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THE CANADIAN

Journal of Medical Science

VOL. II. TORONTO, NOVEMBER, 1877. No. 11.

CONTENTS.

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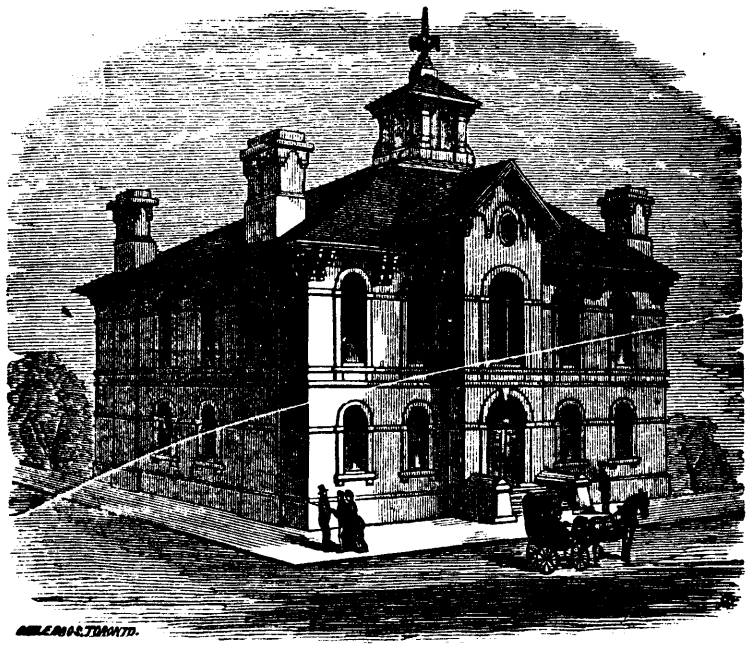

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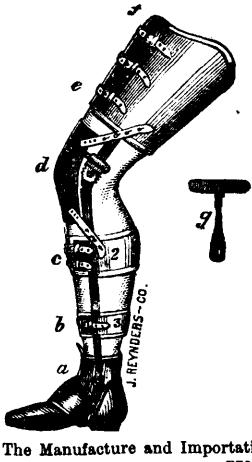

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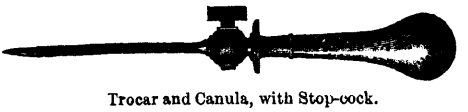

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THE REGULAR SESSION will commence on Wednesday, October 3rd, 1877, and end about the 1st of March, 1878.

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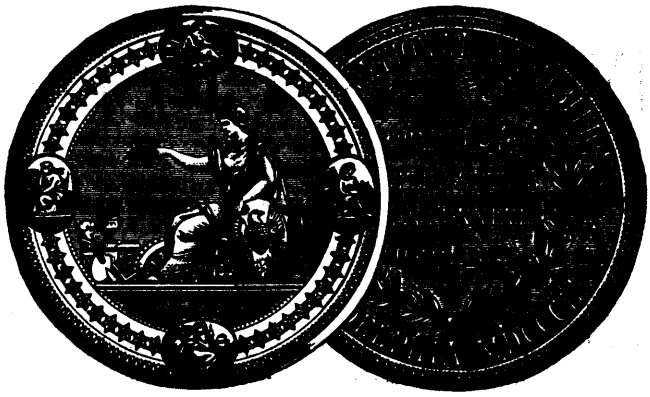
Matriculation (Ticket good for the following Winter)	$5 00
Recitations, Clinics, and Lectures	35 00
Dissection (Ticket good for the following Winter)	10 00

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 graudation, and other information, address Prof. AUSTIN FLINT, Jr., Secretary Bellevue Hospital Medical College.

WORLD'S FAIR MEDAL,

PHILADELPHIA, 1876.



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TORONTO. NOVEMBER, 1877.

Selections: Medicine.

ON URÆMIC ASTHMA.*

BY T. CLIFFORD ALLBUTT, M.A., M.D.,

Physician to the General Infirmary, Leeds.

The affection upon which I venture to speak to-day is one of very great interest to us both as scientific and as practical physicians. Its phenomena are as striking and strange in themselves as they are inexplicable; and, on the other hand, the affection itself is one of the most agonising by which mortals are afflicted. I am not sure, indeed, from my own experience, whether the existence of a certain dyspnœa dependent directly upon uræmia, or connected directly, at any rate, with renal disease, is generally recognized by medical practitioners.† That persons having renal disease have therewith pulmo-cardiac and pleural affections, mostly of a secondary kind; and that such persons suffer from more or less dyspnœa is, of course, familiar lore. What I mean is, that I do not find it to be by any means familiarly known that the subjects of Bright's disease are liable to definite seizures, mainly consisting in intense dyspnœa, coming and going as ordinary asthma comes and goes, and depending as little as this does upon any permanent disease of the lungs.

First of all, then, I will describe the affection as I understand it, and, in doing so, I will keep to clinical facts as nearly as possible. Uræmic asthma is seen in its simplest and, I think, also in its worst form, in that kind of Bright's disease which is known as chronic granular kidney. It may be seen in any state of uræmia, whether this be dependent upon permanent or transient renal disorder; but, in the subjects of granular kidney, the affection is often very severe and very recurrent, and is often dissociated from pleuritic effusion, valvular disease of the heart, and other permanent causes of dyspnœa. How insidiously granular renal disease, with the constitutional state which belongs to it, or to which it belongs, may creep on is well enough known. For months, or even years, it may betray itself only by some loss of flesh, by some fading of the skin, by unusual fatigue after exertion, and so forth. During this time, vascular tension and cardiac hypertrophy are slowly advancing and establishing themselves unknown, it may be, to any one. One day may then come when such an one has an unpleasant interview with his solicitor, a warning from his doctor, or a quarrel in his home, and that night he is suddenly seized by a dyspnœa so terrible that he has to spring from his bed and strive for his very life, as it seems, for one, two, or three hours before peace brings sleep to his pillow, or rather to his pillows, for never again perhaps will he sleep with less than three or four pillows under his head and shoulders. Not that uræmic asthma always occurs at night any more than epilepsy does, but, like epilepsy, its first attacks are often nocturnal, and often

* Read before the Yorkshire Branch.

† Not only in my own intercourse with my brethren do I find doubts or hesitation about this symptom of uræmia, but I find in medical literature that the true nature and importance of these attacks is only recognized in the latest works on the subject. Dr. George Johnson has recently described uræmic asthma, and Dr. Dickinson describes it plainly in the new edition of his work. Uræmic asthma is, however, not mentioned in his first edition (1868); and it is referred to very doubtfully by Dr. Roberts in the chapter on Uræmia in his edition of 1872.

seize the patient in his sleep. Indeed, throughout the malady, the asthma is more terrible at night, as cardiac dyspnœa generally is likewise; still, in its repetition, uræmic asthma becomes more and more irregular in its recurrence, and finally may not wholly disappear for one hour out of the twenty-four. What happens is something as follows. The patient, if awake, becomes aware that his respirations are quickening and are shallower. The distress increases, and a throbbing labouring action of the heart intensifies it. The countenance now becomes anxious, apprehensive, or even terrified, and a somewhat peculiar general muscular restlessness comes on, which seems to be something more than the mere striving for breath or air. Now, with this intense distress, which anon becomes more than this—an agonizing, almost mortal conflict—the face is not puffed, congested, and blue, but nipped and pale, and the very lips themselves are blanched. This, in my experience, is always the case, and the observation is a very instructive one. Moreover, in many instances, though by no means in all, a more or less profuse sweat is of the essence of the attack, comes on, that is, with the primary phenomena, and not as a mere consequence of effort or fear. In two cases, I remember that an outbreak of perspiration upon the usually harsh skin was the very first symptom in the train of symptoms which constituted the attack. In other cases, sweating is unimportant in degree, or is even absent. To the ordinary observer, then, the patient is alarmed, and his aspect is apprehensive and pallid; he is extremely restless; he sits upright and breathes shallowly and rapidly; he speaks in gasps or makes rapid fretful signs, and not infrequently he is covered with profuse cold perspiration. To these observations the physician will add as follows: The temporal arteries stand out like pulsating cords, the radial and tracheal arteries are of tendinous rigidity, and the blood-stream is forced into these and other arteries under great pressure; the big overwrought heart heaves over a wide area of the left chest and seems to threaten to burst its bonds. There is as yet little or no cough, and but little sound of phlegm in the air-passages. The chest expands duly, and, on listening over the lungs, the air is heard to enter freely and rapidly over the whole of them, unless their capacity be lessened by some previous disease. After this contest has gone on for a longer or shorter time, the attack relaxes its hold, the respirations become easier, words and sentences are spoken, the face recovers some tranquillity, and there is usually some expectoration. This expectoration is frothy mucus, often tinged with blood; and, in one case under my care, every violent attack was followed by distinct pulmonary apoplexy in patches large enough to be mapped out by physical examination. In this case, the hæmoptysis was, of course, considerable. In all cases, the lungs fill with *rales* before the termination of the attack. Such are the characters of pure uræmic dyspnœa as seen apart from complications.

Let us now ask ourselves what explanation we can find as we sit watching this awful suffering. The first thing that strikes us is, that the condition is not one of cyanosis, but rather of pallor, shrinking, and incipient collapse; it so much resembles an attack of ordinary asthma in these respects, that the name uræmic asthma may properly be given to it. It is on listening to the chest that we find the most remarkable contrast with common asthma, in the perfect permeation of the pulmonary tissue by the inspired air. It is very strange to witness this strife for breath, as it seems, while, at the same time, we hear the air passing freely throughout the lungs. Indeed, the patient tells us, and we ourselves may see that he is not, as in asthma, unable to draw his breath, but that the drawn breath brings him no relief. It is clear that the air and the blood do not meet in the air-cells, but that the fault does not lie with the air. It must be the blood, then, which does not keep its appointment. Now, in an uncomplicated case, there is no permanent obstruction to the passage of the blood through the lungs; indeed, we know that, in a short time, the air and blood will come again together and the patient will find peace. How is this? Our thoughts now turn to asthma again, and we think of paroxysmal disorders in general, and analogy gradually leads us to suspect that, as in these so in uræmic

asthma, the nervous system must in some way be concerned. We are confirmed in this suspicion by the undoubted fact that the paramount causes of the accessions of uræmic asthma—the determining causes, I mean, of the times of their recurrence—are almost wholly of the kind which influence the nervous system. Although locomotion is not without some effect in disturbing respirations, yet, as I have already hinted, perturbation of mind rather than of body is the potent antecedent. In one of the worst cases I ever saw, the attacks were always brought on or greatly aggravated by such kinds of excitement. The needful strain of making his will, the painful visits of dear friends, the annoying visits of business people, or even the reception of more than a very few persons of any kind during the day, were the efficient causes of renewed seizures. On the other hand, perfect tranquillity in one chamber, and the remission of all calls and messages, postponed the attacks more or less completely. Again, one lady who had lost a friend in Bright's disease, and knew, therefore, but too well the meaning of albumen in the urine. She had her first asthma on the night of the day when I had unwittingly revealed to her the same terrible diagnosis of her own case also. In a third case, the first asthmatic seizure came upon a patient in the night of the day on which his partner had selfishly and rudely complained to him of his absence from business; and such instances I need not multiply.

How, then, can such irritations of the central nervous system determine the occurrence of this asthma? Before the Medical Section of this Association, at the meeting in Sheffield and on previous occasions, I expressed an opinion that mental distress or anxiety is a potent cause of chronic granular kidney.

Can, therefore, the cause which, when protracted, sets up granular kidney be, in its fluctuations, the cause of the asthmatic attacks? I think not. There seems to be a want of explaining hypothesis in this direction. It would seem rather to be some irritation descending directly upon the heart or pulmonary vessels and stopping or hindering the pulmonary circulation in such a manner that the air entering the air-cells finds no blood to meet it. This seems to me, on the whole, to offer a more likely explanation than the humoral hypothesis; namely, that these asthmatic attacks are evidences of efforts of nature to eliminate blood-poison by the pulmonary mucous membrane. We cannot well conceive of nature striving to push out an offensive tenant; the conception would rather be that, under conditions of osmosis, some ingredient of the blood was escaping upon the pulmonary tract. But the auscultatory phenomena do not support this view; they do not suggest asphyxia by infiltration of the air-cells, nor is the aspect of the patient the aspect of pulmonary congestion, with distribution of unaerated blood in the systemic vessels. A more likely hypothesis is, that the transient hindrance to the arrival of the blood at the air-surfaces is in the pulmonary vessels themselves. As the bronchioles, by a spasmodic contraction, prevent, in ordinary asthma, the passage of air to the blood, so it may be imagined that like crisping up of the pulmonary arterioles, on the other hand, in uræmic asthma could prevent the passage of blood to the air, and thus the one disease would be a tolerably precise counterpart of the other.*

So far, the hypothesis runs on four legs; but some difficulties still remain. The chief of these is the occurrence of pulmonary hæmorrhage as an integral part of the seizure. This seems to point to a repletion of the pulmonary vessels, and of their relief by bursting or transudation. Moreover, the establishment of some mucous exudation in all cases points in the same direction. Another difficulty lies in the relief often obtained by the use of digitalis. If digitalis contract the blood-vessels, it might rather aggravate than diminish the distress; now it does the reverse. If Dr. Johnson's belief in the opposition between the arterioles and the heart be correct, it may be that the administration of digitalis confirms the heart more than it increases the vascular resistance. If, as some other physiologists believe, the

* This hypothesis has been proposed by Dr. Dickenson in his edition of 1877 (p. 446), and also by Dr. George Johnson in his lectures recently published. Dr. Johnson pursues the comparison with other apnœas, in a very complete and interesting way, as my readers already know. He also offers a likely explanation of my difficulty in understanding the occurrence of pulmonary hæmorrhage.

heart and muscular arterioles are consentaneous, the good effects of digitalis would be more easy to comprehend; but the explanation of the attack would be discredited. From this discussion we may pass onward to treatment; for the effects of drugs upon the condition may help us to some assurance of the nature of the complaint.

