn up again. I could give you many of such cases that were under my own treatment, but it would be only occupying your time.

Writing on the subject of moral insanity, Maudsley says: "When an organism is out of harmony with the circumstances in which it should live, by reason of internal derangement, its tendencies are to self-extinction, which it would often reach quickly if it were not carefully guarded from the destructive action of its perverted affinities. Persistent suicidal impulse marks the replacement of the self-conservative, by a similar self-destructive impulse. The impulse to burn, to steal, to kill, are in like manner, occasional symptoms of deranged nerve-element, and have nothing in their nature more exceptional or surprising than other insane impulses." Gresenger, the German authority, speaking on the subject, says: "Individuals hitherto perfectly sane, and in full possession of their intellects, are suddenly, and without any assignable cause, seized with the most anxious and painful emotions, and with a homicidal impulse, as inexplicable to themselves as others." So much for moral insanity. Gentlemen, fearful as is the contemplation, yet, nevertheless, it is a fact, that there is a well-defined class of society, called the criminal class, and we must consider how far are they morally responsible beings. They are not idiots or imbeciles, but they are upon what Maudsley calls the border land between sanity and insanity. They are born of criminal parents; from the moment of their conception they have in them the criminal neurosis; they are in infancy nurtured in crime and misery, and all their habits in childhood are criminal; in fact they are conceived, nurtured, and brought up in crime, so that evil becomes their good. God help them! they cannot surely be very responsible beings; it is very questionable if they have got even the one talent, yet we treat them as if they were morally responsible for all their acts, punishing them, as if punishment would make them better, when statistics show that it makes them worse, that the greater the punishment the greater the criminal,—still we go on punishing. And yet these creatures are not wholly bad, there is some good quality, though ever so small, in them all, and they only follow after their kind, they only obey their mental organization; I believe they have just one idea in common with the whole human race, and that is the only idea there is in common; it is the desire for the greatest possible amount of

happiness, which is the greatest amount of pleasure whether that happiness is to be obtained in the present or the future. Men differ very much in their idea of happiness, depending upon their organization; what is pleasure to one is pain to another, but all seek for happiness, and the criminal in his own way. And again it must be remembered that man is the most destructive of all animals, in fact we must destroy that we may live; and such is the terrible competition in the present day, that the strong and successful portion of the educated and civilized destroy the weak, just as successfully as does the uneducated and uncivilized criminal, only it is done in a more polite way and does not bear the stamp of criminality.

It is impossible for me to conceive any one in the world committing crime simply for the sake of committing crime. I believe every man commits crime for the pleasure he derives, or believes he will derive, from the act, or under the influence of uncontrollable passion. It is only upon this theory we can ever comprehend the criminal class of society. We can no more enter into their ideas or thoughts, or their motives, if we reject this theory, than we can enter into the thoughts and motives that guide a lunatic, which they so nearly approach,—indeed it is only upon this theory that it is possible to conceive any one doing that, wilfully, which he knows or believes to be wrong, and the criminal class have such perverted minds, that what we see as good, they see as evil; they don't look upon things from the same stand-point we do; and here it is necessary for us to examine and see what it is that constitutes a criminal act: there are three essentials necessary *viz.*, *knowledge*, *liberty* and *will*. Now how many of the criminal class have knowledge of the moral law, although it is imprinted upon their souls by its Maker. I venture to say not very many; their reason is too limited to comprehend it, and liberty and will has no meaning to them but the right to take what they will to have, and the easiest way according to their ideas, of attaining to the greatest amount of pleasure,—you will bear in mind that I am speaking of a certain class of society; I am not speaking of mankind in general; I am not trying to excuse crime: but, no matter what the crime was, or who was the criminal, while I condemned the crime I would not only pity, but be as lenient as possible to the criminal, more particularly if the cause of the crime was poverty, no matter who was the criminal.

Gentlemen, I have endeavoured to prove to you to the best of my ability, that body and mind constitute one person; that, consequently, man inherited his mental organization, and, with it, his moral nature, whether it was good or bad; that the will was free to act, but limited in its power; that power depended upon the mental organization of the person; that, consequently, all men were not equally morally responsible for their acts; that some had a great responsibility, while others had very little, and others, such as an idiot, imbecile, and insane had none at all; and I have ventured to express a very strong doubt of how far the criminal classes were morally responsible for their acts.

We will now consider what would be the consequences, if society would accept all my statements as scientific truths. I may not be altogether scientifically correct, but, if so, as science is truth and cannot err, good and not evil, must come from the acceptance of truth.

I take it that the first effect would be for us to take as great an interest in the procreation of the human race, *at least* as we do in the breeding of horses, dogs, or fowls. It is wonderful what interest there is taken in the present day in the breeding of *dogs* and *birds*, and very properly so. Some few weeks ago I saw an acount of a dog show in England where a dog was valued at £10,000; that was a dog with a vengeance. I would like some one to figure it up and show, if a dog was worth ten thousand pounds, what was a man worth? I would like to see the man or the country that would give ten thousand pounds for a man, aye, or for a woman either. Well, gentlemen, if men believed that they handed down to their children their moral qualities there would be more prudent marriages, I mean prudent in a scientific point of view, not according to the well-understood meaning of the word, which is, money. A man would choose a woman for his wife, healthy in mind and body, who had a good moral, domestic education; if he was a moral coward, he would choose a woman of moral courage; if he was timid, he would choose a brave woman; if he had a hasty temper, he would choose a mild woman; if he was a man of high moral qualities he would choose a woman to be as near as possible his equal, or his superior, and that is no difficult thing to find, unless he be a very extraordinary man. Again, if parents believed that by drunkenness, gluttony or impurity, they injured their offspring, they certainly would be more cautious and make every effort to curb their desires, and not give a loose reign to their passions. Then, as parents know their own weak point they would watch for its first appearance in their children, and do all they could to throw up a barrier against their inherited weakness, simply by *habituating* them to act the very contrary. We cannot have too high an opinion of the effects of habit; it is the most powerful means we have for good or evil. It cannot destroy inherent principles but it can so modify them as to render them very harmless; therefore, it is impossible to begin at too early an age to habituate a child to do what is right, and that great right is simply to be humble, respectful to parents, and obedient to parental author-

ity. The next good that would result would be, that where a man, who had previously borne a good character, committed a crime, we would carefully examine and see if he was not morally insane before we condemned him.

Next we would take a different view of the criminal class, and provide other means than that of punishment to protect society from their ravages; for punishment for the prevention of crime has been a melancholy failure; in fact, it has only made the criminal more criminal. So much has been suggested to reform the criminal class that it is very hard to suggest a new remedy. I think the best thing to do with those adults and adolescents who are well known to belong to the criminal classes,—those creatures who are always to be found in either the court-house, the prison or lunatic asylum—is to lock them up for life, not as a punishment, for I would have their lives made to them as happy as possible, but to protect them from themselves, to protect society from them, but above all things to put a stop to the procreation of such a class of beings; for as long as they live together and procreate, so long will we have a criminal class of society: therefore, I say, separate the sexes and lock them up for life. Very good, you will say, in theory, but very difficult in practice. Perhaps so.

As to the juvenile class of criminals, place them at the earliest possible age in reformatory schools. Let them be treated as boarding-school scholars, and not as criminals. Let them be habituated to the good and beautiful; let them see, feel, and know that they can have a thousand times more happiness and pleasure in the path of honesty and virtue than in the path of crime. Above all things, let them feel and know that they are not disgraced from being brought up in a reformatory school, and when their time comes to be placed in the world, the great probability is that they will make respectable members of society, notwithstanding their inherent criminal neurosis. You will bear in mind that the class of society I have spoken of is the criminal class properly so called. I don't mean to say that all crime should go unpunished by any means, but that the punishment should be for the crime, and not for the prevention of crime, for it does not prevent it. Shooting and flogging in the army did not prevent crime. Hanging did not prevent horse and sheep stealing, from which came the old saying of those days that "a man might as well be hung for a sheep as a lamb;" in other words, where the punishment is as much for a small as a great crime, men prefer to commit the greater.

Another good result, I think, that would come from the views I have ventured to place before you would be that we would have larger views, and our ideas less contracted, with regard to other men and their opinions. We would respect the opinions of those even that differed most from us; we would more readily give them credit for their good intentions, and not be always trying to find fault and misrepresent them. We would not be even too hard upon the most dangerous member of society, the *fanatic*; we would rather in our charity pity him, knowing that his fanaticism was due to some mental crookedness, something that he could not control, due either to inheritance or early formed habit.

Gentlemen, you know well that there is much more to be said upon this important subject of "man's moral responsibility"—in fact that I have but lightly touched upon the question. It is not a subject to be treated of in full, in an evening lecture. What I have done I feel I have done with scant justice; but I have done my best, and trust that my efforts may be followed with some good results, and that my critics will be very merciful in their criticism—at least only criticise me on scientific grounds.

And to you, gentlemen, who feel you are strong in body and strong in mind, before entering into judgment upon your weaker brethren, remember that men, even if they would, cannot think alike—and be pitiful and courteous.

Correspondence.

CHLORINE WATER IN DIPHTHERIA.

To the Editor of the CANADA LANCET.

SIR,—In the last number of the LANCET, I observed an article on the treatment of *diphtheritic inflammation*, but from the severity of some of the cases quoted it appears to me that *true* diphtheria must have been the disease and not merely diphtheritic inflammation that Dr. Kitchen had to deal with.

Taking for granted that many of his cases were true diphtheria, and noticing that his treatment differed so widely from that adopted by me and many others in this part of the Dominion, I take the liberty of placing before your readers the treatment which has proved in my hands, not only very efficacious, but almost a complete specific. For the last twelve or thirteen years we have had unequalled opportunities of watching the disease in all its stages from the mere fibriny whiteness of the palate and tonsils to the complete obliteration of the palatine arch by false membrane internally, and the enormously enlarged sub-maxillary and parotid glands externally, which sometimes suppurated; death resulting in some cases from the mechanical obstruction to respiration, and in

others from pure blood poisoning as manifested through the nervous system; the local symptoms in the throat having to a great extent disappeared, leaving both food and air passages perfectly free and open.

It has attacked persons of all ages, from the infant at the breast, up to adults of 35 and 40. All classes have suffered alike, although the fatality has been much greater among the lower classes. This I presume is due to the want of proper ventilation, want of cleanliness, and inability to obtain the necessary nourishment.

It is not my intention here to enter fully into the appearances presented in different cases, but merely to call attention to the treatment which has proved so successful in my hands. When first the disease made its appearance here some thirteen years ago, it took us all by surprise, and the treatment made use of at that time was quinine in large doses, tincture of iron, alone, and in combination with chlorate of potash and dilute hydrochloric acid. The local applications were tincture of iron, nitrate of silver, and strong gargles. Hot poultices of hops, tea leaves, &c., externally. Under this form of treatment not only many died, but whole families were swept away, and the disease proved a dreadful scourge. It was not until we began to use chlorine water made of the following strength, viz.: two drachms of chlorate of potash to one drachm of pure hydrochloric acid in eight ounces of water, that we could in severe cases hold out any hopes of recovery to the patients or their friends. Under the treatment first mentioned recoveries were few, but now deaths from diphtheria are among the things of the past, that is compared with former days. Diphtheria prevails even now among us, and one patient under my care, who three days ago, was almost gasping for breath, has now so far convalesced that the false membrane has entirely disappeared, and rapid improvement is taking place. The appetite has returned, and swallowing is easy.

When called to a case of diphtheria, I first of all clear out the bowels by a dose calomel followed in a few hours by a little senna or Rochelle salts. If there is much heat of skin, as will be shown by the thermometer, a warm bath will give very great relief, and after the bowels have been freely acted upon I commence with the chlorine water. To patients from 10 to 12 years and upwards I give one tablespoonful; from 6 to 12, one desert spoonful, and under 6, one teaspoonful every three hours. In all cases it should be given without any addition of water. A towel saturated with cold spring water is to be applied to the throat and neck, the cold renewed as the towel becomes warm. The patient is to have small pieces of ice on a plate by the bedside, a piece of which is to be kept constantly in the mouth. The diet should be nutritive; beef tea, milk, eggs, and such like; but no stimulant is required unless the prostration should be alarming. In some cases which are mild and occur in young children, a mixture containing tincture of iron, chlorate of potash, and dilute hydrochloric acid, may suffice to cure, but in no case can the same dependence be placed in it as chlorine water.

Notwithstanding the opinions of Greenhow, Brettonneau, and others of equal celebrity, as to the efficacy of caustics and gargles as topical agents, I must humbly beg leave to differ entirely with them and disapprove in *toto* with such proceedings. I most assuredly believe them not only to be of no value, but in many cases positively injurious. If we look upon diphtheria as a blood poison, which it undoubtedly is, we must if possible find an antidote and administer it. I believe we have it in the above mixture. Can we expect to cure it by a little nitrate of silver locally applied, and giving a little tonic medicine? Here is a disease—a poison in the blood—manifesting itself and increasing so rapidly in a part, the free passage through which is indispensable to life, which if not arrested, will in a few hours place the patient beyond the reach of human aid. It is not a disease which we can allow, as some fevers, to run a definite course, merely supporting the strength and guiding it to a certain turning point. Such would, I think, be a dangerous experiment in diphtheria.

Regarding the contagiousness or infectiousness of this disease, experience and careful observation have convinced me that diphtheria is both infectious and contagious, for I have seen instances precisely like those mentioned by Greenhow, in which the disease has been carried for many miles, by a person having it and returning home to his family which resided in a district where it was previously altogether unknown. Brettonneau, on the other hand, in his memoirs, puts forth his opinion,

that it can only be communicated by means of the poison either in a liquid or pulverulent form coming into actual contact with mucous membranes or denuded surfaces. This I do not consider at all necessary, as I have conveyed the disease myself for many miles to members of my own family.

I have never kept an account of my cases, but I may say my experience has been large in the treatment of this disease, and I will venture to assert that since the adoption of this method of treatment, the mortality among patients has not been over one per cent.

I trust you will pardon my occupying so much space; I have merely done so, because many of your readers may not have tried this remedy in diphtheria, and I would humbly ask those who have never tried it to do so, and if it proves as successful with them as with me, then my time and your space have been used to advantage.

J. S. BENSON, M.R.C.S., E.

Chatham, N.B., Jan. 11th, 1876.

To the Editor of the CANADA LANCET.