As the good effects of digitalis are in some degree opposed to my hypothesis of a spasm of the pulmonary arterioles, so again, in its failure, nitrite of amyl offers a like opposition. When I had guessed that the attacks depended upon such spasm, I turned with much hope to this drug and with slight hopes to aconite. From neither of them, however, have I found the least aid.* In large and increasing doses of digitalis, on the other hand, I have found a means of permanent alleviation of the condition. By large doses, I mean doses between ten and thirty drops of the tincture repeated under careful observation. The essentially neurotic origin of the attacks points to a like direction of the means of relief, and points correctly; for in nervine sedatives we have most potent means at hand. Unfortunately, it is in chronic nephritis of all diseases that sedatives are least admissible; and, although in this disease sedatives often pass away, leaving the patient unharmed, yet in other cases the lightest doses of them cause serious or even fatal lethargy. The patient who in one week has had a quarter of a grain of morphia injected under his skin without harm, in another week dies of an eighth of a grain in his cough-mixture. Nor have we, so far as I know, any trustworthy guide to the state which permits and the state which forbids the opiates. Strangely enough, opiates by the stomach, with the gradual absorption of which the damaged kidneys would seem more able to compete, appear more harmful than morphia suddenly introduced into the circulation by the skin. To my great surprise, I have repeatedly seen subcutaneous morphia used for the breast-pang sometimes seen in chronic nephritis, as well as in uræmic asthma, without ill effects and with ease so precious that I have not dared to forbid its repetition. In no such case have I happened to see it cause danger, though I have never myself dared to prescribe it. To chloral and the inhalation of chloroform a like objection exists, but these means I do venture carefully to prescribe, and with some success. Bromide of potassium is not strong enough to produce rapid effects, but, in full doses, is much safer than stronger sedatives, and is a valuable adjunct to these. Finally, a few leeches to the sternum are often efficacious in giving some relief to the labouring chest.

To sum up, then, we must use all those well known means which prevent or diminish uræmia; we must guard the patient from annoyance and even from pleasurable excitement. If, in spite of our care, the attacks recur, we must give a mixture containing, say, twenty minims of tincture of digitalis, thirty or forty grains of bromide of potassium, and ten grains of chloral, with a liberal addition of ether and cardamoms, and we must repeat this after a due interval. If, nevertheless, the attack hold on its course, we may administer a little chloroform upon a handkerchief, so as to relax the spasm and dull the *besion de respirer*. Perhaps we ought, in extreme cases, to inject a little morphia under the skin; but this I dare not recommend.—*British Medical Journal.*

* It appears, as regards nitrite of amyl, others have been more fortunate than I.

THE DANGERS OF THORACENTESIS.—What I chiefly wished to say was this: 1. That when a lung, already the seat of tubercular disease, is compressed by a serous pleuritic effusion, the phthisis will often remain quiescent so long as that pressure is maintained, and that the removal of the fluid by thoracentesis is sometimes followed by rapid progress of the phthisis. Of this fact I am perfectly sure, and I quoted a striking instance. 2. That the conversion of a serous into a purulent effusion after paracentesis is favoured by the presence of certain constitutional cachexiæ, as, *e.g.*, the scrofulous cachexia. Of this also I cannot doubt. My statements were in no respect inconsistent with the fact advanced subsequently by the President, that a lung compressed by pleuritic effusion often becomes the seat of tubercle.—*J. Burney Yeo in Brit. Med. Journal.*

A CONTRIBUTION TO THE STUDY OF THE NATURE AND CONSEQUENCES OF MALARIAL POISONING.

BY WILLIAM A. HAMMOND, M.D.

In a paper on "Pigmentary Deposits in the Brain Resulting from Malarial Poisoning," published in the first volume of the Transactions of the American Neurological Association, 1875, I called attention to the subject of brain pigmentation and abnormal mental phenomena as results of intermittent fever and other malarial diseases, and for the first time pointed out the fact that in cases of affections of the nervous system having a miasmatic origin and in which presumably there are cerebral pigmentary deposits; like formations can often be detected in the retinæ by ophthalmoscopic examination. Since then other instances similar to those cited in the memoir in question have come under my observation, but the following case, presenting as it does some additonal features of interest, appears to be worthy of special mention.

C. H., a young man twenty-three years of age, was attacked for the first time in his life on May 25th of the present year with intermittent fever of the tertian type. He resided in Fifth Avenue, near 14th Street, a location not remarkable for salubrity. He was treated with large and repeated doses of sulphate of quinine, with the affect of arresting the paroxysms of ague in a few days. But about the 5th of June he was seized with a series of violent choreic movements of the head which occurred daily at the same time (from 9 to 10 o'clock in the morning), and during which the head was pulled forward, backward, and from one side to the other with great force and frequency for fifteen or twenty minutes.

During the continuance of the paroxysms the mind remained clear, and there was no distortion of face or change of complexion. Quinine failed to exercise the least influence over this condition, on the contrary, the paroxysms became stronger and occurred in the afternoon as well as in the morning. The patient's mind also became involved. He refused to talk and would sit hour after hour in a listless way with his hands on his knees and his eyes fixed on vacancy, occasionally bursting into tears without apparent cause.

On the 10th of June he was brought to me by his mother, an intelligent German woman, and from her I learned the foregoing particulars.

At this time he was anæmic in appearance, the pupils were largely dilated; he refused to talk or to answer questions unless spoken to in a loud and authoritative tone, and then, after some delay, would begin an answer which was left uncompleted. On my telling him to put out his tongue he obeyed, but kept it out till I told him to put it in again. Desiring to examine the blood with the microscope, I pricked the end of his finger with a needle and left the room, being absent about ten minutes, on my return he was still standing with his finger extended in exactly the same position in which I had left him. I took hold of his arm and raising it high above his head, left it there. After twenty-two minutes it began to fall slowly to his side. It will be perceived, therefore, that there was a certain degree of cataleptoid tendency present.

The microscopical examination of the blood showed the existence of numerous pigment-holding cells, but no free pigment.

The spleen was considerably but not excessively enlarged. I introduced into it through the anterior wall of the abdomen, the point of the hypodermic syringe, figured in the paper before referred to, and drew off about half a drachm of splenic blood. This was of a dark, almost black colour; on microscopical examination it was found to contain red corpuscles in diminished numbers, white corpuscles in augmented quantity and of greater than normal size, and numerous pigment-holding cells and masses of free pigment. This latter was generally in granules, sub-rotund in shape, and averaging about the 1-2800 of an inch in diameter. Occasionally these granules were aggregated in groups of irregular form, and again in figures distinctly stellate in shape. On adding, under the microscope, a drop of a strong solution of caustic potash the pigment immediately began to lose colour, first becoming a pale brown, and finally a yellow hue. It may be

stated that old pigment does not readily undergo this change.

On ophthalmoscopic examination the arteries of the retinæ were found to be of somewhat diminished size, and the choroid was paler than is usual in health. Along the course of the arteries in both eyes were masses of pigment, mainly, however, at the outer periphery of the retinæ.

And there were, also, what I had not previously witnessed in similar cases, several recent retinal hæmorrhages in each eye. These were uniformly from the larger portion of the arterial trunk, and, consequently, near the disc, though they in no case encroached upon this structure.

I treated this patient with large doses (twenty drops, three times a day, after meals) of the liquor of the chloro-phosphide of arsenic, and at the end of ten days, when he again visited me, there was a manifest improvement in all the symptoms. The choreic movements had entirely ceased, the mind was decidedly more active, and the nutrition and general appearance much better. The splenic blood, however, still contained pigment, though in diminished quantity. There was none to be found in the blood taken from the end of the finger, the back or the thigh.

The ophthalmoscope showed a marked change in the fundus of each eye. The masses of pigment were diminished in size though unchanged in colour. The retinal extravasations had entirely disappeared, leaving in their situations small, white spots about the third or fourth of a line in diameter.

I may state that throughout the whole course of the disease the patient had never complained of any disturbance of vision. His visual powers, as tested with Galezowski's test-types and chromatic scales, were perfectly normal.

I directed the treatment to be continued and, in addition, prescribed the dialysed iron in fifteen drop doses, three times a day.

I did not see this patient again till the third of September. He was then well except that his mind was a little sluggish. The splenic blood contained very little pigment, and the ophthalmoscopic appearances were normal except that the white spots, previously mentioned, persisted unchanged.

The interesting points about this case are:

1st. The existence of a large amount of pigment in the splenic blood while it was absent from the general circulation, though certainly present in the retinæ and probably in the cortical substance of the brain. This is to be explained, probably, by the hypothesis that at first the liver, through which organ the splenic blood passes, failed to retain the whole of the pigment, though eventually doing so.

2nd. The occurrence of retinal hæmorrhage in connection with malarial poisoning.

At first I thought that this was the first case of the kind that had been observed, but upon thorough research I ascertained that a similar instance had been noticed by Galezowski* as occurring in the practice of his and my distinguished friend, Dr. Noel Gueneau de Mussy. The case in question was that of a youth who was suddenly attacked with intense headache and high fever. A few days subsequently he complained of impaired vision, and on ophthalmoscopical examination, double-optic neuritis and numerous retinal hæmorrhages were discovered. Intermittent fever of the tertian type was now developed. Quinia was administered in repeated doses of about eight grains each, with the effect of curing the fever and the neuro-retinitis, and causing the disappearance of the retinal extravasations.—*St. Louis Clinical Record.*

THE TREATMENT OF SCIATICA.—Dr. Flemming gives, in the *Berlin. Klinische Wochenschrift*, the results of his experience of forty cases of sciatica by means of the sand-bath. The patient is placed in a kind of trough, and the affected limb is surrounded by sand, at a temperature of 100° Fahr. or more, for half an hour; after this a warm-water bath is administered. Recovery is stated to take place, upon the average, after twenty-four sand-baths. —*London Lancet.*

* Traite iconographique d'ophthalmoscopie. Paris, 1876, p. 190.

BILIOUSNESS AND ITS TREATMENT.

This is the title of quite an interesting paper by Dr. Fothergill, in the *Medical Times* of June 23. In discussing treatment, Dr. Fothergill remarks as follows: The medicinal treatment of biliary disorders next claims our attention. And it may be well to consider first that form of malady known as a bilious attack, and to which dark-complexioned persons of the biliary diathesis are most subject. Rarely do persons of other diathesis and fair persons suffer from those disturbances which may fairly be said to be connected with the presence of bile acids in excess; while as to those forms of biliary disturbance where the urine is laden with lithates—the condition Dr. Murchison calls lithæmia—persons of other diatheses seem equally liable to them, and they are found in fair and dark people alike. For those bilious attacks, then, which occur chiefly in those of the bilious diathesis, nothing is so good as alkaline-saline purgatives taken in some vegetable infusion immediately on getting out of bed in the morning. This should be washed down with some warm fluid which excites the peristaltic action of the bowels, and, if necessary, a vegetable laxative pill should be taken the night before. After a couple of liquid motions, the more copious the better, the bilious person feels pretty equal to the day's work before him. Rochelle salts, with a little sulphate of magnesium in infusion of buchu, form a most excellent morning purge, in my experience. Sir Joseph Fayrer has found, in his Indian experience, sulphate of magnesium with quinia or gentian, sufficient to produce two or three loose motions, an efficient measure in biliary congestion. Even with miserable anæmic individuals such purgation is necessary, and must precede all attempts to give chalybeates. Bilious persons somehow do not do well with iron. Iron may improve the oxidizing processes in persons ordinarily, but it does not suit persons labouring under biliary disorder; and Sir Joseph Fayrer found it did harm rather than good to anæmic subjects until the purgative plan had been thoroughly followed out, and the liver unloaded, as it is said. Even then purgation is to be maintained to a moderate extent. As long as there is a bitter taste—probably due to taurocholic acid—in the mouth in the morning, the purgation must be continued.

A very important matter in the treatment of biliousness is the question of the administration of mercury. In an ordinary bilious attack a mercurial pill is almost essential, and often free purgation without a mercurial leaves the condition unrelieved until a mercurial is given, when all goes well. This fact is well known clinically. The apparent conflict between this fact and the results of experimentation—that mercury reduces the secretion of bile by the liver—has troubled many persons, but really there is no difficulty in the matter. Mercury sweeps away the bile in the upper bowel, and so brings away bilious stools, especially when an excess of bile is circulating in the intestino-hepatic circulation. Such an action reduced the amount of bile passing out of the gallduct in animals experimented upon, because it removed the excess of bile going round and round, and thus, apparently, checked the secretion of bile by the liver. Mercury is then a true cholagogue, and its threatened disposition is now averted. Dr. Murchison thinks, too, that mercury has an action in inducing disintegration in the liver, as it helps to remove growths, notably syphilitic gummata and effused fibrin, by rendering the material more easily taken up by the lymphatics. This is a very ingenious suggestion. Certain it is that mercury gives great aid to a liver which is in difficulties, and it is equally certain that if persons who suffer from biliary troubles take, or have taken, mercury freely, it is impossible to treat them without a little of that agent. It is well, though, to keep the amount low, and to give a pill containing a little mercury at bedtime, and follow it up with an alkaline purge in the morning. It is pretty apparent from clinical observation that mercury is rather indicated when there is an excess of bile acids present. In cases where there is abundance of lithates it does less good, and is apt to do harm if the kidneys are not in their integrity. It is not unimportant to remember this. In all forms of biliousness, too, there is defective oxidation, and mercury and alkaline-salines are often more useful even to patients suffering

from coëxistent debility and anæmia than mineral acids and quinia, "the strength, flesh, and colour returning under what, at first sight, might have appeared a lowering treatment." Here I entirely agree with Dr. Murchison; and even after mineral acids and tonics are admissible, it is well to maintain the morning purgation. Iron rarely suits these patients, and should be withheld until the liver is once more acting efficiently and has thoroughly recovered its tone. Perhaps of all tonic agents strychnia is the one best adapted to the bilious. It greatly relieves the depression, and it is well to combine it with the nitro-hydrochloric acid.—*St. Louis Med. Journal.*

A NEEDLE FOUND IN THE BRAIN.—At a meeting of the Pathological Society of Philadelphia (*Med. Times*), Dr. H. Lenox Hodge reported, that upon removing the calvaria of a subject in the anatomical rooms of the University of Pennsylvania, a sewing needle of medium size was found lying on the right hemisphere of the brain, nearly parallel to the superior longitudinal sinus, about an inch distant from it, and about an inch and a-half behind the fronto-parietal suture. The point and the eye of the needle were both unbroken. The point was directed backwards. The needle was much oxidized; and attached to the arachnoid surface of the dura mater by old bands of lymph, near the larger extremity of the needle.

No history of the cadaver, an adult male, could be obtained.

The needle appears to have given rise to no important changes, and had no apparent connection with the cause of death. The man seems to have died of phthisis.

It is a matter of interest how the needle reached the position. Other methods might be suggested, but it is most probable that it entered the anterior fontanelle during infancy, and thus passed to the place where it was found.

Dr. Richard A. Cleemann said that he had made use of the fact that a needle after being imbedded in tissue for a certain length of time becomes tarnished. He had extracted a fragment of needle, and was anxious to determine whether it was all that entered the foot. The broken end was tarnished. He fractured the needle, and, observing that the fractured ends presented the usual steel-like lustre, he concluded that he had removed the whole fragment. Had he broken it off, the fractured end of the removed portion would have been bright.—*Pacific Med. and Surg. Journal.*

APOMORPHIA.

This remarkable alkaloid is derived from morphia by the abstraction of the elements of water from the latter. Since its discovery by Mattheissen and Wright, in 1868, it has grown rapidly into notice and favour as a substance possessing singular physiological influence, with great promise of therapeutical usefulness.

M. Chouppe, from a series of carefully conducted experiments, has shown that apomorphia produces emesis through a different mechanism from tartar emetic, ipecacuanha, or its alkaloid, emetine. The conclusions were that (1) ipecac and its alkaloid, however introduced into the system, occasion emesis by the direct irritation of the terminal filaments of the pneumogastric nerves in the mucous coats of the stomach; whilst (2) tartar emetic and apomorphia appear to have a double effect—acting on the gastric mucous membrane, on the one hand, and the medulla oblongata, on the other. Yet there is this difference between them: that the action of the apomorphia is exerted directly and more energetically upon the origin of the par vagum than upon the gastric mucous membrane, whilst tartar emetic reverses the procedure. The proof is exhibited in the fact that emetic doses of tartar emetic are required to be larger when injected in the veins than when introduced into the stomach. With apomorphia, its maximum effect is induced by injection into the circulation (*Archives de Physiologie*, No. 1, 1875). Apomorphia, from the singular energy and unfailing promptitude of action (producing emesis within from 4 to 6 minutes); from the slight nauseant influence induced; from the transient character of the secondary effects, as drowsiness, giddiness, and slight weakness of the limbs; from the absence of the depressing effects which are attendant upon some other emetics; from the facility of its subcutaneous introduction into the system—these are characteristics which justly entitle its association with the most remarkable and useful accessions to modern materia medica, and well calculated to fulfill an important *role* in the province of therapeutics.

From clinical observation already recorded, apomorphia has proved a reliable and efficient

remedy with a wide range of application. Dr. Wm. F. Duncan says that from his experience of the hypodermic use of the hydrochlorate of apomorphia, as an emetic for children, "its value cannot be too highly esteemed" (*The Medical Record*, Aug. 7, 1875). The average time at which emesis occurred was 2·9 minutes, which is much less than the period required by the yellow sulphate of mercury.

Its prompt and efficient action in cases of croup and capillary bronchitis, unattended by nausea and violent retching, makes it a great boon to children; and the ready applicability, by hypodermic use, in recalcitrant subjects who take medicine only after a long and exhausting struggle, constitutes it a remedial resort of incalculable value. In the polyclinic of Heidelburg, Dr. Jurasy, after an experience of two years in cases of tracheitis and bronchitis, expresses great gratification at its efficiency as an expectorant. Minute doses, ranging from $\frac{1}{80}$th to $\frac{1}{20}$th of a grain, liberated the tenaceous mucus and relieved the cough by copious expectoration.

In bronchial catarrh, Reigel (*Cyclopædia of the Practice of Medicine*, Ziemssen, Vol. IV.) confirms its valuable expectorant qualities.

As an emetic in suffocative forms of tracheitis, in croupous bronchitis, and in bronchial catarrh, in which the impaired tone of the bronchial muscular tissues renders an elimination of the copious secretion difficult and inadequate, Riegel has found no agent comparable in promptness and thoroughness of action to apomorphia.

Juergensen and Hertz (*Cyclopædia of the Practice of Medicine*, Ziemssen, Vol. V.) have attested its satisfactory results in catarrhal pneumonia and œdema of the lungs.—*Clinic.*

A Great School of Pharmacy is being constructed in a portion of the grounds attached to the Luxembourg at Paris which will occupy in all the large space of 17,000 square yards, of which the laboratories will accommodate 600 working students. The school will be open in 1880.

REPEATED COLD BATHS IN TYPHOID FEVER.—(*L'Union Medical*, May 29, 1877.)—Prof. Peter in an address before the Societe Medicale des Hopitaux, on the subject of cold baths as a system of treatment in typhoid fever, summed up his opinion of them in the following *resume:*

1. The physician in practice does not consider a typhoid unity; but he is engaged with typhoid *patients*, each offering daily diverse, complex and changeable *indications*, according to the lesions and symptoms.

2. Still less should he consider only one morbid element the *excess* of *heat.*

3. All systematic treatment directed towards a single symptom is absolutely illogical and insufficient.

4. The good results of the treatment by cold (when it produces any) are not due to the lowering of the temperature (when the lowered temperature can be maintained), but to a profound perturbation of the nervous system; the loss of heat is therefore a very indirect result of the treatment by cold baths and is due to a dynamic modification of the nervous, cutaneous and vascular systems.

5. Now this modification can be obtained by other hydro-therapeutic means, less dangerous than cold baths.

6. There are cases in which even cold sponging, imprudently employed or frequently repeated, is not without danger; a nervous shock, however slight, may become a dangerous one for a system enfeebled by typhoid fever.

7. When an accident does occur as a result of cold baths in typhoid, the dangers are grave and out of all proportion to the expected benefit; accordingly. I do not see the indication for cold baths, either to reduce the temperature or to produce a general modification at the system; and considering the terrible accidents they can bring about, I see only contra-indications.

8. In conditions every way comparable (same hospital, same months, same epidemic, and an equal number of patients) the treatment of typhoid *patients* by cold baths has given in Paris greater mortuary statistics than a rational treatment inspired by the indications.

9. The best system in therapeutics and particularly in the treatment of typhoid patients. (I intentionally say *typhoid patients* and not typhoid fever) is still and always will be, to have no *system* whatever.—*Detroit Med. Jour.*

HEREDITARY HEART DISEASE.—It is not often that a hereditary influence in the occurrence of heart disease can be distinctly traced to any wide extent, although it is often suspected. A remarkable example of such a transmission is recorded by Dr. Rezek, of Teplitz, in the *Wiener Med. Zeitung*. Of the pair from whom the family in question is descended there is reason to believe that the mother suffered from heart disease. They left two sons and five daughters. Of the sons, one is still alive, and suffers from heart disease; the other is dead, and suffered before death from dropsy. His son, moreover, suffers from some cardiac affection. The other son, still alive, has suffered for some years from heart disease, but his children are healthy. Of the three daughters, one died from heart disease, and of her five children all are healthy, but one has married and has had three children, two of whom are cyanotic. The second daughter of the original pair is still alive, and has suffered for many years from cardiac disturbances similar to those of her brother. Of her children, one daughter has died of heart disease, and another has married and has borne a child with well-marked congenital heart disease and cyanosis. The third daughter of the original pair has not suffered from heart disease. Care has apparently been taken in each instance to substantiate the diagnosis.—*London Lancet.*

ON THE EMPLOYMENT OF ERGOTINE IN HÆMORRHAGE, BY R. STRISOWER.—Cariere has made a synopsis of this article from the Russian. The author reports a case of an unfortunate suffering with hæmorrhoids. For six months he had had hæmorrhages, which had resisted all treatment. Only once the persulphate of iron had arrested the flow for ten days. The patient was almost exhausted. Strisower wished to employ the ergotine by hypodermic injections, but the patient refusing, he exhibited the medicine by the rectum—five grains of ergotine to two ounces of glycerine. The hæmorrhages did not return, and six weeks after the patient had regained his strength for the most part.—J. D. FISKE, M.D., Baltimore.—*Maryland Med. Journal.*

Surgery.

INGROWING TOE-NAIL.

Dr. A. H. Hagard, of Oakland, California (in *Trans. Med. Society, California*, for 1876 and 1877, pg. 45, *et seq.*), contributes a very complete paper on this subject.

The toe-nail grows from a matrix, which lies in a fold of the skin near its base; in a large majority of cases, it comes forward with a thickened, recurved margin at either side, which lies easily in a groove in the soft parts that run along either side from the matrix to the end of the digit. A very notable difference occurs in the thickness of the nails in different persons. It is very largely the rule that a thick, robust nail (finger or toe) is provided, with recurved margins, imbedded in deep sulci on the sides of the digits. Dr. A. believes this conformation of the toe and nail determines a predisposition to the disease in question; and he has satisfied himself that the disease is often hereditary.

Anything may be an exciting cause that forces the incurved margin of the nail to so impinge upon the skin lining the bottom of the groove as to bruise, irritate or inflame the parts. The nail that is not viciously grown, but is entirely normal to the individual, in this way becomes the offending member, and the soft tissue somewhere along the groove, the suffering parts. Hence, the trouble may be produced in a toe with the predispositions noted, either by forcing the margin of the nail too firmly into the bottom of the sulcus, or by pressing the bottom of the groove up against the nail. These conditions are often associated in the production of the trouble.

The most fruitful exciting cause is the habit of wedging the foot into a narrow funnel-shaped stocking toe, as is done every time such a stocking is pushed into a boot or shoe. The next most frequent exciting cause is, wearing a very loose boot, with a cuneiform shape at the toe. Especially if it has a high heel, this tends to press the toes together at every step. Another exciting cause is wearing a boot that is too narrow for the foot.

A curious and important point connected with the cause of ingrowing toe-nail is this: In

walking—notably in running—just at the last of each step, nearly the whole weight of the body is thrown upon the well-padded end of the great toe. This is more emphatically so with the Caucasian, who "toes out" when he walks or runs. The Indian, on the other hand, throws himself forward in his loping gait, with a spring from all the toes, and thus "toes in." In the femur of an Indian, the angle which the head of the bone makes with the plane of its articular surface at the knee, is very much greater than in the femur of the white man. Now place the femurs upon the table so as to rest on their condyles at the lower end, and upon their shafts at the other; the head of the white man's femur rises but little above the surface of the table, while that of the Indian cocks up, giving a very obtuse angle with a surface of the table. Now place the head of each bone in its acetabulum, attach the leg and foot, and it is at once seen why the Indian lopes with his toes, while the white man runs with his big toe.

In the *first* stage of this trouble, cut the nail short, *trim both corners well back*, and keep the front rasped thin; avoid stockings with narrow toes; select boots with low heels and ample room for the toes, but fitting the instep snugly.

But if the patient comes, as he generally does, too late to be benefitted by these simple injunctions—if ulceration has taken place from pressure of the border of the nail in the bottom of the groove, and the soft parts are inflamed and indurated, the indication then is to perfectly relieve the bottom of the groove and the toe-nail pocket from the unhealthy pressure of the margin of the nail.

Two plans are proposed; one is temporizing, the other, radical. With the former object, two methods are mentioned. Removal of the nail entire gives relief until a new nail develops, when the trouble returns. Again, the free border of the nail may be trimmed away, back to near the base, so as to relieve the pressure for the time, and if well done, so as to leave no spicula or sharp edges to come forward and soon wound the flesh again, will give comfort; but this operation must be repeated every two or three months. Dr. A. prefers this to the former temporizing method.