SIR,—In your obituary notice of the late Dr. Beaumont, you say he had charge of the hospital for the wounded at Port Colborne in 1866. This may have been the case at the inception of the hospital, but he did not remain long in charge, as about the 15th of June, 1866, I was placed in full charge of that hospital by Dr. Armstrong, of the 16th Regiment (Regulars), the principal medical officer of the frontier field force. I was at the time the assistant surgeon of the 35th or Simcoe Foresters and I remained in charge until the hospital was broken up, some six or seven weeks afterwards, when the remaining wounded were taken to Toronto by me.

Very truly yours,

C. N. TREW.

New Westminster, B.C., Dec. 3, 1875.

Selected Articles.

REDUCTION OF A STRANGULATED FEMORAL HERNIA BY LASSEN'S METHOD (*The Medical Record*, November 20, 1875).—A woman of 53 had suffered for three years from a femoral hernia of the left side, and had never worn a truss. Symptoms of strangulation had existed for thirty-two hours when she was seen. After all the ordinary modes of reducing it had been tried in vain, the method of taxis which Lassen recommends was resorted to, based on his theory of the mechanism of strangulation,—viz., that the incarceration is due to obstruction of the efferent end of the intestinal loop, which on its part is caused by distension of the afferent end compressing it at the neck of the sac. The lateral movements of the whole hernial tumor, which Lassen advises with the view of empyting the efferent end of the intestine, were in this case crowned with success, the bulk of the tumor gradually shrinking and the whole slipping back rather suddenly at the last, with entire relief of the symptoms.—*Medical Times*.

CHANGES IN MIDWIFERY PRACTICE, AND IN THE TREATMENT OF UTERINE DISEASES, DURING THE LAST TWENTY YEARS.

* * * Great indeed has been the advance made in the departments both of midwifery and gynæcology since I was a student some five-and twenty years ago, and correspondingly great will be the amount of proficiency in these subjects expected from you, not only by the examiners appointed by the various licensing boards, but by the public also, with whom you will daily come in contact.

I think it will not be unprofitable to spend a few moments in contrasting the practice of the present day with that which existed when I was a student. It will probably impress on you forcibly the necessity of availing yourselves to the utmost of the opportunities afforded to you in this institution of obtaining a knowledge, not of *midwifery* alone, important though that be, but also of those *diseases which are peculiar to women.*

The rule which guided obstetric teachers when I was a pupil was this, "that meddlesome midwifery was bad," a rule not devoid of truth when applied to the attempts made by ignorant practitioners to accelerate delivery, but to be utterly repudiated when applied to the skilful efforts of the educated accoucheur. The effect of the rule was this, that women were allowed to linger in agony for fifty and sixty hours—aye, and even for a much longer time—without any attempt being made to relieve them. The results, I need hardly say, were lamentable both as regards the mother and the child. Many mothers sank, worn out by long-continued suffering, or died subsequently of peritonitis, the result of unduly prolonged uterine action. In others, sloughing of the vagina followed, caused by the long continued pressure exercised by the fœtal head on the soft parts of the mother. This again was followed either by the formation of dense bands occluding the vagina to

a greater or less extent, and which often opposed serious obstacles in subsequent labors, or by the formation of vesico, or recto-vaginal fistulæ, a source of the most intolerable misery to the unfortunate patient, rendering her loathsome alike to herself and to others. Nor were the results as regards the child less lamentable. Women were allowed to linger on in labor till, their children being dead, the perforator was used—an instrument harmless enough to the dead infant, whose life, however, was not the less sacrificed to a rigid adherence to the rule of non-interference.

All this is now changed. It is the recognized rule, followed by every well-informed practitioner, that women should not be left to linger on in suffering, but that delivery should be accomplished by the forceps when once we are satisfied that Nature. unaided, is unable to effect delivery within a safe period. What that period may be cannot be fixed by any definite rule, each case must be judged by itself; but the axiom in general adopted is this, that when once the head ceases to advance or to advance so slowly that delivery by the natural efforts cannot be expected to take place within a reasonable time, the forceps should be used. Some idea of the change in practice in this respeet may be formed from the fact that in 6,634 deliveries which occurred during three years of the mastership of Dr. Charles Johnson, whose pupil I was, the particulars of which are recorded by Drs. Hardy and M'Clintock, the forceps were used but eighteen times, or less than once in every 360 cases; while in 7,027 deliveries which occurred under the mastership of Dr. George Johnston, between November, 1868, and November, 1874, the forceps were applied 639 times, or once in about every 11 cases. The difference is so startling that we are naturally inclined to ask, Is the frequency of recourse to the forceps absolutely necessary? I am not prepared to give a definite answer to this question; but of this I am sure, that while no injury is inflicted by the forceps on either mother or child when the instrument is used by skilful hands, the most lamentable results followed the old practice of non-interference.

So much as to the frequency of the use of the forceps. Now as to the rules which were laid down for its use as compared with those at present acted on.

The conditions "which were considered indispensable in order to render the forceps applicable, and without which they were not used," by Dr. Charles Johnston, were these :(*a*)

1. That the child be alive.

2. That the head have remained stationary for six hours at least.

3. That the membranes be rupturing, and the os uteri fully dilated.

4. That the head of the child be so circumstanced that the ear can be distinctly felt.

5. That the state of the soft parts be such as denotes the absence of inflammation.

Time will not permit one to contrast *in extenso*, as I might with profit do, the great divergence which has taken place in the present day from the practice laid down, and rigidly adhered to, by those who were my teachers; I must content myself with summarising.

The 1st and 5th rules are still admitted by all practitioners, only with this great difference, that we never now wait till the life of the child is in any danger, and as a consequence of our prompt interference "inflammation of the soft parts" is now virtually never met with during labor. Therefore, though we admit the truth of the principles inculcated by these rules, the necessity of acting on them is never likely to arise in our practice. Rules 2 and 4 we altogether repudiate.

I am not able to give you any definite one in place of rule 2. I can only say that, if once we are satisfied that the powers of the mother are insufficient to accomplish delivery within a reasonable time, we at once proceed to effect delivery by means of the forceps. I should not think of leaving a patient to linger on in suffering for one hour. much less for six, after I was satisfied that the head had ceased to advance, and not unfrequently I apply the forceps even though I am satisfied it is slowly advancing. Gentlemen, the rule I refer to is now discarded by all obstetric authorities. I recommend you to discard it also. I can, with equal confidence, advise you to disregard rule 4. Many years have passed since I felt the ear of the child, for this simple reason, that I never try to feel it. I lay stress on this, because I find that many candidates for the licenses of the College of Physicians, whom it is my duty to examine, when questioned as to the use of the forceps, say that the ear should be felt before it is applied. I presume these gentlemen practice what they say, and that practice I pronounce to be wrong.

The 3rd rule is the only one on which a difference of opinion now exists among practitioners. No one of any experience as an obstetric practitioner now denies that cases will from time to time present themselves in which the forceps may, with perfect safety, be applied before the os uteri is fully dilated; and further, that from the presence of urgent symptoms, such as the occurrence of convulsions, hæmorrhage, &c., delivery by means of the forceps should, without doubt, be effected before the os uteri is fully dilated. But here agreement ceased. Some—and principle among these, the late Master of this hospital, Dr. George Johnston—hold that the forceps may be applied with nearly as much impunity before the os is fully dilated as at any subsequent period of labor. But from this view I must dissent. I hold that the ap-

(*a*) "Practical Observations," by Hardy and MClintock. 1848. P. 89.

plication of the forceps before the os uteri is dilated is a proceeding not free from danger, and that it should not be undertaken unless grave symptoms likely to compromise the safety of mother or child exist; but on the other hand, when such do occur I without hesitation have recourse to its use before the os is dilated.

Gentlemen, let me add a warning before I leave this subject. There is a great tendency in human nature to run from one extreme to the other, and this holds good in the present instance; thus, when I was a pupil the forceps were looked on with dread, and only used as a last resource; now it is considered by some as an absolutely harmless instrument, and is had recourse to on every occasion. Against such a principle and such a practice I enter a strong protest. I have known serious injury inflicted by the forceps when injudiciously and unskilfully used, and I am satisfied that injury will often follow if the tendency which at present exists to apply it when unnecessary be not checked.

In one other respect the practice of the present day has also changed. Twenty-five years ago what are known as "the short straight forceps" alone were used. This instrument, which in many cases is very efficient, measures about 11½ inches in length. To the long forceps "the most decided objection" was made; but in this hospital Barnes' double-curved forceps, an instrument 15 inches in length, is now, and in my opinion most justly, preferred. Without doubt a living child can be safely extracted with this instrument where delivery could not have been possibly effected by the old one. I believe that the lives of not a few children, who would otherwise have perished before birth, are now by this means annually saved.

Next in importance to the improvement in practice with reference to the use of the forceps may, I think, be ranked that which has occurred in the treatment of uterine hæmorrhage, whether *post-partum* or depending on the attachment of the placenta to the lower zone of the uterus.

The aim of all treatment adopted with the view of checking *post-partum* hæmorrhage is, and ever has been, to bring about such an amount of contraction of the muscular fibres of the uterus as will be sufficient to close the orifices of the uterine sinuses, and at the same time to shut off the increased flow of blood, which, necessary for the requirement of the fœtus during the continuance of utero-gestation, once parturition has occurred, is no longer needed. With the intention of bringing about this much desired object, the application of cold externally, and the internal exhibition of ergot, were relied on almost exclusively. These agents are not discarded. nor is their value questioned; but cases do from time to time occur in which they fail, and valuable lives are consequently lost. In such cases we now employ, with the greatest of success, the perchloride of iron, or some similar astringent, injecting five or six ounces of a solution containing about one part of the liquor ferri perchloridi fort. to three of water into the uterus. This treatment I have employed repeatedly, and can unhesitatingly bear testimony to its value. I believe that through its means lives are annually preserved which would otherwise be lost. Our knowledge, too, of the causes producing hæmorrhage when the placenta is attached close to, or over, the os internum, is now much greater than it was in former days, and consequently the treatment of these cases is modified and improved. The theory generally held was that when the placenta was attached to the lower zone of the uterus it underwent a continuous separation, corresponding to the gradual expansion of the neck, and it was laid down as an undisputed axiom that "the more the labor advanced, the greater the hæmorrhage;" consequently it was held "that manual extraction of the fœtus by the feet was absolutely necessary to save the mother's life."

To Dr. Robert Barnes we are mainly indebted for disproving this theory, and basing our practice on a sounder footing. It would be impossible for me, in a cursory retrospect, to enter into the discussion of this important subject. At a future time I hope to invite your attention to it more in detail. On the present occasion I can only say that it is to my mind clearly established that the blood flows, in cases of unavoidable hæmorrhage, not from the placenta, but directly from the uterine sinuses; that the old practice of endeavoring to effect delivery by turning is, in many of these cases a dangerous one; for serious injury is likely to be inflicted, and possibly rupture of the uterus occur, from an attempt to force the hand through the undilated, and often undilatable, cervix. Now in the great majority of cases we rely on rupturing the membranes, effecting this by guiding a probe, stilette, or some similar instrument, through the os uteri, and then waiting until uterine action sets in. It is very seldom that much blood is lost after the membranes have been punctured: if it occurs, we endeavor to dilate the cervix gradually, by means of Dr. Barnes' bags, as his hydrostatic dilators are commonly termed. But it is not very often we are obliged to have recourse to these, and in these cases the less Nature is interfered with, the better.

Again, in the treatment of puerperal convulsions our practice is greatly changed. Bleeding was formerly relied on almost exclusively. It was practised in these cases long after it ceased to be employed in others. I am far from saying that in certain cases of convulsions bleeding is not useful, but it is not often necessary. The exhibition of chloral, or the inhalation of chloroform, is now with justice relied on.

Chloral, too, is now used with great advantage in cases in which the cervix uteri is unyielding, and where delay in the first stage occurs from this

cause. In these cases it was formerly the practice to administer tartar emetic in nauseating doses. This, though often very efficacious, is objectionable in several respects; it is most irksome to the patient, who for many hours is kept in a state of nausea; then it is liable to reduce the patient's strength, and sometimes gives rise to troublesome diarrhœa; while with respect to patients who are weakly, or in delicate health, its use is altogether forbidden. Chloral, on the other hand, administered in ten-grain doses, at intervals of fifteen minutes, not only gives rise to no discomfort, but sometimes produces refreshing sleep, and seldom fails to induce relaxation of the rigid cervix. The quantity administered in these divided doses should not exceed sixty grains, ten grains being given every fifteen minutes, and a much less quantity is often sufficient.

It is impossible for me, within the limits of an introductory lecture, to do more than name some of the other important improvements which have taken place in the treatment of difficult and complicated cases of labor. Thus I can but allude to the introduction of the cephalotribe, and of the operation of decapitation, which enable us to contend successfully with cases presenting features of the greatest difficulty; while transfusion, as recently practised, has undoubtedly saved lives which would otherwise have been lost.

The advance which has been made in our knowledge of the pathology, and consequently the improvement which has taken place during the last twenty-five years in the treatment of THOSE AFFECTIONS WHICH ARE PECULIAR TO WOMEN, has been, if possible, more marked than that which has occurred in obstetrics. Indeed, I hardly know how to institute a comparison. At the time to which I refer the cervix uteri was considered as being that portion of the uterus which was almost exclusively the subject of disease, and the os uteri being exposed through the speculum, the patient was generally pronounced to be free from any uterine ailment if the lips of the os uteri proved to be free from abrasion, or to be the subject of ulceration if the exposed surface of the cervix was abraded. Now, we are well aware that the body of the uterus, and especially its intra-uterine surface, is far more frequently the seat of disease than the cervix. Formerly the cavity of the uterus was deemed inaccessible to treatment, and the idea of venturing to introduce any medicinal agent into it would have been looked on with horror. Now we, without hesitation, introduce solid nitrate of silver or sulphate of zinc up to the very fundus, while we also apply—not only with impunity, but with absolute advantage—such strong caustics as the fuming nitric acid to all parts of the uterine cavity.

But probably the greatest improvements of all are these which relate to the exploration of the interior of the uterus, and the removal of intra-uterine polypi. Formerly, if from any reason a suspicion existed as to the possible presence of an intra-uterine tumour, we were without the means of verifying our diagnosis, and the patient was in the majority of cases left to linger on till, worn out by repeated hæmorrhages, she sank into a premature grave. But now, by the use of sponge tents, or of compressed sea-tangle, we can dilate the uterus, thoroughly investigate every portion of the interior of that viscus, and, if needs be, remove any abnormal growth which may be found within its cavity.

But tumours are also developed in the structure of the uterus, and such are often incapable of being removed by surgical means. These frequently give rise to profuse hæmorrhage, which it is necessary to control, and this we now know can be effected by the injection of astringent solutions into the cavity of the uterus, or, in some cases, by the hypodermic injection of ergotin; the latter treatment, too, sometimes producing a marked diminution in the size of the tumor. Then, again, in the treatment of ovarian disease, the splendid success which often follows on the operation of ovariotomy would alone suffice to stamp our age as one of great progress in the treatment of those affections which are peculiar to women.

Time does not permit me to follow this subject, further. It would be impossible for me to recapitulate, even in the most superficial manner, all that has been done within the last twenty years to advance our knowledge of the pathology, and to improve the treatment, of uterine diseases, using that word in its most extended sense. My object has not been so much to give you an insight into this subject as to show you how extended it is; and yet I have named but a few out of a host of affections, all of equal importance. Reflect, I beg of you, on how much you have to learn while students of this hospital, and remember how short your time is. Remember, too, that your future rests with yourselves. All things are possible to the diligent. Work now while you are students; but, believe me, your work will not be done even when you have passed your final examinations.

That I stand here to-day is, I believe, due to the fact that early in my professional career I became aware of my own deficiencies, and that I set to work earnestly to improve myself in the knowledge of my profession; and now I find that I am but a learner still. I am aware that while endeavouring to teach you I shall learn much myself. I look on myself as your fellow-student, and I trust we will work together to our mutual advantage, and that we will be able to look back with pleasure on the session which commences to-day as one of great progress and improvement in our common profession.—*Dr. Lombe Athill, Med. Press and Circular.*

HYGEIA, OR, "A MODEL CITY OF HEALTH."

[The remarkable address recently delivered by Dr. Richardson on the above subject at the Social Science Congress has attracted a great deal of attention.—ED.]

The greater part of this address on "A Model City of Health" is taken up with an elaborate description of the manner in which a healthy city ought to be built with the view of ensuring the health of its inhabitants and their perfect freedom from all but a few diseases. The houses are in this imaginary abode, built on arches of solid brickwork, the latter forming so many subways through which the air flows freely, and down the inclines of which all currents of water are carried away. The streets are wide, well paved, and kept so clean that that disgrace to our modern civilization, the mud-cart is, nowhere to be found; and "gutter children are an impossibility in a place where there are no gutters." The chief heavy traffic is carried on by means of underground railways, so that the streets are so quiet as they are clean. There are no cellars or rooms under ground, and the kitchens are on the top floors. The walls of the different rooms are formed of glazed bricks of which the houses are built are perforated with holes which communicate with each other, and the "walls honeycombed in such a manner that there is in them a constant body of air let in by side openings in the outer wall, which air can be changed at pleasure, and, if required, be heated from the fire-grates of the house." Then these fire-grates, the kitchen, the scullery, the dust-and coal-bins, the bath-room, the culinary apparatus, the dormitories, the warming and ventilation of the house, and the arrangement of water, gas, and sewage pipes are all constructed on the most approved principles of hygiene. Nevertheless it appears hospitals cannot be dispensed with. Consequently we find elaborate rules laid down for their construction, so that they are really magnificent buildings, furnished with all the appliances of modern science, and so spacious that each patient has the luxury of a room to himself. Besides these there are numerous homes for little children; and the insane, what few there are, are scattered about in ordinary houses or cottages. There are, moreover, sanitary officers, whose duty is to look after, and, when necessary, analyse, the water, gas, &c.; while under these officers are the inspectors, who again have under them the large staff of scavengers that are daily required to remove the slightest vestige of dirt from this model city. Lastly, Hygeia is "practically a total abstainer's town," in which, as in that of St. Johnsburg, in Vermont, there is no bar, no dram-shop, no saloon, nor a single gaming-hell or house of ill repute, and in which also the last remnants of the tobacconists' shops are rapidly disappearing."

Such are the main features of this imaginary "city of health," and from which, could the dream only be realised and his scheme carried out in its entirety, Dr. Richardson would be able to banish nearly all the diseases that human flesh is heir to Now all must admit that many of the reforms advocated in this address are admirable in their way, and that if brought into operation, as some of them have been already, they would add very much to the health and comfort of the community. But whether the whole scheme so elaborately mapped out and so eloquently described is really practicable, or if practicable, whether it would contribute much to human happiness, and attain even in a sanitary point of view the object at which it aims, is quite another question. In a country and climate like ours it would be a long time before we could get a people notorious for their love of freedom and the insular prejudice to live in such a city as this imaginary Hygeia, with its silent streets and model lodging-houses laid out like a Dutch garden, its stiff, cold, comfortless rooms, its attics converted into kitchens, its firm and rigid temperance, and everything that can remind its inhabitants of the painful care which is being constantly taken of their health. We could scarcely expect the members of a free and independent community to reconcile themselves to the constant intrusion of the analytical chemist and sanitary engineer, to be continually annoyed by their pipes, traps, drains, &c.. getting out of order and then to be prohibited from drinking a glass of wine or smoking a cigar without incurring the odium of their fellow-hygeians.

The difficulty of receiving this address with unqualified approval is owing to its decided partiality. No one could rise up from perusing it without inferring that disease and death are to be attributed almost entirely to dirt, bad drainage, bad ventilation, and the unrestricted sale of intoxicating liquors. The merest tyro. in medicine, however, must at once see the fallacy of this inference, or of any scheme that would lead to such an inference. With regard to bad drainage, defective ventilation, and intolerable filth, no one would deny for a moment, that these are evils the removal of which is not only desirable, but imperative. But may not this rage be carried to extremes? Is man, provided other conditions are favourable, naturally so feeble, his body so sensitive to external impressions, and his power of resisting the slighter and more exceptional causes of disease so impotant that the very presence in his bed-room of "old clothes and old shoes" is injurious to his health, and that he is scared at the least offensive smell, at the closure of a door, or at the sight of a papered or distempered wall?

All this we say in no captious spirit. We gladly allow that this ingenious and original design shows to what a state of perfection hygienic building

might, if necessary, be brought. It shows that the different plans and constructions suggested can, individually speaking, be practically carried out; and what is of more importance, it will do much good by drawing the attention of the public to a subject which they should never lose sight of, and to the means at their disposal for remedying many of the evils to which they are exposed. The scheme is, as we have said, very clever and very ably expounded; but, we repeat, it is deficient in comprehensiveness. Rather too much prominence and rather too much weight are given to the consequences of bad drainage, but ventilation and the like, while little or nothing is said about various causes and conditions which are equally potent as factors of disease, and which, moreover, are inseparable from the present state and habit of society. Into those causes we cannot now enter. Their name is legion. It is they which are at the bottom of all drunkenness, misery, and crime we see around us. Were they absent we might almost bid defiance to a little defective drainage or the temptations of the distillery; and without their removal it is impossible to imagine a perfect "Hygeia."—*Med. Press and Circular.*

CHRONIC BRIGHT'S DISEASE.

The following is a summary of a plan of treatment recommended in Bellevue Hospital.

DIET.

This class of patients should abstain as much as possible from meat. The opinion was expressed that the excessive animal diet accounts for the great prevalence of the disease in this country. Milk should be substituted for meat, and should be associated with lime. Butter may be used: eggs if they agree, and fresh fish in the morning. Fried fats should be carefully excluded, but cream may be taken without stint. Vegetables and fruits are *always* good, but those should be selected which contain the least amount of woody fibre. Rice and potatoes. therefore, may be used, but asparagus, turnips, cabbage, and notably beans, which contain woody fibre in large quantities, should be assiduously avoided. Onions may be eaten with impunity, and are rather beneficial.

FOR THE ANÆMIA.

Iron should be administered from first to last, and by preference, the tincture of the chloride. This preparation is assimilated with difficulty, hence should not be given alone, but combined with nux vomica, aud to this spirits of nitre may be added to assist the determination towards the kidneys. For example, ten drops of the tincture of the chloride of iron, ten drops tinct. nux vomica and one drachm of sweet spirits of nitre may be given three times a day.

Cod-liver oil increases the red corpuscles of the blood, because it is digested by the liver, and the product enters into them as an ingredient. The irritability of the stomach may make it troublesome to take, but it should be relied upon as much as in the treatment of phthisis.

TO COMBAT THE DISEASE ITSELF.

We have one agent which may be regarded as a specific against increase of connective tissue in the body, wherever the interstitial inflammation may occur, and that is the bichloride of mercury. It should be given in small doses, one-twentieth of a grain is the usual size, and should be combined with a diuretic to make it act upon the kidneys. For, example, one-twentieth of a grain of the bichloride, one grain of digitalis, and one grain of quinine may be given three times a day, with the result of producing a specific action upon the kidneys, and will *raise* the specific gravity of the urine.

ATTENTION TO THE CONDITION OF THE SKIN.

will materially assist the embarrassed kidneys, and to do this we may have recourse to two things. If excessive œdema is present, the pressure produced shuts off the circulation to a great extent and prevents removal of the fluid by diaphoresis. It is much better then to make punctures in the distended skin of the legs, and let the water drain away at once. No apprehension need be had with reference to this trifling operation, if the limb, when the punctures have been made, is wrapped with cloths wet in a solution of carbolic acid in water, to which has been added essence or oil of cinnamon. The latter is to correct the smell of the carbolic, and is also equally antiseptic.

The second thing is, to rub the patient all over once a day with sweet oil. If extra diaphoresis is desirable, it can be best obtained by placing a blanket in an empty bucket, pouring hot water upon it, for in this way much less water is required, and then wringing it out an quickly applying it around the body and covering it with a dry blanket. The skin should be well oiled before the blanket is applied.

Such was a brief outline of the general treatment for this class of cases, and may be suggestive in certain particulars.—*Med. Record.*

NORMAL OVARIOTOMY.—That "normal ovariotomy" means the extirpation of the ovary when in a normal condition, no one would be likely to guess

But the term has so been applied by Dr. Robert Battey of Georgia, who was "interviewed" recently by Drs. Yandall and McClellan of Louisville for the purpose of obtaining his views on the subject. The result of the interview appears in the *American Practitioner* of August, 1875. The

operation was first suggested to Dr. Battey by the case of a patient, a young lady of twenty-one, "who had no uterus," to quote his words, "but with an active menstrual molimen, whose heart was broken down by the strain upon it in the monthly vascular excitements which were unrelieved, and of which she died. It occurred to me," he continues, "that if I could but have divested her of her ovaries, the balance would have been restored." This strikes us as a vague and indirect way of stating the case, but we will let it pass. His first operation was by abdominal section, but afterwards he employed the vaginal incision, after the manner of former operations. He considers the process applicable "to any grave disease which is either dangerous to life or destructive to health or happiness—which is incurable by any recognized resources of our art, and which we may reasonably expect to remove by effecting the change of life." He desires it to be distinctly understood that "he does not propose it for amenorrhea, nor dysemenorrhea, nor nymphomania, nor for any other particular malady, but only for such conditions and cases as are alone curable by the change of life." In other words he removes a "disease or pernicious ovulation," incurable by other means, by affecting the change of life through removal of the ovaries. The instruments employed are, a speculum, vulsellum, rat-tooth forceps, long scissors and bullet forceps. All ligatures are discarded. There is no danger from hemorhage. About an hour is occupied by the operation, which is done deliberately. Ether is employed, and sometimes a little chloroform at the start. "to overcome the smothering sensation often caused by ether." He has performed the operation ten times, with eight recoveries and two deaths. In most cases the ovaries were really diseased, though not to the extent of preventing ovulation. Dr. Battey has abandoned the term "normal ovariotomy," without proposing a substitute. Dr. Sims proposes to call it "Batteyism." Authorities in gynæcology are slow in determing the merits of the precedure. Thomas suggests that it is capable of great abuse. Perhaps the lesson learned by the profession through the hasty condemnation of McDowell's operation, inspires caution in the exercise of judgment in the present case. That much opposition will be encountered by Dr. Battey we do not doubt. He himself appears apprehensive of this, if we may judge from his timidity and circumlocution in language. In declaring expressly that the operation is not intended for nymphomania as constituting in many cases one of those conditions. Clitoridectomy is a safer operation, and has been successfully resorted to in such cases; and yet it has been discarded. We have not forgotten the fate of Baker Brown.—*Pacific Med. and Sur. Jour.*

HYPODERMIC INJECTIONS OF ERGOTIN IN HÆMOPTYSIS.

Dr. William Pepper, in his "Address in Medicine" before the Medical Society of the State of Pennsylvania, at the session held at Potsville, last June, says,—"In my own experience, I have been led to regard ergot as almost, if not altogether, the most reliable astringent in such cases, although, of course, it fails at times, and some other styptic is found to succeed better. There are also manifest reasons which render it preferable to use ergot hypodermically in this condition, and which, therefore, render this mode of treatment of considerable importance. In corroboration of the powerful hæmostatic effect of ergotin injected hypodermically, I would refer to an interesting case of very serious purpura hemorrhagica in a boy of seven years, successfully treated by Dr. Minich, of Philadelphia (*Phil. Med. Times*, May 8, 1875, p. 502), in this manner. And, finally, I would add that in certain forms of congestive neuralgia, hypodermic injections of ergotin over the course of the affected nerve, or near its point of emergence, have produced prompt and lasting relief. The solutions referred to have been used of very different strength. That which I have found most useful is of the so-called ergotin, in the proportion of about ninety-six grains to f℥i of distilled water, of which Mx, xx, or xxx may be given, representing ij, iv, or vi grains of ergotin, according to circumstances. The injections are painful for a brief time, but have very rarely caused any suppuration in my own practice.—*Med. Student, Va.*

GANGLION TREATED BY ELECTROLYSIS.

A lad, aged 14, referred to me by Dr. Bennett, had a weeping sinew on the wrist. It had reached the size of a large walnut. The patient was fully anæsthetized, and two needles, one connected with each pole, were inserted into the tumor, the positive needle being kept *in situ*, and the negative worked in various directions inside, so as to electrolyze all the internal surface. The operation lasted ten minutes. A small amount of decomposed fluid escaped at the hole made by the negative needle, and the swelling subsided, perhaps about one-third or one-half.