Three methods for *radical* cure deserve mention. 1. Remove entire nail with its matrix. The objection to this is that it leaves the top of the toe unprotected. 2. If merely the margin of the nail with the matrix be removed, the nail will remain narrower, and the normal recurved margin will never be renewed. 3. If we remove the soft parts along the border of the toe so as to take away the groove and the obstruction to the growth of the angle of the nail, we as effectually cure the disease as when we remove the nail. This is a less objectionable operation than either of the above two. Care should be taken that the nail groove is effectually ablated, and especially that the upthrust of indurated tissue anterior to the outer angle is removed. As a rule, the operation will confine the patient to his lounge for a few days, but some patients walk around the day after. Dr. A. has never known of a relapse after this operation.

In cases where the deformed matrix sends forward a malformed, recurved margin, remove the margin of the nail and the matrix from which it grows. It may be proper in rare cases to combine two operations—remove the margin of the nail and the side of the toe.

There is no need for general anæsthesia in making these operations. The application to the toe of a little snow, pounded ice, or a freezing mixture will render the operation almost painless.

In some cases, where the engorgement of the tissue is great, from being long or severely irritated, the hæmorrhage will be out of all proportion to the size of the wound, but no harm can follow.

Dr. A. dresses the wound with salicylic acid in substance, using the dry powder, and orders the dressings to be kept wet for a few hours with cold water. Profuse granulations should be repressed, but they do not come up under the use of salicylic acid.—*Virginia Med. Monthly.*

Dr. Alfred S. Taylor has resigned the office of Lecturer on Medical Jurisprudence and Toxicology in Guy's Hospital. He has held this position since 1831, and also was lecturer on chemistry from 1832 to 1870.

A NEW METHOD OF TREATING FRACTURE OF THE CLAVICLE.

HENRY VAN BUREN, M.D., CHICAGO.

I make the first bandage three or four inches wide out of unbleached cotton, of double thickness and sufficient length. On one end of this bandage a loop is made, by returning the bandage on itself, and fastening the end with a few stitches. The hand on the injured side is then passed through this loop, and the loop carried up to a point just below the axillary margin. This bandage is then passed directly across the back, and under the sound arm and over the sound shoulder, and returned across the back, and pinned or stitched to itself at the point where the loop is formed.

The second bandage is then made and applied as follows:—

I flex the arm of the injured side and place the hand on the chest, pointing in the direction of the sound shoulder; I then take a piece of the same material as used in the first instance, and make a bandage four inches wide, of double thickness and sufficient length, and pin or stitch one end of this bandage to the lower margin of the first bandage, in front of the sound shoulder. It is then passed diagonally downward, and across the chest under the hand and forearm which has been flexed upon the chest, and carried around the arm at the elbow, and back on the dorsal surface of the forearm and hand to the point from which it started, and this end also pinned to the first bandage.

I then stitch the lower margins of this bandage together for a distance of about three inches at the elbow, thus forming a trough for the elbow to rest in. I also do the same at the upper end of this bandage, which forms another short trough for the hand to rest in.

This bandage or sling may be made as described above, before it is applied, and the elbow placed in the lower trough and the hand in the upper one; and the upper ends of the bandage pinned to the lower margin of the first bandage, at a point opposite the sound shoulder, as above indicated; indeed I prefer this plan because more convenient.

This sling serves the triple purpose of drawing the lower end of the arm forward and upward, and thus throwing the injured shoulder backward. It supports the fore-arm and hand in a comfortable and quiet position, and last, it prevents the first bandage from cording under the sound arm by its attachment to its lower margin.

To prevent the first bandage from producing excoriation in the axilla of the sound side, I usually cushion the bandage at this point by stitching on two or three extra thicknesses of the cotton cloth. The same may be done at the loop,—around the arm of the injured side, if necessary.—*Chicago Medical Journal.*

PIMPLY-FACE ACNE.

In a recent lecture by Mr. Jonathan Hutchison, an eminent London surgeon, in which he discusses the whole subject of this unsightly affection—its causes and appearances—he says in regard to the best treatment, as follows:

"When the face is covered with pimples, some of which are red, some contain pus, and others show only black points in their centres—all kinds being present, and all show in progress—it is commonly agreed to call the condition Acne.

The rules for the constitutional treatment of acne patients follow easily from what we have said. If the patient be young he should be made to use a cold bath every morning, to take plenty of exercise, to live liberally as regards meat diet, with a fair allowance of stimulants; and he should be cautioned or encouraged, as the case may be, in reference to sexual matters. As to medicines, a long course of small doses of arsenic will often be of great use. If constipation be present, the habitual use of a chalybeate aperient should be prescribed. You may do all this, however, most assiduously and gain nothing whatever, if you neglect local measures; whilst with the latter only, and without any change in the patient's habits, you may often get an acne eruption so nearly well that he will regard it gratefully as a cure. The chief local measure consists in destroying, by means of a fluid caustic, the inflamed follicles. With a fine-pointed glass brush, or a bit of soft wood cut to a point, you touch the inflamed spots from day to day. Take care not to apply too much.

In the left hand should be a roll of blotting paper with which to absorb the fluid if it has been deposited too abundantly. The best fluid to use is the acid nitrate of mercury. It will usually be necessary to repeat the touching once a week for a month or two, carefully seeking out every fresh spot. After that the patient should still see you once a month, in order that the cure may be kept up. The acid thus used does not leave larger scars than the spots would themselves do.

In acne rosacea the use of the caustic will again serve an excellent purpose. You may not only touch the spots themselves, but also pencil out the stray vessels which add so much to the patient's disfigurement. He, or more usually she, will gladly exchange a few slight and scarcely perceptible scars for the angry and very suspicious-looking redness of face which the disease causes.—*Medical Times and Gazette.*

Muscular Atrophy in Affections of the Joints.—In a memoir just published (H. B. Bailliere), M. Valtat, of Paris, discusses, in an exhaustive manner, the subject of muscular wasting in connection with articular disease. His conclusions may be briefly summed up as follows:—1st. That the majority of joint diseases markedly influence the nutrition of the muscular system. 2nd. That, in the majority of the various kinds of arthritis, from the very onset of the disease, there supervenes considerable atrophy and more or less marked paralysis of certain muscles, particularly those acting on the affected joint. 3rd. This atrophy cannot be attributed to functional inactivity, nor to inflammation of the muscles, nerves, or spinal cords; but it is most likely produced in a reflex manner. 4th. It usually increases as long as the articular disease lasts, and although occasionally it may be transitory, in the immense majority of cases it persists after the cure of the arthritis, and then forms the chief hindrance to the restoration of movements in the limb. 5th. Its duration is generally very long, and it has only slight tendency to spontaneous cure. Sometimes, under the effects of simple exercise, the muscles may recover their power and volume, but this is not only rare, but is always tedious and often incomplete. 6th. These atrophic lesions are readily and rapidly cured by the use of feeble continuous currents, and better still by the combined use of galvanism and faradaism.—*London Lancet.*

The Surgical Use of the Omentum.—Dr. Kenneth McLeod, in a late paper from his experience in India, gave an account of a large number of cases of penetrating wounds of the abdomen where the omentum protruded. Consideration of such instances led to the belief that this was a special provision by which the intestines or other abdominal viscera were prevented from protruding from such penetrating wounds. After a detailed analysis of the cases, Dr. McLeod considers the anatomy of the omentum, the natural history of such cases, and the treatment. The omentum might be washed and reduced under antiseptic precautions, or it might be left unreduced. Ablation of the recently protruded mass was both unnecessary and dangerous; but, if irreducible, some advised a previous enlargement of the wound, and then reduction.

On Lipoma of the Tongue—Tizzoni and Parona described in the *Annali Universali de Medicina e di Chirurgia* for March, the case of Professor C. Gianni, aged 74, who had had a growth about a year, situated under the interior and under surface of the tongue, on the right side. When he had had it six months it was of the size of a filbert, and, thinking it was a collection of pus, he punctured it himself, but let out only a little blood. The tumour then rapidly grew, and attained the size of a large walnut, becoming very inconvenient, and causing constant spitting of saliva. Removal was effected by enucleation, and the nature of the growth was ascertained to be that of an ordinary soft lipoma. Microscopic examination confirmed the naked-eye opinion. The patient did well. A *resumé* is given of all the recorded cases of lipoma linguæ.—*London Med. Record,*

Danger from Hypodermic Injections.—Dr. E. F. Ingalls, in the *Chicago Medical Journal and Examiner,* calls the attention of the profession to the danger of injecting morphia hypodermically, and relates several cases in which fatal results rapidly followed its use. He is satisfied that no precaution can be taken which will ensure us against accidents from this mode of treatment.

Midwifery.

ON NON-INSTRUMENTAL AIDS TO LABOUR.*

BY WILLIAM STEPHENSON, M.D., F.R.C.S., EDIN.,

Professor of Midwifery, University of Aberdeen.

I. When may we, with advantage, Rupture the Membranes before full Dilatation of the Os?

Many a shrewd practitioner, with but little knowledge of the *science*, has acquired from experience very considerable skill in the *art* of obstetrics, more especially in many little details whereby a normal but a tardy labour can be facilitated. Such experience, however, is blind and liable to error, until the scientific basis upon which it rests is understood. Before even the science of midwifery existed, it was found that a change in the position of the patient was often very effectual in accelerating a lingering labour. Under such circumstances, it was a common resource to get the patient out of bed, make her kneel on the floor, or sit between a couple of chairs. This is often of great service, and a scientific explanation can be given why it should be so. But there is one condition where the labour is certain to be tedious, and where an ignorant midwife or medical attendant is very likely to try the above plan, with the result of only aggravating the evil. In this case, the cause of delay is a pendulous abdomen; and a knowledge of the normal axis of the uterus directs the attendant to lay the patient on her back and apply a binder. This illustration is a good example of a non-instrumental aid to labour, and also of the precision which is given to treatment by scientific knowledge as compared with the blind and ofttimes bungling actions of empiricism.

There are many ways by which an enlightened and experienced obstetrician can thus materially help on labour. Some, as the one referred to, are described in books; of others no mention is made, but they are left to be acquired by experience; and more, the result of such experience is at times found to be entirely at variance with the principles laid down by the authors of our text-books. Such is the case in the question which I propose to discuss on the present occasion: When may we, with advantage, rupture the membranes before the full dilatation of the os? I may mention that this question has reference only to normal labour, where the head presents and there exists no contraction of the pelvis, but where the progress of the first stage is retarded.

As a part of the history of our art it is interesting to observe how exaggerated were men's ideas regarding the importance of retaining intact "Nature's wedge," and how patiently and reluctantly former practitioners would wait, under the dread of being meddlesome, for Nature to do what they could readily have done, even when convinced that the non-rupture of the membranes was the cause of delay.

There is still remaining, at the present day, much of the dread of having too early recourse to this simple operation. In the face of the fact that much, and often long-continued, ineffectual exertion is often due to the integrity of the membranes, even before full dilatation of the os, and the other fact that such ineffectual work is often productive of serious after-complications, there is certainly a want of discussion on this point in our recent works. Leishman speaks of it where there is unusual thickness and resistance of the membranes: "But before we decide on rupturing them we should be sure that the proper function of the membranes has been effected in producing dilatation of the os." Playfair recommends puncture before completion of the first stage only when the liquor amnii is excessive in amount; and renews the oft-repeated and considerably exaggerated caution: "If we evacuated the liquor amnii prematurely, the pressure of the head on the cervix might produce irritation and seriously prolong the labour." This latter point is a question upon which the members of this Society might with profit express the results of their experience: in how far they have observed that irritation is produced, and the labour delayed, in cases where the membranes have ruptured or been punctured before, or early in the first stage. The term irritation is vague in the extreme, and conveys no definite idea to the mind.

*Read before the Aberdeen, Banff, and Kincardine Branch.

Before entering on the discussion of our question, it is well to define what is the exact meaning in which various terms are to be employed. By *full dilatation* of the os is meant, not obliteration, but only that degree which we know will permit the ready passage of the head; whilst the state in which the uterus and vagina are one continuous canal should be designated as *complete obliteration* of the os. The term *os* itself should be confined to the lumen of the *cervix*, and the latter term be always employed when speaking of the state of the tissues which compose it. *Dilatation*, also, should be limited to speaking of the size of the os, while we speak of the *expansion* of the cervix.

In reference to the puncture of the membranes, I have stated practice is at variance with teaching. Whilst our books say that this should not be done, except in rare cases, until the full dilatation of the os, many practitioners have found that by experience they can recognize certain favourable conditions, especially in multiparæ, where it is of great advantage to evacuate the waters when the os is not more than half dilated. We have seen that formerly there existed a very exaggerated idea of the function of the amniotic bag; that its purpose was supposed to be the dilatation of the whole length of the parturient canal; and that it should only be punctured when protruding at the external orifice. Modern opinion now regards the integrity of the membranes as no longer of any value after the full dilatation of the os; and it remains to be seen whether their true function should not be further curtailed, and that what at present is still empirical in practice does not rest on pure scientific grounds. The question must be answered by direct observation, and not by any imaginary views regarding the action of "Nature's wedge," the fœtal head being quite as much a wedge of nature as the bag of waters.