The tumor was dressed with a pad, over which a bandage was tightly drawn. For two or three days there was some inflamation and considerable pain, but in a few days the inflammatory signs disappeared, and the tumor appeared only as a flattened elevation. The result was, therefore, most satisfactory. It may be noticed that the method of electrolysis used in this was similar to that which I have employed and recommended for cystic growths in general; in fact, this weeping sinew was treated

precisely as any cystic tumor, which is the very reverse of the method of working up the base that I use for malignant growths. In cystics of a benign character, when the walls are moderately firm, I *work up the inner or secreting surface* by passing the needle into the body of the tumor, and press the point in all directions against the inner surface. By this method a threefold object is accomplished: the evacuation of the fluid constituents, which of itself alone is of slight moment, and would not avail to cause absorption of the tumor; the artificial inflammation of the inner surface, so that secretion is stopped; and finally the general absorbent effect of electricity upon the inner surface and upon the body of the tumor.

The inflammation excited by electrolysis appears less inclined to extend than inflammation excited by most other causes. I form this opinion from clinical observations simply. In the above case I should have been apprehensive lest the inflammation would extend up the tendon, and perhaps cause annoyance, were it not for this fact, that inflammation excited by electrolytic action is usually circumscribed, however severe it may be.

Hydrocele, if treated by electrolysis, should be treated by this method, and some of the failures and uncertainties attending electrolysis in hydrocele can, I suspect, be explained by the fact, that the treatment has been used with a view only to decompose and evacuate the contents of the sac, while the secreting surface has not been touched. It is true, I admit, that in some cases the irritation caused by introducing the needle, and the action that takes place near it when by chance it may strike the inner secreting surface, may be sufficient to bring about a permanent cure. In one such case of hydrocele in a child, where the little patient would not bear thorough treatment, a single introduction of one needle, and the application of a mild current for a short time by Dr. Sterling, was enough to cause permanent disappearance of the hydrocele, but such results are exceptional, and are not to be expected.—*Dr. Beard in Medical Record.*

How to Prevent Chloroform Asphyxia.—Dr. J. Fleiberg (*Berl. Klin. Wochenschr.*, Sep., 1875,) describes a method of preventing chloroform narcosis. His plan is to dislocate the inferior maxillary bone forward whenever any asphyxial symptoms make their appearance. The best way of producing this dislocation is to stand behind the reclining patient, put both thumbs behind the symphysis and the index fingers on the posterior edges of the rami of the bone, then grasp the maxilla firmly and drag it directly forward. If the patient be under the influence of the anæsthetic—and then only is it necessary to resort to this procedure—the condyle will move forward with a perceptible motion and the entire bone is displaced. As soon as this is done the patient takes a long breath and respiration proceeds without any further difficulty as long as the parts remain in the same position. The author has employed this procedure in more than a thousand instances and has never failed to achieve the desired purpose, namely, the use of chloroform without any unpleasant complications. He believes that the root of the tongue and the epiglottis are dragged forward and thereby the occlusion of the larynx and the consequent asphyxia which is due to the weight of the tongue, are obviated. The same method has been in constant use by Esmarch since 1864; and Langenbeck employed it constantly during the late Franco-German war, and never lost a case from the effects of chloroform.—*Chicago Medical Journal.*

Progressive Pernicious Anæmia, or Anæmatosis.—Prof. Pepper reports three cases of this disease in the *American Journal of Medical Science*, Oct. 7. Case I., was that of a single woman of 26 years, a stout dressmaker, with good family history who had intense anæmia; irregular fever, uncontrolled by quinia; more or less œdema, gastric disturbances, palpitation, hæmic murmurs—"a humming roar audible over the whole skull," especially strong over the longitudinal and lateral sinuses—profuse hæmorrhages from the gums, and, later, somnolence, coma and death. There was no albuminuria, no enlargement of spleen or lymphatic glands, and no evidence of organic disease of any organ. Case II., was that of a man aged 57, who had through life had vigorous health. The disease was ushered in, after some months of somewhat impaired vigor, by a slight sunstroke; jaundice and rapid failure in strength and progressive anæmia followed. There were palpitation, nausea, vomiting, slight œdema, faintness on rising, hæmic murmurs, slight fever, slight emaciation, finally delirium and death. There was no leukemia or affection of the lymphatic glands. There was found slight en largement of the spleen, and fatty degeneration of the heart, liver and kidneys. Case III., was that of a man, an iron founder, slight and never vigorous, aged 50, who had had several times attacks of hepatic colic, with a chronic follicular catarrh of the intestinal canal, which had continued for a number of years. He had suffered for years from a chronic psoriasis of the legs, trunk and arm. The next morning after a hard day's work, he felt weak; from this time there was progressive anæmia and debility, a tendency to syncope, transient œdema, hæmic murmurs, dyspnœa, irregular fever and somnolence. Later there was wandering delirium. There was found a large calculus in the gall bladder with suppuration of the sac; the solitary follicles of the intestines were enlarged; the heart, liver and kidneys were in a condition of fatty degeneration, the spleen was slightly swollen; the lymphatic glands were unaffected. The marrow of the bones

(radius) was made almost wholly of "granular cells, round or nearly so, but varying in size from 1-3500 to 1-2000 of an inch. Many of these cells had a single distinct spherical nucleus; a few were very granular, and fewer contained a single drop of fat. In all cases there had been a great deficiency of red corpuscles of the blood, but no increase of the white ones—the blood had, moreover, the appearance of disorganization. In the first case, death occurred in about a year from the beginning of the attack; in the second, in eleven months; and the third in three months. The author, after a lengthy discussion of the cases and the disease, concludes that, (1) progressive pernicious anæmia is identical with the idiopathic anæmia of Addison, and is not a new disease; (2) it is in reality the medullar form of so-called pseudo-leukemia, (Hodgkin's diseases); (3) the primary and essential lesion in this and analogous conditions appears to be an affection of the blood-making tissues—spleen, lymphatic glands, marrow of the bones—causing defective blood-making. A better name than any heretofore in use ought to be chosen for it, and he suggests *anæmatosis* (*a*, privative, and αιματοσις, formation of blood); (4) the changes in the blood consist of great reduction of its masses, diminution of red without increase of white corpuscles; (5) the other lesions, fatty degenerations, etc., are secondary, and depend on the blood changes; (6) the symptoms are, in great part, explicable by the state of the blood and heart; (7) the disease, once established, is fatal; (8) the remedies affording most relief, are cod liver oil, arsenic and phosphorus; (9) transfusion is only capable of doing temporary good; (10) to be safely employed, the amount of blood transfused should be small, and introduced slowly and repeated at suitable intervals. In the cases reported, all treatment was of no avail, including the transfusion, twice performed in the last case.—*Chicago Medical Journal.*

RETENTION AND EXTRAVASATION OF URINE.—Mr. Teevan read the second half of a paper "On the Causation, Diagnosis, and Treatment of retention and Extravasation of Urine." Out of twenty-four causes enumerated as originating retention twenty usually presented no difficulty in treatment, unless complicated by a false passage, and might be successfully relieved by a small, soft olivary catheter. A false route could be avoided by bending the last half-inch of the catheter at right angles, and rotating the instrument while it was being introduced. By the above method, the heel of the beak was presented to the false passage instead of the point of the catheter. Another way was to pass a medium-sized soft instrument into the false passage, and there leave it, whilst a smaller catheter was passed by its side into the bladder. The cases of retention which caused trouble were those following rupture of the urethra, stone, stricture, enlarged prostate; but even in these instances a soft catheter would easily slip into the bladder. If a soft instrument became plugged with blood or mucus, a whalebone stylet ought to be used to clear it, for a metal stylet was dangerous as it might emerge from the eye of the catheter, and prick the coats of the bladder. If, in a case of retention from stricture, the catheter alluded to should fail to pass, one of Boyer's olivary metal catheters ought to be tried, aided by a finger in the rectum. If it failed, a whalebone bougie with very short beak might be introduced, and a metal catheter open at both ends slid over it into the bladder. Sometimes a piliform bougie, or one of Leroy de'Etiolles' corkscrew bougies might pass where the whalebone had not succeeded. It ought to he borne in mind that retention could usually be relieved by means of a bougie only, for the immediate cause of retention, in very tight strictures, was a plug of thick mucus blocking up the passage. If the above measures failed the patient ought to try to pass urine, and an attempt could then be made to pass a catheter. It would often happen that the catheter would slip in as the patient passed a few drops of urine. Sœmmering's method of injecting the urethra with oil was most useful, as also Cazenave's plan of inserting ice into the rectum. The patient could be put under the influence of ether if the above measures did not succeed. If an operation were required, external urethrotomy without a guide was indicated, but it was a difficult operation and tapping above the pubes with an aspirator was better for those not accustomed to operate. In retention from gonorrhœa, a small soft olivary catheter would pass, but the object was to prevent a recurrence, which could be effected by emptying the rectum with an enema, and then plugging with ice; salines and henbane could be given internally and half a dozen leeches applied to the perinæum, if the patient were young and strong. In retention from various enlargements of the prostate, the "sonde à vis portant un conducteur" would be found the most useful instrument, for it would surmount a third lobe when enlarged, and wriggle round either laternal lobe if hypertrophied. The following instruments would also be found very valuable: 2. The small soft olivary catheter; 3. India-rubber catheter armed with a whalebone stylet; 4. Mercier's beaked prostatic elastic catheter; 5. The ordinary English elastic catheter, used with a stylet, and in the way recommended by the late Mr. Hey of Leeds; 6. The metal prostatic catheter, well curved, and sixteen inches long, very useful when a patient was very fat with a deep perinæum; 7. Mercier's "bicoudee" catheter would pass in those troublesome cases where the prostatic urethra was greatly lengthened on account of a general increase of the gland combined with an enlarged third lobe. If an operation were required, tapping above the pubes with an aspirator

was indicated. In retention from calculus, extraction with a long urethral forceps out to be first attempted, recourse could afterwards be had, if required, to Civiale's curette and Matthieu's urethral brise-pierre. If these means did not succeed, the stone ought to be pushed back into the bladder with a wax bougie, and there crushed. If the stone could not be pushed back, it ought to be cut down and extracted. In extravasation of urine, the great secret of success was to make free incisions, and make them early, as soon as the tissues became brawny. An incision three inches deep was usually required to be made in the median line of the perinæum, and an instrument ought to be passed into the bladder to demonstrate that there was a free passage from thence to the surface. It was perfectly unnecessary to leave in a catheter, as it was only a source of annoyance to the patient. —*Brit. Med. Journal.*

Medical Items and News.

Sir Wm. Temple said: "Soldiers seemed to have the most honor, lawyers the most money, and physicians the most learning."

Sore Nipples.—I have had a large obstetric practice as an English physician, and have never had a bad case of sore nipples. For many years, when the nipples became slightly sore, I at once applied zinc shields; but of late years, instead of allowing the zinc to combine with the lactic acid of the milk, I have applied a preparation of sulphate of zinc and lactic acid (in fact lactate of zinc) and glycerine with starch, between the times of suckling. I think if you try this you will find it unfailing, and not only a "prophylactic," but a specific in the true sense of the term.—Fleischmann.—*The Clinic.*

Rheumatism.—Dr. William Corson has derived much success in this disease with the following:—℞ Phosphate of ammonia ʒiss; Tincture of colchicum seeds, ʒj; Tincture aconite root, ʒij; Smple syrup, ʒiij. M.—Teaspoonful every three or four hours.—*Phil. Med. & Sur. Reporter.*

A Place Without Quacks.—At the opening of the session of the West Virginia Medical Society, Dr. A. L. Knight declared that for seventy odd years the practice of Mason county, in which the meeting was held, had been exclusively in the hands of regular physicians, and that "never in the history of the county's development has an irregular practitioner for any length of time been supported or even countenanced by its respectable citizens."

A General Antidote.—M. Jeannel gives the following formula for an antidote for a number of deadly poisons: Solution of sulphate of iron (D. 145), 100; water, 800; calcined magnesia, 80; washed animal charcoal, 40. These ingredients are kept separate, the solution of sulphate of iron in one vessel, the magnesia and charcoal in another, with some water. When needed the sulphate solution is poured into the last-mentioned receptable, and violently agitated. The mixture should be administered promptly, in doses of from 1.6 to 3.3 ounces. From experiments, M. Jeannel finds that this antidote, employed in proper proportions, renders preparations of arsenic, zinc, and digitaline completely insoluble.

Formulæ for Use in Gonorrhœa (*Le Progress Medical*, November 6, 1875).—In cases of gonorrhœa, when the marked inflammatory symptoms have disappeared or have notably diminished Rollet recommends the following injection:

℞. Liquor. plumb. subacetat., fʒi;
Zinci sulphat., gr. vj;
Vini opii, fʒss;
Aquæ dest, fʒvj.
M. et ft. sol.
Use from three to five times daily.

Unappreciated Doctors.—No honest and industrious physician, be he ever so humble in his capacity, can follow his vocation diligently for a twelve-month in any locality and fail to impress *somebody* with a just estimate of his services. If he will but content himself with the progress made, and continue his efforts patiently and perseveringly, he will surely add friend to friend and patron to patron, until at last peace and plenty shall smile upon his honest and earnest endeavours.

It is no uncommon error for medical men to find the widest discrepancy existing between the esteem in which they are held by the community and the self-estimate of their own capacity. Such men are the victims of a cold, unfeeling world. They are unappreciated by the public. They become per consequence soured with the world, and very naturally resent the injustice, the blindness and ignorance of mankind, who fail to discern their supposed merit and capacity. We verily believe that these professional, self-constituted martyrs to the coldness, blindness, and ignorance, which surrounds and engulfs them, are but too often the architects of their own mal-fortune. Nobody chooses a soured misanthrope for his companion; nobody takes a mountain of self-conceit for his bosom friend.—*Atlanta Journal*, Dec. 75.

Tapeworm Treated by Balsam Copaiba.—Dr. Caro presented a tapeworm fifty-three inches long, which had been expelled from a male patient under somewhat peculiar circumstances. The gentleman had been suffering with symptoms of tapeworm for a number of years, during which time he had made trial of all the usual remedies for their

relief. Last September he applied to Dr. C. for the treatment of a gleety discharge. Balsam copaiba was prescribed in large doses (ʒss every four hours until the bowels were freely evacuated). The first dose had the desired effect, and to his surprise the worm was evacuated entire. Dr. C. was not aware that this remedy had ever been used before with such a result. Dr. Briddon had never failed in the treatment of the tapeworm by the use of ethereal extract of male-fern. His usual plan was to administer the black draught, followed for twenty-four hours with nothing but beef tea; then from a drachm to two drachms of *ethereal* extract of male-fern, and twelve hours afterwards a dose of castor oil.—*Medical Record.*

THE BRITISH MEDICAL DEFENCE ASSOCIATION.—At a general meeting of the members of this association held on the 10th inst., Dr. B. W. Richardson, F.R.S., was elected president of the association for the ensuing year; Dr. Alfred Meadows, and Mr. James R. Lane, F.R.C.S., were elected vice-president; and Mr. George Brown, hon. secretary. The further election of officers was postponed until Tuesday next, when the members will be asked to elect three more vice-presidents; twenty members of council and a prosecuting committee. We are pleased to observe that the *Lancet*, *Medical Times and Gazette*, and *British Medical Journal*, have published articles strongly approving of the objects of the association.