In discussing obstetric problems involving the first stage, it has been too exclusively the custom to take the degree of dilatation of the os, and the softness or dilatability of the tissues, as the criterion of the amount of progress made in the process of labour. This, it is easy to show, is an error; and in forming an opinion we must take cognizance of something more. It is a matter of common experience to find that the membranes rupture spontaneously while yet the os is but slightly dilated, and that the head at once descends and comes into contact with the whole lower segment, the parturient ring being in close relation to the head. Again, it is likewise a matter of common experience that the membranes give way when the os is of the same size as in the first case, and yet the head does not come into close relationship with the parturient ring; the cervix of the lower uterine segment in this case has not in its upper part been expanded to the full diameter of the head. If the finger be introduced well through the os, it is possible to feel the head resting on a ring of firm tissue. Sir James Simpson describes this as an adventitious band of fibres which delays the first stage. It is nothing more than the unexpanded structure of the lower uterine segment. It is evident that, although the os was of the same size in both cases, yet that the mechanism of the first stage was, in the first instance, in advance of the second; and that the difference lay in the degree of expansion of the lower segment, not in the dilatation of the os.

Next, take, what is also a matter of common experience, the condition of parts after delivery. The cervix is found hanging in the vagina, open, loosely relaxed, and elongated; while above, the walls of the uterus are firm and contracted, barely admitting the finger. From this observation (see also Matthews Duncan on *Mechanism of Natural and Morbid Parturition*), together with an examination of Braune's section of the frozen body of a female in the second stage of labour, it is evident that what occurs in the process of the first stage is not the mere opening up of a canal or tube which has been simply constricted in its middle; but, in addition to a constriction, there also exists a diaphragm, obstructing the lumen of the passage, and this obstruction is overcome by longitudinal as well as lateral stretching of this diaphragm. In easy labour the constriction and diaphragm disappear simultaneously; but it frequently occurs that the disappearance of the first is in advance of the second, and the canal is dilated to its full, whilst the diaphragm

has only been strained. No increase in the size of the os has taken place.

By studying the mechanism of the first stage we can readily understand the production of these two effects of expansion and longitudinal stretching. By muscular contraction the contents of the uterus are exposed to a uniform pressure. This force Schulz has called the "internal uterine pressure." It is exerted on the waters, and must, therefore, be equal in all directions; and as the lower portion of the uterus is the weaker, it must yield. This, then, is the expansive force. But, as the uterus also tends to shorten itself in its longitudinal diameter, there is also a longitudinal direction given to the force, whereby it becomes expulsive. This, from the tendency of the uterus to assume its original form, Schulz terms the "form restitution power"; but, as its direction is in the axis of the uterus, I would speak of it as the *axial* force: a term more congenial to our language.

When the membranes are yet entire, this axial force can act only through the ovum as a whole, waters and fœtus; and, therefore, at a disadvantage in proportion to the quantity of the liquor amnii. When this is large, as in hydramnios, the disadvantage is at its greatest; the force, in fact, being entirely converted into the uniform internal pressure. When the relative proportion between the quantity of waters and the size of the fœtus is less, as we find it normally, then the axial force is brought to bear on the fœtus; the fundus, acting on the breech, presses the child downwards, and the head is brought to bear on the lower uterine segment. When the internal uterine pressure is greater than the axial, the waters are forced downwards, past the presenting part, which recedes. When, however, the axial force is the greater, and can act through the fœtus, the contrary effect results; the water is forced upwards, and the head is brought into close proximity with the lower portion of the uterine walls. When the child is thus forced down during a pain, the uterine walls closely surround the head, and the membranes being still entire, the liquor amnii is divided into two portions; that in front of the head is called the forewaters. If the division be complete, then the entirety of the membranes is really a disadvantage; for now the forewaters but impede the more powerful action of the axial force. If the separation be incomplete, then the expansive action is only obtained, the internal pressure being still in excess of the axial. If the reverse be the case, the forewaters are but forced back above the head. By the mode of action, the internal uterine pressure is the force which tends to expand the lower uterine walls. Acting, in fact, like a glove-stretcher, its expulsive power can only act on the entire ovum, and is, therefore, at a disadvantage. The axial force is exerted mainly through the fœtus, and can exert its full strength only after the membranes are ruptured.

It seems, therefore, evident that *the function proper of the bag of waters should be limited to that of expansion only.* But the full dilatation of the os is effected, not by expansion alone, but also by longitudinal stretching. When, therefore, we find dilatation tardy from defect in degree or direction of the power alone, and not from any inherent character of the tissues, when once it is evident that the lower segment of the uterus is well expanded, the rupture of the membranes is the most effectual means of favouring the dilatation, by bringing the axial force into full action, and this irrespective of the degree of the size of the os.

By the researches of Dr. Matthews Duncan on the Power of Natural Labour, a beginning has been made to place this subject on a more purely scientific and accurate basis; but we are not yet in a position, and it requires qualifications which few possess to follow up the subject as he has done. He has, however, shown mathematically what has been long practically known, that partial evacuation of the liquor amnii is an efficient way of improving the power of the uterus, even when defective in amount. "It is a common belief," he says, "that the uterine pains increase in strength after the evacuation of the liquor amnii. Whether this be true or not, as commonly believed, I do not here consider. But it is certain that, if the uterine contractions remain of the same force after as before the partial evacuation of the liquor amnii, the power of the labour or the extruding force will be increased, as the

curvature of the contracting organ is increased." (*Researches in Obstetrics*, page 315.)

Having laid down the basis of our knowledge, it remains only to discuss the diagnosis of the conditions which warrant us in having recourse to rupture of the membranes before the full dilatation of the os. The first point is the determination of the degree of expansion of the lower uterine segment. We have seen that the size of the external os is no criterion of expansion. The os, in fact, may be very small, and yet expansion may be complete. It is by the internal os that we can best judge, but this is hard to reach, and difficult to determine its exact site. There is one means, however, of ready access, whereby we can form a proximate opinion: it is the degree of dilatation or updrawing of the vaginal *culs-de-sac*. This is a point which has been entirely left out in the consideration of the progress of the first stage. It is a matter of common experience to find, in the class of cases where we feel something is required to promote a labour with tardy dilatation of the os, that the upper part of the vagina is well expanded and drawn up, greatly increasing the perceptible diaphragm of the cervix, which alone obstructs the continuity of the developed canal. Now, we know that the longitudinal muscular fibres of the vagina run upwards, and are continuous with those of the body of the uterus, and that the attachments of the uterus in their upper portion correspond with the internal os. This portion, then, cannot undergo expansion without carrying with it the tissues which are in connection therewith. Consequently we find that, as the first stage of labour advances, the upper part of the vagina is dilated until it seems to coincide pretty closely with the upper part of the bony canal. When, therefore, a considerable portion of the lower segment of the uterus can be felt *in* the vagina, and not merely *through* its walls, expansion is certain to be complete, whatever may be the size of the parturient ring; and the tissues composing it are those of the cervix proper and not the uterus. Under such circumstances, I believe the membranes may be ruptured with advantage. It is, however, unnecessary in many cases to wait for the full development of the condition above described. I have taken the extreme state as being most readily understood, and indicating the direction in which our observations should be made.

Another class of cases, or it may be only an additional character to those of the first, are where the action of the uterus seems to be effecting, not steady dilatation, but extreme thinning of the tissue of the cervix; and also where the head is felt to be in close contact with the parturient ring, there being little or no bag of waters.

The next point to be considered is the quantity of liquor amnii; not the actual quantity, as is generally referred to when speaking of it being present in excess, but the proportion its amount bears to the size of the child, and also to the capacity of the amniotic sac. This latter is rarely quite filled; otherwise it would remain much more tense than it usually does in the intervals between the pains. If it be nearly or entirely distended, it will interfere with the power of restitution of form, by preventing alteration in the form of the uterus, and consequent action on the fœtus, even though the actual quantity of waters is not greater than ordinary. In this circumstance it must be regarded as really in excess, quite as much as where there is excess in actual quantity. Undue tension, therefore, of the membranes *during a relaxed state of the uterus*, must be regarded as unfavourable to the mechanism of labour, and as warranting an earlier rupture of the membranes than under other circumstances.

The liquor amnii must also be considered in excess, irrespectively of actual quantity, if it be unduly great in proportion to the size of the child. Here, again, it interferes with the action of the force which restores form, or the axial force. If, therefore, the parts of the child be not recognizable externally with ordinary facility *during a relaxed state of the uterus;* if *ballottement* be unusually facile, and especially can be felt during a pain, the probability is that there is a true excess of liquor amnii; and this condition would fully warrant the rupture of the membranes before the full dilatation of the os; the other conditions being favourable to the operation.

I have discussed the subject apart from the state of rigidity or dilatability of the cervix,

conditions which undoubtedly must be taken into consideration in determining any line of treatment in the first stage; but the subject of rigidity is one which requires discussion by itself, and would only tend to complicate and obscure the question.—*British Med. Journal.*

TUMORS OF THE VAGINA.—Dr. Neugerbauer has collected thirty-four cases of fibro-myoma of the vagina from different medical works, and has come to the following conclusions:

1. Solid tumors of the vagina not carcinomatous are rare.

2. These are generally either fibroids or fibromyomas, and very rarely pure sarcomas.

3. Their situation may be anywhere in the vagina. The development of the tumor is not in any way connected with the age of the patient.

4. The tumor usually grows slowly, but it can be very large and weigh even ten pounds.

5. They generally cause no inconvenience, but may be so large as to prevent childbirth.

6. The operation for their removal depends on what sort of a base they have. Severe hemorrhage can very easily occur. The result is in most cases favorable.

FOUR SUCCESSIVE RUPTURES OF THE UTERUS WITH FAVOURABLE TERMINATION.—Dr. J. M. Rose, of West Wingfield, N. Y., relates in the *Chicago Medical Journal and Examiner* the particulars of case in which rupture of the uterus occurred in four successive labours. The child escaped into the abdominal cavity, and was successfully extracted through the rent in the womb on each occasion. On the last the child was born alive. The usual symptoms of rupture were present on each occasion. The mother recovered completely after each labour.

HYPODERMIC INJECTIONS IN HERNIA have been used in France to relieve pain and spasm before employing taxis, for the reduction of strangulated hernia.

Original Communications.

THE PRINCIPAL METHODS OF EXAMINING THE NASO-PHARYNGEAL CAVITIES AND THEIR MOST FREQUENT DISEASES.

BY ADOLPH ALT, M.D., TORONTO.

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Otology, which a comparatively short time ago only has been taken up as a special branch of medical science, has as a necessary consequence led to a closer observation of an organ, which, though prominent in its appearance and service, had hitherto been nearly altogether neglected, *i.e.*, the nose and its surroundings. The diseases of this organ have recently been studied more carefully, and the results of these researches begin to attract the attention of a larger number of specialists. Of course, the Aurist and Laryngoscopist must needs be familiar with the diseases of the naso-pharyngeal cavities, and it is not my intention to teach them in the following anything new; but I think it may be of some interest to the general practitioner to get a knowledge of what has been accomplished in this most recent and smallest branch of medical science.

I. MODES OF EXAMINATION.

Whilst frequently enough our sense of smelling and our ear lead us to the right diagnosis—that the patient's nose is diseased—we need the following three modes of examination to find out the nature and seat of the affection in the nasal and the naso-pharyngeal cavities.

1. EXAMINATION THROUGH THE ANTERIOR NARES.

This mode of examining the nose being the easiest is also the oldest. The inspection may be done in the simplest way by taking hold of the *ala nasi* and stretching it outward and forward. Since the field thus open to aspect is a very limited one, the use of different kinds of specula has been adopted, thus doing away with the fingers and freeing both hands for other manipulations. The specula generally in use accomplish the same as the fingers do: they

stretch the lateral cartilaginous part of the nose and allow us to throw light into the latter. Among the different kinds of specula the one which bears the name of Dr. Goodwillie of New York is the simplest, and so far has done me all the service required. It consists of three branches of wire connected with each other on one and bearing loops on their other ends, which are inserted into the nostril and stretch it in the said way by means of their elasticity. After the nose has thus been opened by the speculum we throw light into it by means of a reflecting mirror. The light used is either the sunlight or artificial light (I prefer the latter). As reflector we may use the concave mirror with a central hole which is used for the examination of the ear, and it may either be held by a handle or, to free our hands, be attached to the forehead or illuminating apparatus.

By this mode of examination we get a good view of the anterior and lower (concave) portions of the middle concha, the lower concha, the septum narium and the floor of the nasal cavity. *Sometimes* we see also the posterior wall of the pharynx, the orifice of the Eustachian tube and the soft palate. *Zauful,* who recently (September, 1877, *Archiv. füe Ohrenheilkunde*) recommended the use of long, funnel-shaped specula (like the ear-speculum), claims that by his method he can *always* examine these latter parts most satisfactorily. Though I have no experience with his specula, the name of the author is sufficient proof that the examination of the nose through the anterior nares has thus considerably gained in usefulness.

If we look into the nose by aid of these instruments the mucous membrane shows a pale reddish tint. Both conchæ appear like tumours of the same colour: sometimes the bone shines through the membrane and adds its yellowish hue to the red. The lower concha is distant enough from the floor of the nose to allow us to examine the whole of the lower nasal meatus. The middle meatus (between lower and middle concha) is so narrow, especially in its posterior part, that we can see only about half of the convex (upper) part of the lower concha. This sometimes has a rough appearance, which is caused by some bony protuberances and must not be mistaken for a papillary swelling of the mucous membrane. To guard us against such a mistake it is well to use a probe which is bent in such a way as to remove its handle from the narrow field of examination. Above the lower concha, and lying a little farther backward, we see the free anterior edge of the middle concha. The upper concha is mostly invisible. *Michel* states that he sometimes was able to see the roof of the nasal cavity and even the opening of the sphenoid cavity. Nobody else seems ever to have been so fortunate.

The septum narium can be examined backward to its free edge and upward to the upper nasal meatus. It is mostly somewhat concave on one, and convex on the other side, and the yellow bone shining through the red mucous membrane gives it a peculiar appearance.

The normal mucous membrane is nearly altogether smooth, only at the edges of the conchæ it sometimes has a more velvet-like appearance.

2. Examination through the Posterior Nares.

Though by the method of examining the nose through the anterior nares we are able to detect a great many important changes, our examination will be incomplete unless we explore the cavities also through the posterior nares. This mode of examination, known under the name of rhinoscopy, requires a considerable amount of skill, and is more difficult yet, since we must to a greater extent rely on our patient; moreover, in a small percentage of cases we will be utterly unable to make a rhinoscopic examination, since the patient will counteract all our efforts, or because the space between the soft palate and the posterior wall of the pharynx is too narrow.

The instrument commonly used for this method is a small round mirror (similar to the laryngoscopic mirror) attached to a handle nearly at right angles. The mirrors generally in use vary in diameter from 1 to 1½ centimetres.

For the examination the patient must open the mouth wide, retract the lips, so as to show the teeth, keep the tongue lying at the floor of the mouth, and breathe quietly. This is for some patients a very hard task, and we must

exercise with them often for weeks before we are able to make a satisfactory examination. The uvula does not always interfere with our mirror; if it does it must be pushed aside or drawn up and forward by means of a hook or some similar instrument. If the patient is well enough exercised to bear the entering of the mirror we depress the tongue with a spatula, illuminate the pharyngeal cavity and push the small mirror back into the mouth on one side of the uvula, thereby carefully avoiding to touch the arcus palatinæ or the posterior wall of the pharynx, which at once will produce reflex contractions. The illumination is done again by the same reflecting mirror, the forehead mirror deserving the preference (or the one fastened to the illuminating apparatus).

We commonly begin our examination by looking for the septum narium in the image of the small mirror. This appears as a straight wall running from above, downwards and separating the whole field into two parts. While doing so we must constantly keep in mind that the more we move the handle of our mirror downward (that is, the mirror to the perpendicular position) the farther forward lie the parts seen in the image and the more we move the handle upward (that is, the mirror towards the horizontal position) the farther backward lie the parts we see in the mirror. Before we have become so accustomed to this manipulation that we can look at all the different parts which we can see with the mirror without thinking of the movements of our instrument, we have not gained the skill which is absolutely necessary for a satisfactory rhinoscopic examination.

Now, what can we see with the mirror? First, the posterior wall of the pharynx and the fornix pharyngis, which are attached to the upper vertebrae and the base of the skull. In the cupola pharyngis we find that the mucous membrane has a ragged irregular appearance, which is caused by the adenoid tissue embedded in it and called the tonsilla pharyngis. At each side the posterior wall of the pharynx passes over into a small excavation called Rosenmueller's fossa, in front of which we see the elevated tuberculum with the pharyngeal orifice of the Eustachian tube. At each side of the septum narium we look into the choanæ and see the posterior end of the concha mediæ and the middle nasal meatus; only sometimes we see parts of the other conchæ. The conchæ have a more yellowish, sometimes metallic lustre, in comparison with the reddish colour of the other parts. If we move the handle of our mirror lower down yet we see the nasal side of the soft palate.

3. Palpation.

Palpation of the nose either through the anterior or posterior nares is probably as old a method as the inspection through the anterior nares. Though most diseases can be detected and studied by the former two methods of examining, this third one may in some cases be necessary to complete our examination and give, for instance, information about the elasticity and consistency of a tumour. The mode of palpation of the nose through the anterior nares need not be explained. To be able to palpate the nose through the posterior nares requires often preparatory exercise. It is good in such cases to begin by slightly touching the pharynx with one finger, and to progress gradually as the patient gets accustomed to it. We use the index finger of the right for entering the left and the one of the left for entering the right half of the nasal cavity of the patient. The parts we can explore by this method are, besides tumours, Rosenmueller's fossa, the tuberculum and the orifice of the Eustachian tubes.

II. Diseases of the Nose.

a. Acute catarrhal rhinitis.

The most frequent among the nasal diseases is the acute catarrhal rhinitis. It is commonly caused by taking cold; sometimes by inhalation of irritating vapours, the internal use of iodide of potassium, etc. The symptoms are: swelling of the mucous membrane, an abnormal secretion, loss of the sense of smelling (sometimes also tasting), and in some persons fever. The secretion from the mucous membrane, first serous, becomes later on mucoid, and finally, more or less muco-purulent.

The swelling of the mucous membrane varies in degree, but mostly is such as to produce entire stenosis of the nose. This swelling is probably due to the erectile bodies which lie between the periosteum and the mucous membrane of the

conchæ (first described by *Kohlrausch*). By inspection we see that especially the conchæ are greatly swollen, their mucous membrane is œdematous and very red. The same picture is obtained by the rhinoscopic examination.

The disease lasts from one to two weeks, and generally ceases without medical aid. Sometimes, however, it goes on into a chronic state. In these latter cases it is often very useful to inject a solution of nitrate of silver with the posterior nares syringe into the choanæ. Another mode of treatment is to blow a powder of nitrate of silver and talcum (1-3:20) into the nose either through the anterior or posterior nares (the latter is preferable). Sometimes the patients suffer from sneezing fits. These are commonly checked by morphine, which is best administered in the shape of a snuffing powder.

The disease may spread over the adjoining mucous membranes, especially the lachrymal duct, conjunctiva, Eustachian tube, pharynx, larynx, etc. If it is accompanied by much and severe headache we presume that the catarrh has spread to the frontal cavities.

b. Acute blennorrhoic rhinitis.

This form of nasal disease is comparatively rare. It is either caused by direct inoculation of blennorrhoic secretion from other organs upon the mucous membrane of the nose, or by traumatism, or it develops from a simple catarrhal rhinitis. The examination by inspection and by rhinoscopy reveals a higher degree of swelling of the mucous membrane than in acute catarrhal rhinitis. The main characteristic symptom is, however, only the blennorrhoic secretion. Like all purulent inflammations it leads frequently to superficial ulcerations and can be propagated upon the mucous membrane of the parts surrounding the nose. The blennorrhoic rhinitis lasts always several weeks, even months. In very severe cases, especially in children, it may lead to death by causing affections of the brain. The ulcers sometimes produce caries of the bone and cartilage. The worst cases are generally produced by infection with gonorrhoic secretions.

The best remedy for this disease (besides cold applications and leeches in the earliest stage) is nitrate of silver in a five grain solution, applied by the posterior nares syringe. Great care should be taken to cleanse first the nasal passages from all crusts and pus, which is best done by the posterior nares syringe or a common Davis' syringe. Also is it well not to inject more than two or three drops of the solution. Tannin, alum, etc., do not yield as good results as the nitrate of silver.

c. Chronic purulent rhinitis. Ozæna.

The chronic purulent rhinitis develops from an acute catarrhal, more frequently from an acute blennorrhoic rhinitis. It occurs, however, chiefly in scrofulous or syphilitic individuals. The first stage of the disease is that of hypertrophy of the mucous membrane. The latter is immensely swollen and bluish red. If the disease is allowed to run its course it leads to atrophy of the mucous membrane. We find it then very thin and pale and its epithelial cells dim, so as to give it a dull appearance. Only few cases of chronic rhinitis show a profuse secretion, in most of them the secretion is very sticky and apt to get dry. The dried secretions then form crusts on the surface of the mucous membrane which often are very large. The secretion is mainly a purulent one, but we find besides the round cells a great number of dead and thrown off epithelial cells in it. The crusts have a very characteristic greenish appearance: sometimes we find red spots in them, remains of small extravasations. They adhere more or less firmly to the mucous membrane. These crusts, when remaining in the nasal cavities, very soon decay, and thus produce a foul smell, known as ozæna. This symptom is frequently what brings the patient to the physician, and this is usually very late. The disease is very apt to spread over the neighbouring cavities. A stinging pain in the cheek and forehead commonly announce these complications. The hyperplasia of the mucous membranes often leads to papillomatous new formations. As in the acute blennorrhoic rhinitis we find not unfrequently ulcerations, which sometimes produce caries. A most common complication is that the external skin of the nose swells, becomes infiltrated and excoriated. The disease is a very tedious one, but if treated with the necessary patience, can mostly be cured. Only in cases in which the mucous mem-

brane is totally atrophied and the sense of smell lost, the prognosis is a very bad one.

The treatment consists in removing the fluid and dry secretions and reducing the mucous membrane to its normal state. The first is done by carefully syringing the nose with lukewarm water, in which we may dissolve some chlorate of potash (one teaspoonful to a pint of water). This has to be done two or three times a day and to be continued until the nasal passages get free. It is best to use again Davis' syringe in the way above described. If the disease originated on a specific base we must, of course, at the same time treat the patient accordingly. After the nasal passages have been carefully cleaned the application of a five or ten grain solution of nitrate of silver with the posterior nares syringe is of great benefit; sometimes its administration in the shape of a powder may be preferable. If all the secretion is removed the ozæna will cease. The hypertrophic parts of the mucous membrane (especially occupying the conchæ) may be treated by the application of nitrate of silver in substance, or be removed by galvano-cautery, which latter causes comparatively little pain.

d. Epistaxis (Hæmorrhage).

Hæmorrhage from the nose is of comparatively frequent occurrence. Its ætiological moments are so manifold, that it would take too much space to consider them in this paper. In most of the cases the hæmorrhage ceases without medical interference by coagulation. Where this does not take place readily we may first apply external compression. If we do not stop the bleeding that way we may fill the anterior nares with picked lint. In using these two methods we have to watch carefully whether the blood does not run down into the pharynx. If it does, we may resort to cold or astringent injections (alum, tannin, zincum sulfuricum, etc.). The only remedy, however, which will surely lead to a satisfactory result is the stopping up of the posterior and anterior nares at the same time. For the stopping up of the posterior nares Belloc's tube and, if this is wanting, an elastic catheter may be used with great success.

It would lead us too far to speak here also of the syphilitic affections and tumours of the nose. By the above-described methods of examination we are, of course, enabled to make a sure diagnosis. Their treatment is according to general rules, and every practitioner is acquainted with those.

A CASE OF ADENOID CANCER OF THE RECTUM.

BY GEO. WRIGHT, A. M., M. D., TORONTO.

The following history of a case which came under my own observation and was most interesting in some of its features, is presented with the hope that lessons it inculcates may not be altogether valueless :—

Mrs. S——, age 39, the mother of seven children, first observed the symptoms of the disease which terminated her life about fifteen months ago, after the birth of her last child.

This is the point from which she dates the commencement of her illness. There is strong reason, however, for believing that the trouble began to develop at a considerably more remote date.

The first indication of disease was a gnawing pain and tenderness in the left iliac fossa. During her last pregnancy the patient suffered unusually, especially in this region. After the birth of the last child, however, all the symptoms became more aggravated. There was tenderness in the left iliac region, with exacerbations of pain at intervals varying from a few days to several weeks. These periodic attacks of pain were generally so severe as to require urgent treatment. From a friend I learned that, since December last, she has been passing considerable quantities of mucous with more or less blood; that she has had several of these attacks of extreme pain commencing in the iliac region and extending more or less over the entire abdomen; that her bowels have been rather obstinately constipated during all this period, and that the constipation became more aggravated every week until her last illness.

I was called to see Mrs. S—— on the morning of Tuesday, 26th June last. I found her suffering extreme pain over the entire abdomen, the left iliac fossa and the whole of the corresponding side being the parts where the pain was

most exquisite. There was also persistent vomiting the stomach rejecting everything almost immediately. There was more or less tympanitis, but it was most marked upon the right side, particularly in the iliac region. The temperature was very slightly elevated and the pulse about 76-78. I ordered the patient powders consisting of 5 grain doses of Bismuth Trisnit. and grain doses of Pulv. Opii every four hours with the view of controlling the more urgent symptoms of vomiting and pain. In the evening I received a message stating that the patient was no better. I then ordered the following mixture:

℞ Acid Hydrocyan Dil ..... *m*iiss.
Liquor Bismuth ..... ʒss.
Morph. Sulph ..... gr¼.
Aquæ ..... ad ʒss.

M.

The dose to be taken every four hours.

On the following morning, June 27, I found the patient much more comfortable. Vomiting had entirely ceased, and there was comparative freedom from pain and tenderness. Pulse 72. As the bowels had not been moved since the previous Sunday, some four days, I ordered a full dose of castor oil, with directions to give an injection in three hours if the oil had not operated. Thursday, June 28, the patient moderately comfortable, but there had been no operation in the bowels after the oil and injection of the previous day. Fearing, from the symptoms and the previous history of the case. the possibility of malignant disease, I advised a consultation, and met Dr. Aikins on the same afternoon. After a very careful inquiry into the history of the case and a study of the symptoms as they then presented themselves, it was deemed advisable to persevere in our efforts to move the bowels; and accordingly two ounces of castor oil were ordered, but without producing the slightest effect. I then determined not to push the effort to evacuate the bowels any further for the time being, as each successive attempt only seemed to aggravate the sufferings of the patient. I, therefore, ordered the following pill:

℞ Hydrarg. c Creta ..... gr. i.
Ext. Hyoscyam ..... gr. iiss.
Ext. Nuc. Vom ..... gr. ¼.
Morph. Sulph ..... gr. $\frac{1}{12}$

One pill every four hours.