SULPHO-CARBOLATE OF SODIUM AS A PROPHYLACTIC IN SCARLATINA.—Dr. W. Scott writes to the editor of the *Medical Press and Circular*:—Without, on the present occasion, entering into the interesting question of whether the minute particles of living matter which constitute disease germs consist of animal or vegetable bioplasm, or the various other difficult points regarding the nature of the poisons of infectious diseases, I am desirous to direct the special attention of practical and thoughtful men to the use of the sulpho-carbolate of sodium, both as a curative and prophylactic agent in the treatment and cure of scarlatina. So far as I am aware, there has not been that general attention given to the subject which its vast importance demands. Mr. Crookes, Dr. A. E. Sansom, Dr. Brackenridge, perhaps others, deserve well for what has been already effected, and, so far as my experience goes, I can fully confirm their testimony; but unless a considerable number of the medical profession attend to the matter, noting cases and briefly publishing results, little partaking of certainty can be reliably settled. In scarlet fever, diptheria, and measles, the sodium sulpho-carbolate may be given in doses varying according to age, from five to thirty grains four times daily, and in a mixture with simple syrup or other such ingredient is in no way disagreeable. An extended trial is the all-important point at present, and for this time I need only say that I have seen the use of the above-named preparation followed by results far exceeding my most sanguine expectations, both in a preventive and curative point of view.—*Medical and Surgical Reporter.*

PAINFUL MENSTRUATION.—Dr. Baker, of Norristown, has found the following formula, given a week or ten days before the menstrual period, to yield almost sure relief in painful menstruation:—

℞.	Pil. ferri carbonat,	ʒiij	
	Ext. conii mac.,	ʒijss	
	Ol. cinnamom.,	♏xxx	
	Syr. tolutani,	ʒij	
	Syr. simplici,		
	Aquæ,	*aa* ʒvij.	M.

Sig. A Tablespoonful four times a day.

What is called "the obstetric hand" appears on some ancient English coat-of-arms. The "obstetric hand" is a right hand, with the little and ring finger doubled down, and the fore and middle fingers extended, as if about to perform the act of examination, which the French call *toucher.*

PROPHYLACTIC IN CHOLERA INFANTUM (*New York Medical Journal*, December, 1845).—The numerous cases of gastro-intestinal catarrh occurring in small children during summer preponderate among such as are fed with the bottle. The various kinds of treatment adopted by physicians have not proved very successful: hence a prophylactic against this disease is of great value. As the affection originates in the nourishment of the infant. Jacusisl (*Berlin. Klin. Wochenschrift*, 1875) has been led to add two tablespoonfuls of a one-third per cent. solution of salicylic acid in water to the daily allowance of milk, with the effect of rendering the germ of the disease powerless. The children fed in this manner have not had gastro-intestinal catarrh, or suffered any inconvenience from this rather free use of salicylic acid. The remedy is harmless and also inexpensive.

TREATMENT OF CROUP.—Dr. Lesdorf, says the *Doctor*, contributes the following treatment of croup:—At the outset an emetic is to be given, sulphate of copper in small doses every quarter of an hour (until vomiting is produced) being the best; after vomiting, the copper is to be given every two hours, in doses of one-eighth to half grain. The dyspnœa generally ceases after vomiting has once occurred. The administration of copper is to be continued for a day or two until the dry whistling cough has changed its character. A cold compress is to be applied round the neck immediately after vomiting. If the dyspnœa seems not to yield, a vapor bath is to be given, as follows: a wooden vessel, containing eight to ten quarts of hot water, half to three-quarters of a pint of vinegar, and a handful of meal, is to be placed at the foot of the

child's bed; a quilt is then to be suspended over the bed, so that one end is to cover the vessel, and the other so arranged that the vapor, in escaping, must pass over the child's head. A red-hot iron is then to be placed in the vessel, and left there so long as it develops the hot acid vapor. This bath is to be repeated every two hours, night and day, while there is any danger. The very best results may be anticipated from this method of treatment, and operative interference, even in acute cases, may often be prevented by energetically carrying it out.—*Medical and Surgical Reporter.*

TREATMENT OF RINGWORM.—In the *Lancet* of Nov. 20th, is a notice of the treatment of ringworm by means of a solution of boracic acid, as recommended by Surgeon-Major Watson. Dr. Welsh says: The plan he has adopted for many years is quite as simple, more easily applied, and requires no precautions as to the parts being prepared, or care taken that they should afterwards be allowed to dry, that the acid be not rubbed off. Practising among a class where the disease appears frequently, it has been his method to paint the parts affected with the ordinary tincture of iodine. The brush is brought not only over the spot, but a little beyond the margins. This he does on three successive days, and then orders the patient to appear a week after the last application for inspection. Not in one case in a hundred has he to repeat the application.

PUNCTURE OF THE PERICARDIUM.—The following case is reported in the *Archives Medicales belges* by Dr. Villeneuve: A child, five years old, was suffering from pericarditis with effusion. According to the statements of the parents, the trouble dated from a fall two months before, soon after which the breathing began to be affected, the legs swelled, and the condition grew gradually worse. When the patient was seen, the symptoms had become very alarming. The face was swollen and mottled, the eyelids were œdematous, the lips cold and livid. There was also considerable œdema of the legs and scrotum. The pulse was too feeble to be counted, and auscultation failed to discover any cardiac sounds whatever. A fluctuating swelling, which undulated synchronously with the respiration, occupied the præcordial region. Respiration was short, labored, whistling, and accompanied with pulsation of the jugulars. The case appeared desperate, and no medical treatment offering any prospect of success, it was resolved to interfere surgically. A Dieulafoy's aspirator was procured, and the tumor having been punctured at its most prominent part, two syringefuls of clear, yellowish fluid were withdrawn. The fluid continued to flow in a stream after the canula was removed, owing to the fact that the repeated application of blisters to the part had so thinned the skin as to prevent the edges of the wound from closing. With the aid of plasters, compresses and bandages, however, the aperture was finally closed. The result of the operation was a very marked relief of the child's asphyxiated condition; the heart-sounds could be heard again, and the pulse could be counted. The wound continued open and discharging for six months. The discharge was at first clear, and afterwards became purulent. The fistula finally healed, and the patient made a complete recovery. —*Med. Record.*

RESECTION OF THE STERNUM.—Professor Costanzo Mezzoni reports, in the *Bulletin general de thérapeutique*, five cases of resection of the sternum, together with adjacent portions of the ribs and costal cartilages. In the first case the operation was performed on account of a large tumor situated in the middle of the sternum. The tumor was adherent to the bone, was painless, hard, and at certain points presented a sense of fluctuation, but further than this its nature is not stated. The sternum was removed entire, together with portions of the costal cartilages of the second, third, and fourth ribs, exposing the pleura of the mediastinum and the pericardium. The dressing consisted of charpie, which had been dipped in phenic oil and the permanganate of potassa. At first the case did well, the wound presenting a healthy granulating appearance, but fifteen days after the operation the patient succumbed to a hypostatic pneumonia. In the other cases the operation was performed for caries of the bone, occurring in scrofulous subjects, and in each instance the patient recovered.—*Med. Record.*

TUMOR IN THE BRAIN WITHOUT CEREBRAL SYMPTOMS.—Our readers have been informed that the death of J. Hughes Bennett was the result of the operation of lithotomy. But a curious fact was developed on examination of the head, namely: a tumor about the size of a hen's egg, on the right side, between the dura mater and the brain. The curious part of it is that he had never suffered from any symptoms indicating lesion within the cranium.—*Pacific Med. Journal.*

ABNORMAL DEVELOPMENT OF THE BREAST IN THE MALE—A. B., aged twenty-one, ordinary seaman, was admitted into the Royal Naval Hospital, Hong Kong, on May 14th, 1875, with what was said to be a chronic enlargement of the right breast. On examination, the right mamma presented, in size and conformation, the appearance of the well-developed breast of a full-grown woman, lobulated, with an enlarged brown-coloured areola. The nipple, however, corresponded in size with that of the left breast. The man states that he first observed the right breast to be larger than the left about the age of sixteen and a half years. Since that time it gradually increased in size until it attained its present dimensions. There has been no kind of secretion from the nipple at any time. The genital organs are fully and well developed.—*Lancet.*

THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science

Issued Promptly on the First of each Month.

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Advertisements inserted on the most liberal terms. All Letters and Communications to be addressed to the "Editor Canada Lancet," Toronto.*

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; J. M. BALDWIN, 805 Broadway, New York, and BALLIERE, TINDALL & COX, 20 King William street, Strand, London, England.

TORONTO, FEB. 1, 1876.

TYPHOID FEVER.

The secular press in different parts of the country with a wise forethought that cannot be too highly commended, have of late been profitably discoursing on the necessity for the general diffusion of a knowledge of Sanitary Science, and the immediate practical application of such knowledge in improved sewerage, and disposal of sewage, as also in a water supply unladen with decomposing excreta—pointing out as the inevitable result of a neglect of such precautionary measures, enteric or typhoid fevers, and other ailments of the zymotic class. As the etiology of enteric fever has long been the occasion of much debate, and at the present time public attention is in a measure directed to it, we will very briefly review the opinions of writers on this subject. Typhoid or typhus *mitior*, may certainly be considered an objectionable nomenclature; Dothinenteritis, as proposed by Bretonneau, would be better as pointing to the intestines as the seat of disease. It cannot be demonstrated, but it appears more than probable that some of the febrile poisons whether originating in animal, vegetable, or atmospheric miasmata operate on particular structures, and that these structures are to some extent determined by the season of the year; at some the mucous membrane of the air passages is affected, giving rise to catarrhal symptoms; at others gastric and enteric symptoms form the prominent character of the fever. Intestinal affections are not only more common at particular times, but occur in a larger proportion of cases in some localities than in others. A very interesting question in the study of fever, arises as to the manner in which the blood and the various organs become affected. Is the morbific influence conveyed to the secreting and other organs, by means of the blood, or the organic nervous system, or by mere continuity and contiguity of surface and structure? And is the blood itself affected by the direct contact of a poison, or by nervous influence, or by failure of the excreting processes? Dr. Copland says on this subject, "It would be interesting to trace the manner in which the different systems of the frame became affected during the progress of various fevers. There is a certain class, for instance, that has been called periodic fevers; others typhoid fevers; and others pestilential or malignant. Periodic fevers arising from malaria would seem to implicate the organic nervous system primarily, and the fluids and abdominal viscera secondarily. If we proceed to the consideration of the worst forms of fever, typhus or pestilential fever for instance, not only is the nervous system affected (the organic nervous system probably the first to be impressed with the cause of the disease), but the blood itself quickly becomes disordered. Now the question is, whether the change produced so early in the blood arises primarily from the absorption of the cause, or whether it arises from the morbid impression made on the organic nervous system, owing to which impression the excreting or depurative functions which are under the influence of this system, are impaired or arrested, and the circulating vessels and fluids become affected, and ultimately changed? We find that, in the progress of fevers the blood becomes changed; and the change may arise partly from the impressions made by the emanations causing the fever upon the organic nervous system, and partly from the absorption of the emanation—of the morbid poison—into the circulating mass. The morbid effluvium being received into the lungs with the air, injuriously affects the organic nervous system supplying these organs—hence the blood in the lungs is not sufficiently changed." In the "Archives Generales de Medicine" for July, 1829, Dr. Bretonneau has an article asserting the contagiousness of typhoid or dothinenteritis, as he terms it—Chomel, Gendron, Louis, and a host of other French physicians incline to the same opinion. Liebermeister asserts, that the opinion that typhoid may be purely contagious, and capable of being transmitted directly from person to person is not founded on actual observation. Griesinger rather inclines to the belief of a direct contagion. Murchison considers that the poison of typhoid originates in the decomposition

of organic substances, and proposes the name of pythogenic fever. According to this hypothesis, the specific products of decomposition depend on the particular substances which are decomposed, and for typhoid to result the substances decomposed must be animal. Others hold to the view, that typhoid originates in the decomposition of organic substances only when these decomposing substances are mixed with the germs of the specific typhoid poison, and when these germs grow and multiply. Dr. Budd is considered to have satisfactorily demonstrated that the living human body is the soil in which this specific poison breeds and multiplies; and that the specific process which constitutes the fever itself, is the process by which the multiplication is effected. The question then arises, What are the substances derived from diseased individuals which act as transporters of the poison? Evidently these substances are to be looked for in the excrements. But it may be questioned, whether such excrements contain the poison while still in their fresh condition. The poison in order to become active, has to go through a certain stage of development outside of the body. This development can take place if the dejections are left to themselves, as in dirty linen; but it seems to go on more abundantly, if the dejections are collected in privies, sewers, or earth already saturated with organic substances. In this way it can be explained how a typhoid patient, who comes to a house or region previously free from the disease, can establish there a focus of infection from which many other persons become diseased, (see Liebermeister's article on typhoid). For preventing the spread of this fever, Dr. Budd recommends a reliance on chemical agents believing that by subjecting the discharges on their issue from the body to their action, they may be entirely deprived of their specific virus. He suggests the following details:

1. All discharges from the fever patient should be received on their issue from the body into vessels containing a concentrated solution of chloride of zinc.

2. Two ounces of a caustic solution of chloride of zinc, should be put in the night stool on each occasion before it is used by the fever patient.

3. All tainted bed or body linen should immediately on its removal, be placed in water strongly impregnated with the same agent, and the water closet flooded several times a day with the same.

In our opinion chloride of lime is also a most valuable disinfectant in the above disease. When spread upon the excreta, or saturated earth, or thrown into privies, or placed in pans in the sick chamber, it not only disinfects the substances with which it comes into contact, but also evolves a certain amount of chlorine which has the effect of destroying any germs that may be floating in the atmosphere.

SENNA IN REMITTENT FEVER.