On the following day I found the patient much more comfortable—ordered the same treatment to be continued.

Sunday, July 1st.—Patient still very comfortable. I thought it but right, however, to make another attempt at evacuating the bowels, and so ordered a two ounce dose of castor oil again, with instructions to follow it up in three hours by an injection of soap suds with an ounce of turpentine.

Monday, July 2nd.—Found my patient very uncomfortable. The renewed attempt at procuring a motion from the bowels had no other effect than that of increasing the uneasiness of the patient. Dr. Aikins again saw the patient with me, and we decided upon still further pushing the effort to move the bowels. The tympanitis, only slight at first, had increased so much as to be a source of considerable distress to the patient. Repeated the same dose of castor oil, adding half an ounce of spirits of turpentine, and following it with another injection of soap suds and turpentine. In using the injection on this occasion, I introduced an ordinary stomach tube into the rectum and passed it up about nine inches, so as to apply the force of the injection as near to the point of obstruction as possible, if such there was. The only result of this effort was the almost immediate escape of the injection with a small amount of mucous and blood, and a number of pieces of white cheesy-looking matter, having the appearance somewhat of curdled milk. In the evening the injection was repeated, and with a like result.

On the following day a consultation was called with Dr. H. H. Wright. We were still hopeful, after a careful inquiry into all the symptoms past and present, that the case was only one of obstinate constipation resulting in paralysis of the bowels, and determined to direct the treatment with a view to overcoming this condition. We ordered the following prescription:

℞ Ext. Ergotæ ..... ʒiij.
Ext. Belladon ..... ʒss.
Liquor Strychniæ ..... ʒi.
Aquæ ad ..... ʒiv.

M.

A tablespoonful every four hours.

This mixture, ordered on July 3rd, was continued until the 8th, and with no other result than that of soothing the patient's pain.

We then resolved to try the effect of small doses of turpentine frequently repeated, and ordered the following mixture:

℞ Morph. Sulph ..... gr.ii.
Liquor Ergot.....
Spt. Terebinth āā..... ʒiv.
Syrup Acaciæ ad ..... ʒiv.
M.

A tablespoonful every three or four hours.

This mixture was very well borne and had the effect of soothing pain and controlling to some slight extent the tympanites which had by this time assumed somewhat alarming proportions. Otherwise there was no favourable change.

We again tried the effect of a large dose of turpentine and castor oil, followed by injections carefully administered, but with no better success. The condition of the patient had now become so alarming from the excessive tympanitis which had supervened despite every effort to control it that we discussed the propriety of introducing the hand into the rectum and reaching the point of obstruction if possible. It was agreed that this was the only hope of obtaining relief for the patient; and accordingly on the 14th, after apprising the patient of the nature of the case and obtaining her consent to the operation, it was performed under the influence of chloroform. On introducing the hand and passing it up to the sigmoid flexure, a tumour of firm consistency and about the size of a turkey's egg was discovered in that region. It seemed to so completely obstruct the passage, that any effort to overcome it was entirely unavailing. The patient sank steadily and died within forty-eight hours after the operation.

I obtained the consent of the husband and friends to make a *post-mortem* examination, of which the following is the result. On opening the cavity of the abdomen we found the tumour before observed at the junction of the sigmoid flexure of the colon with the rectum. Its removal and examination disclosed the following conditions. The growth seemed to have originated in the mucous membrane of one side of the bowel and to have gradually increased in size until it reached the opposite side where it had formed adhesions and completely occluded the passage. Dr. Zimmerman kindly submitted portions of the tumour to microscopical examination and discovered it to be what is recognized as adenoid cancer.

This case was remarkable for its obscurity. The patient's age did not justify very strongly the opinion that malignant disease existed. Statistics show that only a comparatively small number are the victims of the disease at this age. There was absolutely none of the cachectic expression commonly observed in such cases. The temperature never was above the normal. The pulse was alike natural until within a few days of death. The character of the discharges rather indicated chronic ulceration of the bowels resulting in gradual occlusion. But the ulceration, as the sequel demonstrated, was only a result of previous malignant disease.

We are reminded by the results of this case, how invaluable are *post-mortem* examinations. Without such an examination in this instance we would not have been justified in pronouncing malignant disease as the cause of death, as there were really none of the prominet symptoms present except pain in the region of the complication, and this might have been very properly accounted for as an effect of the ulceration present.

We are only confirmed in the opinion, often before expressed, that professional men cannot be too urgent in their desire to pursue the investigation of every obscure case to the utmost possible limit. It is only by such means that additional light can be thrown upon the varied manifestations of disease in the human system.

Colonial Degrees.—The *London Gazette* of the 24th August contains an official notification to the effect that Her Majesty has granted letters patent declaring that the decrees of Bachelor and Doctor of Laws and of Medicine hereafter to be granted or conferred by the University of the Cape of Good Hope shall be recognized as academic distinctions and rewards of merit, and be entitled to rank, precedence, and consideration in the United Kingdom and in the colonies and possessions of the Crown throughout the world as fully as if the said degrees had been granted by any University of the said United Kingdom.—*London Lancet.*

Translations.

From *Lyon Medical.*

Treatment of the Albuminuria of Pregnancy by Jaborandi.

Dr. Langlet (of Rhéims) successfully employed jaborandi in a case in which the rapid course of the symptoms did not seem to allow time to have recourse to the milk diet, which has been so successful in the albuminuria of pregnancy. In this case, reported by the author in *L'Union Medicale de l'Est*, a woman three months advanced in pregnancy had presented oedema of the legs for six weeks. For some days she had been subject to an oppression so violent as to place her life in jeopardy; the quantity of urine, excessively small and highly charged with albumen, was in no way affected by the ordinary diuretics; the symptoms which precede or accompany eclampsia were already present, and the question of the induction of abortion had been broached. It was at this juncture that three grammes (45 grains) of jaborandi leaves in infusion were administered; the same day an abundant salivation was produced; the diaphoresis was insignificant, but instead there was an augmentation in the quantity of the urine voided—a quantity which became quite considerable during the following days. The patient thus took the jaborandi for sixteen days without interruption, and in this space of time resorption was gradually accomplished, the liquid effused into the pleuræ disappeared, and all the general symptoms amended. The albumen also progressively decreased, so that at length there was no longer the slightest trace of it in the urine, and the accouchment was accomplished under excellent conditions, the child being healthy. M. Langlet supplemented this observation with some interesting reflections. In the first place, in this case, the jaborandi was given in a continuous way, whilst ordinarily it is given for periods, more or less separated from each other, lasting two or three days each. In this case M. Langlet acted as he did because he desired to procure a continuous action of the remedy. This method of administration has had one drawback, which is that it produced a veritable hæmaturia, the result of the excess of work thrown upon the kidneys, and of the congestion which accompanies it. This hæmaturia, however, has had no untoward results, but it probably might have been avoided by giving the remedy at intervals. M. Langlet also remarked that increase of the urinary secretion is not usually noted among the effects of jaborandi, although M. Rendu had previously remarked it. It is the sweat, and more especially the saliva, whose secretion is excited by the remedy.—*Journal de Medecine et de Chirurgie Pratique.*

From *Lo Sperimentale.*

Podophyllin in the Treatment of Diabetic Constipation and Hæmorrhoids.

BY DR. ROUSOCLET.

The author published in the *Gazzetta Degli Ospedali* an article on the treatment of habitual constipation by podophyllin. He insists that the treatment is generally pursued for too short a time. He states that two or three months are required, according to the duration of the constipation, in order to contract a regular and lasting habit; and also that it is necessary, in order to facilitate the digestion, to visit the privy every day at the same hour. He commences at first with a pill of one centigramme (about $\frac{1.5}{10}$ths of a grain), increasing the amount by one pill until an effect is produced, and he limits this to fifteen days. Then he gives it only every second day; a week later every third day, and so on, adding a day for every week. If any irregularity occur he begins again with the daily dose and decreases as before. For the administration he prefers to the hour of bedtime, which has been recommended, that of the last meal, when he gives it with the first spoonful of soup. He also recommends persons who are in the habit of taking an early breakfast in the morning not to visit the privy until after they have taken this meal, which is, according to him, an excellent way of establishing and maintaining the habit. Dr. Riviere also recommends this remedy in the treatment of hæmorrhoids, not only in persons in whom this inconvenience is transient and unattended with serious consequences, but also in patients afflicted with per-

manent hæmorrhoids, and who are compelled, sooner or later, to have recourse to some radical treatment. Dr. Riviere gives one or two pills, of a centigramme each, so as to simply soften the fecal bolus. In cases of permanent hæmorrhoids it is necessary to repeat the dose daily. Nevertheless the author has seen patients suspend the treatment after one or two months and enjoy a long respite; in some cases, also, it has happened that they complained no more.

Paralytic Luxations (so-called Congenital) of the Femur.

The following is a *resume* of the conclusions of M. Rechis in a paper communicated to the French Association for the Advancement of Science:—

1. From the class of luxations called congenital we must now separate paralytic cases.

2. These luxations follow amyotrophies, and can, like the affections giving rise to them, occur at all ages, although seldom observed except in the young.

3. For these luxations to occur two conditions are necessary,—1st, Paralysis of a group of muscles; 2nd, The integrity of its antagonistic group.

When all the muscles moving the articulation are paralysed there is great laxity, but no luxation.

4. In the hip, iliac luxations are the most frequent, and are due to paralysis of the gluteal and external rotator muscles, and to the functional integrity of the adductors.

Catgut to Arrest Hæmorrhage from Bones.

Dr. Riedingen, in *Centralllb. f. Chirurg.*, relates a case of hæmorrhage from the nutrient artery of the tibia arrested by the insertion of catgut thread to fill the nutrient foramen. The bleeding ceased immediately, and union by the first intention ensued. Digital pressure had been tried for a long time and failed. Subsequent experiments on dogs, by insertion of catgut in the medullary canal and closing the wound, proved that healing readily takes place and the catgut is absorbed.

From *Rivista Clinica di Bologna.*

Chlorate of Potash in Pulmonary Phthisis.

Dr. Kend Sender asserts that chlorate of potash has a most important influence upon pulmonary phthisis. This action was discovered and put to the proof in America, where it has been administered to phthisical patients in the enormous dose of 15 to 30 grammes (225—450 grains) per day. Dr. Lyncouds considers this medicine as one of those which are of eminent value in consumptive cases. Dr. Hobert has employed it, not only in diseases of the chest of chronic course, but also during the decline of acute affections, such as bronchitis, catarrh, and pneumonitis. Dr. Kead administers it in doses of 25 to 30 centigrammes ($3\frac{3}{4}$ to $4\frac{1}{2}$ grains) per day, and, if he find the pulse accelerated, he never exceeds three grammes (45 grains) per day. The chlorate of potash is a substance which gives up its oxygen to the tissues with which it comes in contact, and to the organisms in general into which it is absorbed. It is most useful in laryngeal phthisis, in which small doses are sufficient; but, if the bronchi and the pulmonary cells be affected, the larger doses become necessary. Association with a narcotic assists the action of the remedy, and, amongst the narcotics, the author prefers codeine. Chlorate of potash is an oxygenator of the blood, and makes its influence felt even upon the venous blood.

An Extraordinary Case.

In the *Revue de Ther. Med. Chir.* a case is reported which, from the symptoms, no physician would have hesitated to diagnose *typhoid fever.* The patient, after five days' illness, was admitted into the Charity Hospital of Paris under M. Hardy, and was under his treatment for 18 days. The symptoms were,—*stupor, delirium;* the *abdomen* was *distended;* there was *gurgling in the right iliac fossa; diarrhœa, with stools of a brown colour, tongue dry and fuliginous; sordes about the nostrils; exanthematic spots on the abdomen; mucous rales* over the whole extent of the lungs; thermometric variations in the two first weeks, followed soon by the variations characteristic of the second

stage of the disease; one or two attacks of *epistaxis*.

The autopsy revealed an error in diagnosis, which the most skilled clinical observer could not have avoided. *Tubercular granulations were found on the surface and in the interior of all the organs*, without exception. The pleuræ were covered and the lungs stuffed with them. *The spleen* was three times the normal size, full of granulations on the surface and in the interior. The liver diaphragm and the meninges were in the same condition. M. Hardy expected at least to find in the intestine some signs of typhoid fever having been present along with the tuberculosis. There was no trace of intestinal ulceration. Only some scattered granulations were found on the mucous membrane. The swollen bronchial and mesenteric glands showed tubercular granulations in spots. It would be impossible to see organs more stuffed with tubercle. They were literally infiltrated. In this case, so full of interest, the phenomena of congestion due to tubercle were confounded with those of febrile congestion. In fact, it was a case typical of sub-acute tuberculosis. There was nothing present to cause one to doubt that it was a well-marked case of typhoid fever. It is impossible to say how, in such a case, we can avoid an error in diagnosis. *Experientia fallax; judicium difficile.—L'Union Medicale du Canada.*

From *Rivista Clinica di Bologna.*

Chloral in Simple Wounds.

Under its influence these take on a healthy aspect, and redundant fleshy granulations secrete a pus of laudable character. Erasmo Paoli, Cusco, Panas, and Lucas daily employ it with very great success as the only topical application to simple wounds. *In atonic ulcers* it is a detersive, but in these, as in simple wounds, it is convenient to use it in solution of 1 in 100. Dr. Lucas treats old varicose ulcers in no other way. Dr. Vallin, of Val-de-Grace, likewise employs it in the cure of the atonic ulcers which are so often met with in sailors and soldiers in warm countries. His formula is the following:—Hydrate of chloral, 1 gramme; glycerine, 30 grammes; water, 50 grammes.