The science of therapeutics is making rapid strides in three different directions. Besides the addition of new drugs to the catalogue of the Materia Medica, therapeutists are making advances in the particular knowledge of the properties of new and common medicines, and also in defining the particular uses and value of remedies in certain states of disease. It is a fact, of which perhaps we might readily lose sight were it not for the reminders that are furnished by the medical journals, that even old remedies may be found to have a definite value in particular states of disease. For example, we might instance the particular value of such old remedies as aconite, digitalis, mandrake, opium, and the phosphates, as recent contributions to the science of special therapeutics. Ringer and others have informed us of the exceeding value of aconite in inflammations and in neuralgia; Fothergill and others have related the *tonic*, as contra-distinguished from the *sedative* action of digitalis; and so also with other articles that have held a time-honored place in the Materia Medica. It is with a view to call attention to the particular value of senna, as a derivative in certain conditions of remittent fever, that we submit the following.

There is a time in the training and experience of every practitioner when he fixes for himself the value of the drugs he uses, and when he comes to employ them readily and confidently in the treatment of particular cases. This is the knowledge and aptness which "experience" confers, and upon which the public place so high an appreciation. It is a kind of knowledge which may come sooner to some men than to others; and, popular notions to the contrary, it is a species of knowledge which may be acquired by reading the contributions of writers who have worked out the facts in their own experience. It is possible in these days of a prolific medical literature abounding with clinical

histories, for a diligent young practitioner to acquire an "experience" greatly beyond that of his own sphere.

A few years ago, we were induced to read every accessible author on the subject of remittent fever. The object of this research, was to ascertain the best means of combating the head symptoms which are apt to arise in the severer class of cases, and which are so dreadful in their portent, because if not watched for, and controlled at the outset, there is great danger of the case passing on into an unmanageable form, the typhoid state occurs, and the patient's condition becomes extremely critical and hopeless. It was in the course of this reading that the value of senna, as an aperient and derivative first became an active impression, afterwards satisfactorily tested in practice. For the relief of cerebral tension, as manifested in the headache, pain, confusion of thought, and delirium arising in remittent fever, there is no aperient equal to senna. The very property that has led to its being so generally discarded in modern practice, namely, its tendency to gripe the bowels, probably constitutes its efficiency as a derivative. Observation has shown, that by employing senna as a purgative in remittent fever, pain in the head may be removed, delirium banished, the case rendered more manageable, and the system become more amenable to the anti-periodic properties of quinine. We had fully settled on this practice at the time of the outbreak of the Ashantee war, when it became an active question to determine the best way of treating African remittent. It was then that the surgeon of an African west coast mail steamer suggested the exhibition of quinine in an infusion of senna, as most suitable to the African type of fever; and accordingly the wholesale preparation of senna tea and quinine began in the floating and army hospitals. This strong confirmation of the value of senna, more than ever strengthened our conviction of its efficiency. The indications of its employment are, pain in the head and all the other symptoms indicative of cerebral disturbance. No matter that the bowels may be supposed to be open enough, if pain in the head occur, or if there be still more serious head symptoms, give senna to active purging, when it will be found that the head symptoms will abate, the fever will be reduced (as tested by the thermometer), and the hopeful sign of a lengthened duration of the remission, will set in. Conjoined with the employment of senna as a derivative with this special object in view, the early application of a blister to the nape of the neck, is of great service in overcoming stupor and cerebral oppression.

The prevalence of remittent fever in all the lake, coast and paludal districts of Canada, lends importance to the subject of its treatment, and gives value to the apparently trivial suggestion of selecting a particular cathartic for employment in this disease. But, in truth, the trivality is only apparent, for it is just by the accumulation of such suggestions that the advancement of therapeutics is accomplished.

CIMICIFUGA IN MENORRHAGIA AND UTERINE DEBILITY

In the treatment of female patients, every physician of extended experience, will recognise the great frequency with which cases of uterine difficulty are met with, in which there is freedom from organic disease of the uterus, but which appear to depend upon an atonic condition of the organ with a predisposition to congestion of this and the neighbouring viscera. In our experience, this class of cases has been very numerous, and during the earlier years of our professional career, peculiarly discouraging and vexatious. Hemorrhages from the uterus are unhappily of very frequent occurrence, and when uncontrolled, are liable to lead to permanent debility, or to other very untoward results. The uterus appears to be very prone to congestion which may be relieved by correspondingly excessive menstruation. It appears to be due to irritability as much as anything else, when not dependent upon any morbid changes going on in the organ. It is usually accompanied with excessive nervousness in the patient amounting in some almost to hysteria, while in others it may present the form of nymphomania. Any plan of treatment therefore which may give us pefect control of this class of cases, cannot fail to be valuable to the general practitioner.

In the remedy cimicifuga (actæa racemosa) we have an agent possessing a peculiar affinity for the uterus, and one which is also capable of removing irritability of the organ, while it acts as a neurofibrous tonic, producing contractions of its fibres, not spasmodic like ergot, but lasting and continuous.

It is also sedative and proves to be a very decided hæmostatic agent in uterine hemorrhages. The value of such a medicinal agent can hardly be overestimated, and especially so when combined with other agents capable of increasing its efficiency. In cases of general debility of the organ, an admirable combination is with quinine, which has a special nervine tonic influence on the uterus or plexus of nerves supplying it; with sulphuric acid as a valuable astringent addition in uterine hemorrhages, and with cinnamon, in the form of tincture, which, in this combination, proves a valuable hemostatic. So we prescribe the tincture of cimifuga in 15 to 20 minim doses; the quinine to suit the patient's condition; the sulphuric acid (aromatic) in x ♏ doses; the tincture cinnamon in ʒ j. to ʒ iv. doses, and thus we get a combination admirable in its action, and safe and unobjectionable as a remedy. Our observation and experience lead us to put much confidence in it, and we have had no reason to complain of its results in those cases treated with it in combination as above given.

In view of the characteristics presented in most cases of simple menorrhagia, and the prostrated, debilitated, and emaciated condition which results, we believe it to be principally dependent upon uterine relaxation, and as such we think the indication is fully met in the cimicifuga. Iron and its preparations will not do it, their specific action over the uterus is to produce and promote congestion of the organ. Ergot is not a tonic at all, but is merely spasmodic in its effects, leaving the fibres of the uterus more relaxed. Mineral acids and quinine are astringent and tonic to the general system, but lack the elective affinity which gives to cimicifuga its special value in uterine hemorrhages. Cinnamon is a valuable hemostatic and as such is in great favor in this class of cases among some physicians, but it lacks permanence in its effects not being possessed of tonic properties.

The cimicifuga is a good arterial and nervous sedative, and as such is valuable in a congested condition of the organ, and in hysteritis with the peculiar nervous excitability and irritability which accompanies any uterine disturbance, while in debility of the uterus—a very common complaint—it is valuable from the universal verdict of those, at all acquainted with its properties in that it has a special affinity for, and is a special stimulant to the uterus.

Our attention was first directed to this remedy by a narrative of its beneficial effects among slave women in the South, given by a fugitive and rebel who had escaped to Canada as a Southern refugee. He had been possessed of a large plantation in Louisiana, near New Orleans, and employed a goodly number of people in its cultivation.

The habit of miscarriage was regarded as a serious matter among slave owners, and the enfeebling effects of uterine hemorrhages were considered in their pecuniary sense as a serious loss in view of the incapacity and loss of labour which they occasioned. However, he said the "granny" of the negro quarter knew what to do in such cases, and would collect the root of the cohosh, and having made a strong infusion of it, would administer it with remarkable results. It was claimed by him that miscarriage was principally due to debility of the uterus, although some untoward circumstances might prove an exciting cause; hence, to prevent miscarriage or overcome the habit of aborting, a protracted use of the remedy was necessary, and self dom failed in securing the desired results.

Cimicifuga, in the form of tincture, seems to be the most desirable preparation, as the alcohol dissolves effectually the gummy extract in which the therapeutic value seems to reside. The following will serve as a general model, on which the combination mentioned may be prescribed:—℞. Quiniæ sulph. grs. viij.; Acid sulph. aromat, ʒiv.; Tinct. cimicifuga, ʒiv.; Tinct. cinnamomi, ad ʒ iv.—M. Sig.—Two teaspoonsful three times a day. As a substitute for ergot in flooding, it may be administered in ʒss. doses with sulphuric acid (dil. or aromatic) repeated every hour or two as the urgency of the case may demand. Numerous cases could be placed on record to illustrate and establish the beneficial action of this drug, but we forbear as a trial is sufficient.

Cimicifugin, the active principle, is given in doses of one to three or four grains as a nervine tonic and sedative, and has been recommended (besides in uterine affections and protracted labour as a substitute for ergot) in nervous and rheumatic affections, as chorea, epilepsy, sciatica, lumbago, acute and chronic rheumatism, and in bronchitis and pulmonary affections. Its usefulness in hysteria and uterine affections due to weakness, is of the most marked description. No remedy has been so much neglected and overlooked, and yet none is more thoroughly deserving the confidence of the profession.

TORONTO GENERAL HOSPITAL.

ALTERATIONS AND IMPROVEMENTS.

During the past year various changes have taken place in the internal economy and management of the Hospital, which will, no doubt, be of interest to many of our readers.

The improvements and changes are not all completed, but meantime it will be convenient to note several of the alterations which have been made and hereafter to refer to others as they may be decided upon or perfected. And we may premise that as to the more important repairs, they could not have been carried out had it not been for two legacies, amounting together to about $16,000, which were bequeathed to the Hospital without any condition as to the use to which the funds were to be applied. Notwithstanding the debenture debt of the trust, ($53,000 bearing an annual interest of $4,240, which absorbs about half of the net income accruing from the properties held by the trust) the trustees decided that these legacies should be exclusively devoted to permanent improvements in the Hospital buildings.

Formerly the Hospital had been heated by ordi nary wood stoves, which entailed much labour and expense, and gave an unequal heat. It was resolved to heat the building by steam, although the cost will be about half of the amount of the legacies. Still it was so important to get sufficient warmth in all parts of the wards and to have an uniform temperature day and night, that the trustees did not hesitate in adopting steam in preference to using hot air or hot water. The degrees of heat contracted for are 65° in the wards and 70° in the corridors when the thermometer is at zero. Arrangements for a better ventilation have also been made, but it is to be regretted that in the contract a plan, by which thorough ventilation could have been secured through the present chimney shafts, was not adopted.

The second important improvement has been the erection of a set of new water closets and baths, in the rear outside angles of the building, ready access being had from each of the principal wards to a separate closet, giving greatly increased comfort and cleanliness; while new pipes of full dimensions will secure a thorough flushing and removal of everything without delay. Those portions where the old closets were will be re-floored, and made into bedrooms for nurses. It is also decided to make other arrangements by which two or three more wards can be obtained, so that there will then be about 200 beds available for patients.

A new cooking range, of the best kind, capable of cooking for 300 persons has been purchased. Formerly meat was supplied by contract, cut up into pieces. This system led to great abuse in an undue proportion of bone and inferior pieces. Now the contract requires beef to be furnished in quarters, (an equal number of fore and hind quarters) which insures proper proportions of the better pieces. Other kinds of meat are also supplied, so that the diet is varied from day to day as far as practicable. A steward was appointed in June last, and now the quality of all the supplies, meat, bread and milk, is closely watched, and inferior articles are promptly rejected. It can now be said with truth, that the Hospital is properly warmed, better ventilated than formerly, that the food is of good quality, properly cooked, and varied as far as practicable.

The trustees have also arranged two large rooms under the "Theatre" for the reception of out door patients, of whom there are many each day. Entrance to these rooms is through a separate door in the rear of the Hospital, and the students now enter by the same door and get to the theatre by a new staircase leading directly to it. These arrangements greatly facilitate the work of the Hospital with the "externs" and prevent an inconvenient crowding of the main entrance and corridor. The operating theatre is also comfortably heated, and will be furnished with hot and cold water, sink, and other conveniences.

Of one important change in the Hospital regulations our medical readers in the country should be fully informed. We allude to the new regulations regarding free beds, which took effect from 1st of July last. When the new trustees, appointed by Government in January last, were specially directed to look into the causes why the average cost of each patient in the Toronto Hospital for the year 1874, so largely exceeded the cost at every one of the other hospitals in Ontario, they found that a principal cause was the erroneous practice as to free beds. Formerly it had been an understood thing that the Hospital maintained 50 free beds, and the rule had been that patients got upon the free beds in priority of date of admission, and in

about six weeks, without reference to whether they were paid for by a municipality or by friends, or by no one. This might possibly have been nearly a correct calculation as to time when the patients in the Hospital did not average more than 100 during the year; but of late years it was found that instead of 50 there were upwards of 80 patients for whom no one was paying a cent. The whole system was investigated, and its errors were established; but it was thought well, in order to prevent any ground of complaint, on the part of those then in the Hospital, that all patients at 30th of June should be treated according to the old rules about free beds, wrong though these rules were, but that with respect to all patients admitted after that date, every one must be paid for by some municipality or individual while in the Hospital, until the non-payment list was reduced to fifty. The trustees will always keep the 50 free beds occupied, but they reserve to themselves the right of nominating to those beds such deserving sick and friendless persons as may come under their notice, after due investigation into each case. It has been subsequently seen that of 152 patients in the Hospital at the 30th of June, 74 were still in it at the end of August, and it was only recently that these were reduced to about 50, while other cases admitted since June, where friends had ceased to contribute and where the patients could not be discharged, helped to keep up the number of non-paying inmates. But the new plan while it is undoubtedly correct in principle, (viz.: that all who are able to pay, must be paid for,) will eventually bring the cases to what they should be, and give the trustees the opportunity for admitting the friendless, deserving sick, for whom no provision formerly existed.

A Bill has been introduced into the Ontario Legislature at its present session giving the trustees power to receive subscriptions from individuals, for the yearly maintenance of more free beds, to which purpose these contributions are to be exclusively devoted. It is believed that under new management, the cost of a free bed can be reduced to $150 per annum. On this basis one, two, or three persons can pay for a bed, and have the right of nominating thereto any respectable sick person, from time to time as it becomes vacant. If that right be not exercised for a week after the person or persons have been notified that the bed is vacant, the trustees may appropriate the bed to some sick person; but the parties shall be apprised of each successive vacancy. Subscribers may also define any special disease, such as rheumatism, paralysis, consumption, &c., and direct that their bed be held exclusively for the use of persons suffering from that special disease. And it is intended that these subscribers shall annually elect from amongst their number a Trustee who shall be a member of the Hospital Board. It is believed that the public will thus be induced to take more interest in the Hospital than has been customary.

In the Bill alluded to, power is asked to add to the medical staff, and to make provision for substitutes or assistants, when members of the staff find it inconvenient to attend. New regulations will be adopted after the Bill has been passed, and conferences have have been held between the trustees and the staff. The basis of the rules will probably be that every patient shall be visited by some medical man each day; and that visitation of the patients shall be facilitated by such grouping of the patients of each member of the staff as can be conveniently carried out.

As was mentioned last month the former Resident Medical Superintendent, Dr. McCollum, has resigned, and commenced practicing in this city. His successor is Dr. Charles O'Reilly, formerly in charge of the Hospital at Hamilton, whose management of that Hospital, for many years, has elicited the well-merited encomiums of Mr. Inspector Langmuir. He brings to his new sphere of duty, great experience and a love for the work, and under his management of its medical and sanitary economy we predict for the Toronto Hospital a future of much usefulness.

A Piece of Pipe stem in the Bladder.—T. S., æt. 40, labourer, of healthy parentage; generally robust, but somewhat intemperate in his habits, was admitted into the Hospital, suffering from symptoms of stone in the bladder. He states that some years ago when in a state of intoxication some of his comrades, (as he was afterwards told,) as a practical joke, had passed a pipe stem into his urethra, and that a portion of the stem had broken off or separated, and passed into the bladder. His statement was scarcely credited, but as the symptoms were urgent and the presence of a stone was detected by the sound, it was decided to operate. Lithtority was at first spoken of in connection with the case, but owing to irritability of the bladder and to the large size of the calculus, it was abandoned and lithotomy resorted to instead. The operation was performed on the 22nd ult., and a large calculus removed. The calculus measured about two inches and a half in length, and one inch and a quarter in its greater diameter. A portion of one extremity was crumbled away by the application of the forceps in its extraction, and sure enough here was the extremity of the mouthpiece of a pipe fully exposed in the interior of the calculus. It would appear that a pipe-stem with a bone mouthpiece jointed on had been introduced by his foolish comrades, and that in withdrawing it, the mouthpiece

had been detached and found its way into the bladder, or had been actually pushed into the bladder, by their foolish manipulations.

STRANGULATED INGUINAL HERNIA IN AN INFANT.—Dr. Woodbury reports in the *Medical Times*, Philadelphia, a case of strangulated inguinal hernia in an infant two days old. The child was born asphyxiated and some difficulty was experienced in establishing respiration, but after this it continued to fret as if in pain. Upon examination a hernial tumor the size of an orange was found in the right groin. Taxis was tried, and repeated several times, with the aid of the warm bath and opium, but without effect. Ether was then administered and the operation performed; the stricture, which was at the internal abdominal ring was divided and the bowel returned, after which the opposite walls of the canal, and also the external wound were brought together with sutures and a radical cure, with rapid recovery of the patient, was the result.

IMPROVEMENTS.—As will be seen, we have lately completed arrangements that have been in contemplation for some time, for addressing the *Lancet*, which will enable subscribers to receive it, 2 or 3 days earlier than usual. The names and addresses of subscribers are printed on slips, and pasted on the wrapper by a machine for the purpose. This label slip also shows the date up to which the subscription has been paid, so that subscribers can see at a glance how their accounts stand, from the date on the label slip. The names of some long in arrears, and of a few who may be considered new subscribers, but who have not yet remitted the amount of their subscription, have not been printed. As soon as we hear from them we shall have their names printed also, and thereby enable them to receive the *Lancet* at the same time as the others.

LARYNGOSCOPY.—We understand that Dr. Bessey of Montreal, is making Laryngoscopy and diseases of the throat and chest a specialty. He also devotes a portion of his time to private instruction in the use of the Laryngoscope, and the preparation of medical students for their professional examination. He is very successful as a private instructor, and many young men are indebted to him for the practical instruction they have received, and which has enabled them to pass their examinations most creditably.

THE EYE AND EAR INFIRMARY, TORONTO.—The directors of this valuable charity have petitioned the Ontario Government for aid to enable them to secure better premises than the small rented building with its few feet of yard room now in use for the Infirmary.

They wish to erect a building that will be large enough to contain twenty or twenty-five beds for the use of patients, which they believe will be all that such an institution will require, at least, for many years. This, with sufficient grounds to enable convalescent patients to take out-door exercise, they estimate will cost in the neighbourhood of $20,000, and they have petitioned the Government for half this amount, trusting to the liberality of the subscribers to make up the balance. This seems to us to be unnecessary liberality as in our judgment the essentially Provincial character of the institution justly entitles it to adequate premises at the entire expense of the country. We trust the petition will be granted.

MATRICULANTS IN MEDICINE.—The following gentlemen passed the Matriculation Examination of the College of Physicians and Surgeons of Ontario, in Jan'y of this year:—R. E. Clapp, T. Chisholm, J. F. Cattermole, J. W. Caughlin, W. A. Dafoe, G. P. Doherty, J. P. Gilmour, J. J. Hagel, D. Hayatt, J. C. McRae, J. McCarroll, J. McIlhargy, A. Nasmith, and G. Rowe.

GUN-SHOT WOUND.—Dr. Worthington, Que., reports the case of a man who received the load of a gun in the abdomen, at the distance of only a foot. Thirteen days after the injury, he discharged eighteen shot and one buckshot from the bowels. Recovery was rapid and complete. The treatment consisted in keeping the patient quiet, and on liquid diet in small quantities.

A BOON.—A Bill is now before the Ontario Legislature which will, in a great measure, remove the disability under which medical men have suffered for years in being liable to be subpœnaed to give evidence in criminal cases, and to be detained from their practice and patients at great loss and inconvenience, and without any remuneration whatsoever. Medical witnesses will now be paid a reasonable fee for attendance in criminal cases, on the certificate of the counsel for the crown and the county attorney, and the order is to be paid forthwith by the county treasurer.

PERSONAL.—Dr. F. Buller, formerly of Toronto, has successfully passed the professional examination for the Fellowship of the Royal College of Surgeons, England, on the 25th Nov. last. He has since returned to Canada, and is about to commence practice as an oculist and aurist in Montreal. We congratulate him upon his success, and wish him much prosperity.

MRS. PEARSON'S SUPPORTER.—We desire most respectfully to draw the attention of the profession to Mrs. Pearson's abdominal supporter. This supporter is not as well known as it deserves to be, as there is no doubt it is the best of the kind in use. It is an invaluable aid in the treatment of all uterine diseases requiring the use of a supporter. Wherever tried it has given good satisfaction; this is, we think, the best test of its value that can be given.

APPOINTMENTS.—At the first meeting of the new City Council of Hamilton, Dr. James White was appointed Medical Superintendentt of the General Hospital. We congratulate Dr. White upon his appointment, and also the Board in the choice they have made. Dr. White brings to his new sphere of labor a zeal and aptitude which cannot fail to insure success.

Samuel W. Moore, M.D., of Nilestown, to be an Associate Coroner, for the county of Middlesex. George A. McCollum, M.D., of Dunnville, to be an Associate Coroner, for the County of Haldimand.

Books and Pamphlets.

A TEXT-BOOK OF HUMAN PHYSIOLOGY for practitioners and students, by Austin Flint, jr., M.D., New York: D. Appleton, & Co. Toronto: Willing & Williamson.

This new book is a condensation of the author's elaborate work in 5 vols. on this subject, which was found to be too voluminous for the general use of students. The work of abridgment has been performed with great skill and judgment, and the work before us is a complete treatise on physiology, and besides it has the advantage over the original work, of having incorporated into the text such additional matter as the rapid advances in physiology seemed to require. It is also illustrated by upwards of 300 engravings, some of which are original. Dr. Flint adopts the theory of Denis that fibrin is one of the products of the decomposition of plasmine, one of the principles of the blood. He also expresses his belief that the blood-corpuscles are formed *de novo* in the blood, and he gives a description of the amœboid movements of the white-corpuscles; the chapter on circulation is excellent; in short the whole work shows great care and labor on the part of the author to make this volume most useful and acceptable to those for whom it is intended.

HUMAN PHYSIOLOGY, FOR THE USE OF STUDENTS AND PRACTITIONERS, by John C. Dalton, M.D., Professor of Physiology in the College of Physicians and Surgeons, New York. 6th edition, revised and enlarged, with 316 illustrations. Philadelphia: H. C. Lea. Toronto: Hart & Rawlinson.

This volume is already so well and favorably known to the profession, that we are quite certain it is only necessary to announce the appearance of a new, enlarged and improved edition to secure for it the attention of all who require a work on this subject. The work is fully abreast of the most recent advances and discoveries in physiological science, especially those appertaining to physiological chemistry and the nervous system. We commend this admirable work to our readers with the fullest confidence that it will give entire satisfaction to those who will give it an attentive perusal.

ON POISONS IN RELATION TO MEDICAL JURISPRUDENCE AND MEDICINE, by Alfred Swaine Taylor, M.D., F.R.C.S., Lond. Third American edition, with 104 illustrations. Philadelphia: H. C. Lea. Toronto: Hart & Rawlinson.

The present edition contains upwards of 700 pages, and is now a most complete manual on the subject of poisons in their relation to Medical Jurisprudence. The whole work has been remodelled, and a number of illustrations introduced. Some chapters have been omitted, some divided, and others introduced, to bring it in accord with the changing aspect of Toxicological Science.

Births, Marriages, and Deaths.

In Blyth, on the 1st ult., the wife of Dr. Sloan, of a son.

On the 17th ult., corner of Yonge and McGill streets, the wife of Dr. T. J. W. Burgess, of a daughter.

At Bay City, Mich., U.S., on the 1st ult., of heart disease, Wm. McPherson, M.D., formerly of Ontario, aged 61 years.

*** *The charge for notice of Births, Marriages and Deaths, is fifty cents, which should be forwarded in postage stamps, with the communication.*

COLLEGE OF PHYSICIANS AND SURGEONS,

MEDICAL DEPARTMENT OF COLUMBIA COLLEGE,

CORNER 23d ST. and 4th AVE., NEW YORK CITY.

SEVENTIETH SESSION, 1876-'77.

FACULTY OF MEDICINE.

ALONZO CLARK, M.D.,
President and Professor of Pathology and Practical Medicine.

WILLARD PARKER, M.D.,
Professor of Clinical Surgery.

JOHN C. DALTON, M.D.,
Professor of Physiology and Hygiene.

SAMUEL ST. JOHN, M.D.,
Professor of Chemistry and Medical Jurisprudence.

THOMAS M. MARKOE, M.D.,
Professor of Surgery.

T. GAILLARD THOMAS, M.D.,
Professor of Obstetrics and the Diseases of Women and Children.

JOHN T. METCALFE, M.D.
Emeritus Professor of Clinical Medicine.

HENRY B. SANDS, M.D.,
Professor of Anatomy.

JAMES W. McLANE, M.D.,
Adjunct Professor of Obstetrics and the Diseases of Women and Children.

THOMAS T. SABINE, M.D.,
Adjunct Professor of Anatomy.

CHARLES F. CHANDLER, Ph.D.,
Adjunct Professor of Chemistry and Medical Jurisprudence.

EDWARD CURTIS, M.D.,
Professor of Materia Medica and Therapeutics; Secretary of the Faculty.

FRANCIS DELAFIELD, M.D.,
Adjunct Professor of Pathology and Practical Medicine.

JOHN G. CURTIS, M.D.,
Adjunct Professor of Physiology and Hygiene.

WILLIAM DETMOLD, M.D.,
Emeritus Professor of Clinical and Military Surgery.

WILLIAM H. DRAPER, M.D.,
Clinical Professor of Diseases of the Skin.

CORNELIUS R. AGNEW, M.D.,
Clinical Professor of Diseases of the Eye and Ear.

ABRAHAM JACOBI, M.D.,
Clinical Professor of Diseases of Children.

FESSENDEN N. OTIS, M.D.,
Clinical Professor of Venereal Diseases.

EDWARD C. SEGUIN, M.D.,
Clinical Professor of Diseases of the Mind and Nervous System.

GEORGE M. LEFFERTS, M.D.,
Clinical Professor of Laryngoscopy and Diseases of the Throat.

CHARLES McBURNEY, M.D.,
Demonstrator of Anatomy.

CHARLES KELSEY, M.D.,
Assistant Demonstrator of Anatomy.

FACULTY OF THE SPRING SESSION.

JAMES L. LITTLE, M.D.,
Lecturer on Operative Surgery and Surgical Dressings.

GEORGE G. WHEELOCK, M.D.,
Lecturer on Physical Diagnosis.

A. BRAYTON BALL, M.D.,
Lecturer on Diseases of the Kidneys.

ROBERT F. WEIR, M.D.,
Lecturer on Diseases of the Genito-Urinary Organs.

MATTHEW D. MANN, M.D.,
Lecturer on the Microscope as an Aid to Diagnosis.

H. KNAPP, M.D.,
Lecturer on Diseases of the Eye and Ear.

THE COLLEGIATE YEAR.

The Collegiate Year embraces a special **Spring** and a regular **Winter Session**, attendance at the latter only being required for the graduating course. The **Spring Session for 1876** begins March 11, and continues till June 1. Thd **Regular Winter Session for 1876-77** begins Monday, October 2, and continues till March. The College Commencement for the conferring of degrees is held annually at the close of the Winter Session.

TUITION.

Tuition is by the following methods:—I. **DIDACTIC LECTURES WITH DEMONSTRATIONS.** During the **Winter Session**, from five to six such lectures are given daily by the Faculty of the College, on the seven general branches of medical Science. Attendance obligatory. **Fees $20.** for the course on each branch, or **$140.** for the entire curriculum. During the **Spring Session**, two lectures on special topics are given daily by the faculty of the Spring Session. **Fees $5.** for the course on branch, or **$30.** for the entire curriculum. II. **CLINICAL TEACHING.** This important element of tuition receives the fullest attention. Ten Clinics, covering all the general and special departments of Medicine and Surgery, are held weekly throughout the entire year in the College Building itself. The attendance is about 6000 patients yearly. In addition, the Faculty, being strongly represented on the Staffs of all the larger Hospitals and Dispensaries of New York, give daily Systematic clinical lectures in one or more of these institutions as a regular feature of the College Curriculum. The great clinical resources of Bellevue, Charity and Roosevelt Hospitals, the Demiet Dispensary, the New York Eye and Ear Infirmary and the Manhattan Eye and Ear Hospital, are thus made of avail for the instruction of the Student. Attendance at Clinics is optional and without extra charge. III. **RECITATIONS** upon the topics of the regular lectures are held daily throughout both Sessions by a Corps of Examiners. Attendance optional. **Fees: Winter Session. $40. Spring Session, $30. Collegiate Year, $60.** IV. **PERSONAL INSTRUCTION.** **Practical Anatomy** is taught in the dissecting-room from October to May, and every Student is expected to dissect. **Fee $10.** good for a Collegiate Year. **Practical Chemistry** is taught in the Laboratory in the Spring. **Fee $15.** Cases of Obstetrics are furnished to advanced Students without charge. Personal instruction in **Operative Surgery, Minor Surgery, Physical Diagnosis, Ophthalmology, Otology,** and **Laryngoscopy** is also given by Instructors, eminent in these several departments, for very moderate fees. Attendance optional.

EXPENSES.

The *necessary* collegiate expenses are the yearly matriculation fee (**$5.**, good for a Collegiate Year), and the fees for the didactic lectures of the Winter Session (**$20.** for the Course on each branch, or **$140.** for the entire curriculum). In adlition, a **Graduating Fee of $30.** is charged. The gradating course requires three years study, and attendance upon two courses of lectures, on each of the seven branches of the Winter Curriculum. Lecture fees are remmitted graduates of the College, to graduates of other Colleges of three years standing to Thheological Students, and to Students who have already attended to full courses of lectu.es, the latter of which, at least, has been at this College. To matriculants, who have attended two full courses elsewhere, a full course ticket is granted for **$70,** All fees are payable in advance. **BOARD** can be had for from **$6.** to **$9.** a week, and the Clerk of the College will aid students in obtaining the same.

For further information, and for the Annual Catalogue and Announcement, address,

EDWARD CURTIS, M.D.,
Secretary of the Faculty,
COLLEGE OF PHYSICIANS AND SURGEONS,
CORNER 23D STREET & FOURTH AVENUE, NEW YORK.

BELLEVUE HOSPITAL MEDICAL COLLEGE,

CITY OF NEW YORK.

SESSIONS OF 1876-77.

THE COLLEGIATE YEAR in this Institution embraces a Preliminary Autumnal Term, the Regular Winter Session, and a Summer Session.

THE PRELIMINARY AUTUMNAL TERM for 1876-77 will commence on Wednesday, September 13, 1876, and continue until the opening of the Regular Session. During this term, instruction, consisting of didactic lectures on special subjects, and daily clinical lectures, will be given, as heretofore, by the entire Faculty. Students designing to attend the Regular Session are strongly recommended to attend the Preliminary Term, but attendance during the latter is not required. *During the Preliminary Term, clinical and didactic lectures will be given in precisely the same number and order as in the Regular Session.*

THE REGULAR SESSION will commence on Wednesday, September 27, 1876, and end about the 1st of March, 1877.

Faculty:

ISAAC E. TAYLOR, M.D., Emeritus Prof. of Obstetrics and Diseases of Women and Children, and President of the College.
JAMES R. WOOD, M.D., LL.D., Emeritus Prof. of Surgery.
FORDYCE BARKER, M.D., Prof. of Clinical Midwifery and Diseases of Women.

AUSTIN FLINT, M.D., Prof. of the Principles and Practice of Medicine, and Clinical Medicine.
W. H. VAN BUREN, M.D., Prof. of Principles and Practice of Surgery with Diseases of the Genito-Urinary System and Clinical Surgery.
LEWIS A. SAYRE, M.D., Prof. of Orthopedic Surgery, Fractures and Dislocations, and Clinical Surgery.
ALEXANDER B. MOTT, M.D., Prof. of Clinical and Operative Surgery.
WILLIAM T. LUSK, M.D., Prof. of Obstetrics and Diseases of Women and Children, and Clinical Midwifery.
EDMUND R. PEASLEE, M.D., LL.D., Prof. of Gynæcology.
WILLIAM M. POLK, M.D., Lecturer on Materia Medica and Therapeutics, and Clinical Medicine.
AUSTIN FLINT, JR., M.D., Prof. of Physiology and Physiological Anatomy, and Secretary of the Faculty.
ALPHEUS B. CROSBY, M.D., Prof. of Descriptive and Surgical Anatomy.
R. OGDEN DOREMUS, M.D., LL D., Professor of Chemistry and Toxicology.
EDWARD G. JANEWAY, M.D., Prof. of Pathological Anatomy and Histology, Diseases of the Nervous System and Clinical Medicine

PROFESSORS OF SPECIAL DEPARTMENTS, ETC.

HENRY D. NOYES, M.D., Professor of Ophthalmology and Otology.
JOHN P. GRAY, M.D., LL.D., Professor of Psychological Medicine and Medical Jurisprudence.
EDWARD L. KEYES M.D., Professor of Dermatology, and Adjunct to the Chair of Principles of Surgery, etc.
EDWARD G. JANEWAY, M.D., Professor of Practical Anatomy. (Demonstrator of Anatomy.)
LEROY MILTON YALE, M. D., Lecturer Adjunct upon Orthopedic Surgery.
A. A. SMITH, M.D., Lecturer Adjunct upon Clinical Medicine.

A distinctive feature of the method of instruction in this College is the union of clinical and didactic teaching. All the lectures are given within the Hospital grounds. During the Regular Winter Session, in addition to four didactic lectures on every week-day, except Saturday, two or three hours are daily allotted to clinical instruction.

The Spring Session will consist chiefly of Recitations from Text-books. This term continues from the first of March to the first of June. During this Session there will be daily recitations in all the Departments, held by a corps of examiners appointed by the regular Faculty. Regular clinics are also given in the Hospital and College Building.

Fees for the Regular Session.

Fees for Tickets to all the Lectures during the Preliminary and Regular Term, including Clinical Lectures	$140 00
Matriculation Fee	5 00
Demonstrator's Ticket (including material for dissection)	10 00
Graduation Fee	30 00

Fees for the Spring Session.

Matriculation (Ticket good for the following Winter)	$ 5 00
Recitations, Clinics, and Lectures	35 00
Dissecting (Ticket good for the following Winter)	10 00

Students who have attended two full Winter courses of lectures may be examined at the end of their second course upon Materia Medica, Physiology, Anatomy, and Chemistry, and, if successful, they will be examined at the end of their third course upon Practice of Medicine, Surgery, and Obstetrics only.

For the Annual Circular and Catalogue, giving regulations for graduation and other information, address

PROF. AUSTIN FLINT, JR.,
Secretary Bellevue Hospital Medical College.

BELLEVUE HOSPITAL MEDICAL COLLEGE,

CITY OF NEW YORK.

SESSIONS OF 1875-76.

THE COLLEGIATE YEAR in this Institution embraces a Preliminary Autumnal Term, the Regular Winter Session, and a Summer Session.

THE PRELIMINARY AUTUMNAL TERM for 1875-76 will commence on Wednesday, September 15, 1875, and continue until the opening of the Regular Session. During this term, instruction, consisting of didactic lectures on special subjects, and daily clinical lectures, will be given, as heretofore, by the entire Faculty. Students designing to attend the Regular Session are strongly recommended to attend the Preliminary Term, but attendance during the latter is not required. *During the Preliminary Term, clinical and didactic lectures will be given in precisely the same number and order as in the Regular Session.*

THE REGULAR SESSION will commence on Wednesday, September 29, 1875, and end about the 1st of March, 1876.

Faculty:

ISAAC E. TAYLOR, M.D., Emeritus Prof. of Obstetrics and Diseases of Women and Children, and President of the College.
JAMES R. WOOD, M.D., LL.D., Emeritus Prof. of Surgery.
FORDYCE BARKER, M.D., Prof. of Clinical Midwifery and Diseases of Women.

AUSTIN FLINT, M.D., Prof. of the Principles and Practice of Medicine, and Clinical Medicine.
W. H. VAN BUREN, M.D., Prof. of Principles and Practice of Surgery with Diseases of the Genito-Urinary System and Clinical Surgery.
LEWIS A. SAYRE, M.D., Prof. of Orthopedic Surgery, Fractures and Dislocations, and Clinical Surgery.
ALEXANDER B. MOTT, M.D., Prof. of Clinical and Operative Surgery.
WILLIAM T. LUSK, M.D., Prof. of Obstetrics and Diseases of Women and Children, and Clinical Midwifery.
EDMUND R. PEASLEE, M.D., LL.D., Prof. of Gynæcology.
EDWARD G. JANEWAY, M.D., Lecturer on Materia Medica and Therapeutics, and Clinical Medicine.
AUSTIN FLINT, JR., M.D., Prof. of Physiology and Physiological Anatomy, and Secretary of the Faculty.
ALPHEUS B. CROSBY, M.D., Prof. of Descriptive and Surgical Anatomy.
R. OGDEN DOREMUS, M.D., LL.D., Professor of Chemistry and Toxicology.

PROFESSORS OF SPECIAL DEPARTMENTS, ETC.

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A distinctive feature of the method of instruction in this College is the union of clinical and didactic teaching. All the lectures are given within the Hospital grounds. During the Regular Winter Session, in addition to four didactic lectures on every week-day, except Saturday, two or three hours are daily allotted to clinical instruction. The union of clinical and didactic teaching will also be carried out in the Summer Session, nearly all of the teachers in this Faculty being physicians and surgeons to the Bellevue Hospital.

The Summer Session will consist chiefly of Recitations from Text-books. This term continues from the middle of March to the end of June. During this Session there will be daily recitations in all the Departments, held by a corps of examiners appointed by the regular Faculty. Regular clinics will also be held.

Fees for the Regular Session.

Fees for Tickets to all the Lectures during the Preliminary and Regular Term, including Clinical Lectures	$140 00
Matriculation Fee	5 00
Demonstrator's Ticket (including material for dissection)	10 00
Graduation Fee	30 00

Fees for the Summer Session.

Matriculation (Ticket good for the following Winter)	$ 5 00
Recitations, Clinics, and Lectures	50 00
Dissecting (Ticket valid for the following Winter)	10 00

For the Annual Circular and Catalogue, giving regulations for graduation and other information, address the Secretary of the College,

PROF. AUSTIN FLINT, JR.,
Bellevue Hospital Medical College.

The Banning Truss and Brace Co.

New York.

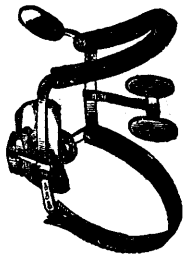


Fig. No. 3, is a comfortable support to the abdomen, but is not so effective as No. 8 in supporting the bowels, spine or chest.

The improved Body Brace.

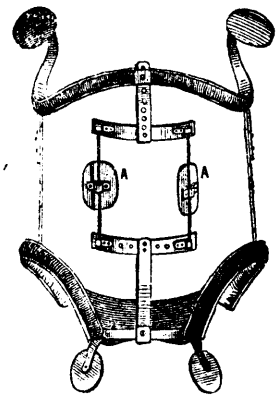
Abdominal and Spinal Shoulder and Lung Brace.

Fig. No. 8, is a general and grateful support to the hips, abdomen, chest and spine, simultaneously; and by itself alone, is ordinarily successful; but when not so, [particularly in spinal and uterine affections], the corresponding attachments are required.

Fig. No. 18.

Improved Revolving

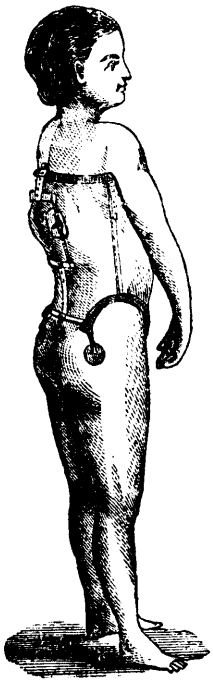
SPINAL PROP.



Unrivalled for the treatment of Angular Curvature, gives no pain, restrains no motion, and makes no show through the dress.

Fig. No. 19.

SPINAL PROP APPLIED.



How to measure for any of these appliances.

1st Around the body, two inches below the tips of hip bones.

2d Around the chest, close under the arms.

3d From each armpit to corresponding tip of hip bone.

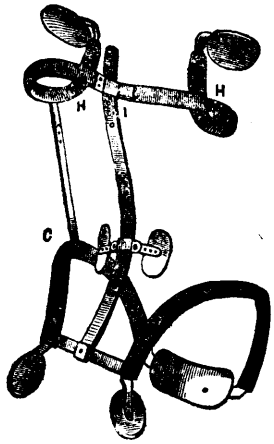
4th Height of person. All measures to be in inches.

Measure over the linen, drawing tape measure *moderately tight.*

Fig. No. 14.

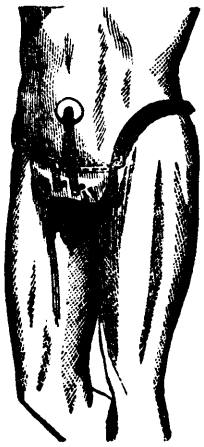
Improved Centripetal

SPINAL LEVER,



For lateral curvature of the spine. The general action is to reverse the body's weight, and so deprive gravity of its depressing force.

Fig. No. 12.



The above cut represents BANNING'S NON-FRICTION SELF-ADJUSTING BRACE TRUSS, applied for the retention of inguinal, femoral and umbilical hernia. Acts upon the principle of removing visceral weight from hernial openings. Is light, cool and self-adjustable, and is absolutely a Non-Friction Truss.

Banning Truss & Brace Co's.

SYSTEM

OF

MECHANICAL SUPPORT

Has the unqualified endorsement of over five thousand of the leading medical men of this country and Europe, and has been adopted by them in their practice.

PRACTITIONERS

Report to the Medical Journals and to us that cases of

SPINAL DEFORMITIES

AND

UTERINE DISPLACEMENT

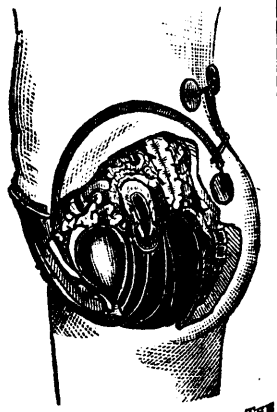
which have gone through the whole catalogue of other Spinal Props, Corsets, Abdominal Supporters and Pessaries,

YIELD READILY

TO

Our System of Support.

Fig. No. 7.



The above cut represents THE IMPROVED ABDOMINAL SUPPORTER, removing visceral weight, and correcting the truncal bearings, while its attachment, BANNING'S IMPROVED BIFURCATED UTERINE ELEVATOR, in supporting the vaginal cul de sac on each side, thus, while elongating the vagina, restoring the diseased or overtaxed uterus [without touching it] to its normal position.

BANNING TRUSS AND BRACE CO., 704 Broadway, above 4th St.

No other office or Address. **Send for Descriptive Pamphlet.**

N. B.—The numbers of the above Figures refer to Pamphlet Nos., **NOT** to Descriptive List Nos.