From *Lyon Medical.*

Treatment of the Dyspepsia of the Newly Born.

M. J. Simon describes the dyspepsia of infants at the breast—a dyspepsia which may be either stomachal or intestinal. After insisting upon the qualities that the milk of a good nurse should possess, M. Jules Simon recommends, in case of constipation, a half teaspoonful of calcined magnesia. "I much prefer," says M. Jules Simon, "the calcined magnesia of Henry to all other magnesias; and even to all other laxatives, syrup of chicory, oil of sweet almonds, manna, calomel, &c. To all the other magnesias, because it alone determines certain results without griping; and to all other laxatives, for the reason that the syrup of chicory by itself is not always efficacious, and that associated with the syrup of rhubarb it provokes rather violent griping. As for calomel, I do not approve of its daily employment according to the English practice; lastly, manna and oil of sweet almonds, pure or mixed with some drops of castor oil, are often very badly digested, and give rise to veritable dyspepsias. It is then to calcined magnesia that I advise you to have recourse, and especially to Henry's magnesia, which is one of incontestable superiority, as competent chemists have pronounced it. It is heavier under unity of volume; it is suspended in water as an impalpable powder, and, an undeniable advantage, its action is never at fault.

"Once having fixed upon the dose necessary for each infant, you will be able, with all confidence, to leave to the nurse the care of giving this always harmless remedy as soon as the stools become mealy and infrequent. As a matter of course you should at the same time recommend daily baths, and simple or emollient clysters, containing a tablespoonful of oil of sweet almonds or of glycerine.

"In case of hepatic congestion it is necessary to discontinue the baths and give an emetic (syrup of ipecac); as for nervous phenomena, they should be combatted with cherrylaurel water (10 grammes) or with a draught containing 5 grammes of syrup of codeia.

"Cutaneous eruptions will be relieved by

daily baths in an infusion of walnut leaves, or of tepid water charged with a dessertspoonful, per glass, of the following glycerole: borax, 4 grammes; glycerine, 40 grammes. Afterwards, dust the parts over with powdered talc."

Finally, for diarrhœa, M. Jules Simon recommends the following draught:

Laudanum (of Sydenham)	1 drop.
Subnitrate of Bismuth.....	4 grammes.
Lime water	10 grammes.
Mucilage	100 grammes.
Syrup.....	20 grammes.

Rivista Clinica di Bologna.

Bromine.

As the croupous membrane is dissolved in a solution of bromine and bromide of potassium more rapidly and readily than in any other substance used in the treatment of diphtheria, therefore Schultz uses bromine by inhalation in diphtheritic and croupy processes. He employs a solution of pure bromine and bromide of potassium (aa grammes 0,30 = 4½ grains) in 150 grammes of distilled water. Into this solution he dips a sponge, which, enclosed in a paper funnel, he applies to the nose and mouth, as in chloroform inhalation. He repeats the inhalation, which lasts five or ten minutes every half hour. The odour of the bromine is sufficiently well tolerated, even by children, when carefully diluted. The preparation must be kept well stoppered and in the dark, on account of its volatility and its being altered by the light. (Dr. Ozanam, in the *Gazzette des Hopitaux*, about the end of the year 1859, made known the benefits obtained from bromine in croup, and recommended its use in the following manner: Bromide of potash and pure bromine, each 10 centigrammes. Distilled water 100 grammes (or 1 in 1,000)—mix. It forms an amber, coloured liquid, and he gives it in a mucilaginous vehicle in from 1 to 5 drops up to 30 in the day according to the degree of tolerance. This dose he gives as a curative agent; as a preservative, 3 to 6 drops per day. and as a disinfectant in case of epidemics in the manner following: Pure bromine, 2·5 drops. Pour into a little dish with common water, and keep in the room, removing it at night, because in a closed room it may become offensive or injurious. This was Ozanam's method—a method which Schultz to-day seeks to revive as his own, but which the lapse of 18 years has not sufficed for the present reviewer to forget.)

From *Lyon Medical.*

Good Effects of Arsenic in Albuminuria.

Semmola, according to Prof. Jaccoud, recommends the employment of granules of arsenious acid in the treatment of Bright's disease, at the time at which we commence to give meat to the patient after the milk diet. According to M. Jaccoud's own observations, the absorption of albuminoids is promoted by this remedy. The researches of Lauder Brunton seem to confirm this view. This author, in fact, found that in certain cases the absorption of albuminoid matters by the intestine is a cause of albuminuria, of intermittent form, and in relation with digestion; that in this case the utility of arsenic is demonstrated, that that of pancreatine is probable; and lastly, that quinine increases the proportion of albumen voided.—From *Bulletin de Therap.*

From *La France Medicale.*

On account of an article which appeared in the "*Annee Medicale*" on the *Formation of corrosive sublimate in a mixture of calomel and sugar*, taken from *Osservatore Medical Siciliano* (Nos. 1 and 2, 1877), M. Jolly, of Paris, undertook a series of experiments to investigate the matter, and found that certain physical agents, such as heat and light, and certain chemical agents, alkalies and acids, did decompose the salt with the production of corrosive sublimate.

"It results from these experiments (we quote M. Jolly's article in *La France Medicale*) that the alkalies or their carbonates act energetically upon calomel, determining the formation of a notable quantity of corrosive sublimate. The earthy bases, lime and magnesia, exercise a similar but weaker action: the action is promoted by the presence of water. We have analysed several samples of calomel pastilles prepared some months ago; in some of these pastilles we found a trace of the sublimate. These results, it will be seen, are not in accord with those of the Italian *savants*, but the disaccord is perhaps more apparent than real.

"The fact is, in Paris only the refined sugars are employed, and these are pure and neutral; whilst in certain localities, chiefly in the neigh-

bourhood of sugar factories, they employ, sometimes even in pharmacy as well as for other domestic uses, the sugar of the first crystallization called *sucres bruts* (native sugar.) These sugars are very white, but they always contain a variable quantity of hydrate of lime, left intentionally by the manufacturer so as to prevent, as far as possible the formation of *sucre interverti.* The 'native sugar' of the colonies is, on the contrary, always acid. The foregoing experiments enable us to foresee that if calomel and 'native sugar' be mixed, the alkali or acid which it contains would suffice to form a certain quantity of the sublimate. It is not then the sugar which acts, but the impurities which it contains. The deductions from this work are: that in medical practice we should abstain from mixing calomel with acids, alkalies, "native sugars," etc."

From *La Andalucia Medica.*

Treatment of Certain Forms of Diarrhœa by the Chlorate of Potash.

Dr. Vonfigli employs this remedy in the diarrhœas which occur chiefly in cachectic patients affected with nervous disorders, and which consist in very frequent serous evacuations; these diarrhœas, which, according to the author, are vasoparalytic, are proof against astringents and narcotics, and are the prodromes of death in cachectic foreigners. Sases's experiments have shown that the chlorate of potash increases the contractility of the muscular walls of the vessels, and it was on this account that Dr. Vonfigli tried the remedy, and it has given him favourable results in this affection: in order, however, to secure a complete disappearance of these attacks it is necessary to employ the medicine during a long period, and in obstinate cases to increase the dose. If the treatment be suspended all the good effects disappear unless the general condition have been improved. The dose varies from 2 to 10 grammes (30-150 grains) in the 24 hours according to the gravity of the case; from analogy the author supposes that the chlorate of potash ought to exercise a beneficial effect upon the diarrhœas of the aged, in cholera, and certain serous fluxes of hot countries.

From *La France Medicale.*

On the Indications for Thoracentesis.

At the late meeting of the *Association Francaise pour l'Avancement des Sciences* at Havre, M. Potain read a paper. In mentioning the indications for thoracentesis, abundance of liquid effusion, age and nature of the effusion, and the circulatory difficulty to which it gives rise, he insisted particularly upon the diagnosis of the abundance of the effusion, and upon the difficulty imported into the diagnosis by pulmonary hyperæmia.

The difficulties of diagnosis relative to the abundance of fluid effused depend chiefly upon the variable degrees of compression of the lung, and upon the adhesions to the chest-wall which it has been able to form. When these adhesions are partial they play only a small part and do not prevent the lung from retreating from the thoracic wall and being crowded up by the liquid. But pulmonary congestion, when it exists in a pronounced degree, diminishes the retractility of the lung, which remains voluminous and sunk in the liquid, and thus is produced an elevation of the level of effusion which leads one to believe it to be much more abundant than it really is.

M. Potain thinks that the most certain signs of pulmonary congestion, associated with effusion, consist in the considerable extent of the souffle, and in the persistence of thoracic vibrations much below the level of the liquid. It is to the pulmonary congestion that we must attribute the pleural crepitation. M. Potain thinks that this crepitation is absolutely distinct from pleural friction; it is fine, dry, and limited to inspiration; if it were due to pleural friction it ought to be heard at both times.

The total extraction of the liquid constituting a favourable condition for the production of the pulmonary congestion, so often seen after thoracentesis, it is necessary to be careful to extract only a part of the fluid effused, and for this purpose to possess as precise indications as possible as to the degree of evacuation of the pleura from time to time during the operation. With this object, M. Potain fits on to the tube of the aspirator a little manometer, which indicates, each time that its cavity is brought into connection with the pleural cavity, the different degrees of thoracic aspiration, which increases proportionately to the removal of the fluid. When this pleural aspiration is seen suddenly to increase he stops the flow of the effusion.

From *L'Union Medicale.*

At the session of the *Academie de Medecine*, on the 11th Sept., Dr. Laborde read a paper upon "*The Physiological Action of Salicylate of Soda and the Mechanism of its Action.*" M. Laborde thinks that he may deduce from his experiments the following conclusions :—

The physiological action of the salicylate of soda is predominantly *elective*, over the phenomena of sensibility to pain, or *consciousness*. The mechanism of this action resides in the influence exercised by its chemical properties, not upon the conductive power of the sensory nervous filament, but upon the centre of reception and elaboration of peripheral impressions. This action of the salicylate of soda upon the functional phenomena of sensibility, and consequently upon the organic cerebral seat of these phenomena, explains the effects produced upon painful symptoms in the morbid state; and it is principally, and perhaps exclusively, by virtue of this analgesic property that salicylic acid operates in the cure of articular rheumatism. The experimental researches which served as the basis of this paper were made in the laboratory of Prof. Beclard.—*Com. MM. See, Gueneau de Mussy, Vulpian.*

At the same meeting "M. Jules Guerin exhibited to the *Academie* a number of pathological specimens and photographs, showing the series of intestinal lesions observed in typhoid fever.

"M. J. Guerin said that these preparations and drawing showed the characters of the typhic intestinal lesions in their relation to the etiology which he had pointed out; that is to say, that these changes are subordinate (or due) to the vesicating and destructive action of the fecal matters in contact with the intestinal mucus, and that they are in some way proportionate to the quantity, the quality, and, so to speak, the age of the typhic ferment."

From *L'Union Medicale.*

TREATMENT OF PUERPERAL METRORRHAGIA.

In case of uterine hæmorrhage occurring after delivery, Dr. Donovan employs successfully the tincture of Cannabis Indica, in the dose of 1 gramme and 20 centigrammes. The action of this remedy is rapid and certain, even when the ergot of rye has failed. The tincture of Indian hemp is equally efficacious against metrorrhagias in general, and superabundant menstrual fluxes in particular.

Formularies.

FRECKLES, AND HOW TO TREAT THEM.—Many remedial preparations of a more complicated character have been recommended, of which New Remedies gives the following :

℞ Zinci sulpho-carbol..... 2 parts ;
Glycerine ..... 25 "
Aq. rosæ..... 25 "
Spiritus vini rect ..... 5 "

Dissolve and mix. The freckled skin is to be anointed with this twice daily, the ointment being allowed to stay on from one-half to one hour, and then washed off with cold water. Anæmic persons should also take a mild ferruginous tonic. In the sunlight a dark veil should be worn.

A French journal recommends a collodion containing ten per cent. of its weight of sulpho-carbolate of zinc, as giving excellent results. The solutions of corrosive sublimate and other mercurial salts, often used for the purpose, are more or less dangerous, and should be avoided. The following lotion, which contains only a minute proportion of mercury, is harmless and well recommended :

℞ Hydrarg. perchlor ..... gr. v ;
Acid hydrochlor ..... gtt. xxx.
Sacch. alb..... ℥j ;
Spt. vin. rect..... ℥ij ;
Aquæ rosæ ..... ℥ vij.

The following formula is also highly recommended :

℞ Sulpho-carbolate of zinc... 1 part ;
Collodion..... 45 parts ;
Oil of lemon ..... 1 part ;
Absolute alcohol..... 5 parts.

The sulpho-carbolate of zinc should be reduced to an extremely fine powder, and should then be thoroughly incorporated with the fluid mixture.

Here is another, in which white mustard-seed and lemon juice are the chief ingredients :

℞ Pulv. sinapis alb..... ℥ iij ;
Olei amygdal ..... ℥ ss.
Succi limonum, enough to make a thick paste.
Mix. To be applied as an ointment.

It is also said that powdered nitre moistened with water, and applied night and morning, will soon remove all traces of freckles. An old-fashioned household prescription is sour milk or buttermilk, which may sometimes answer the purpose.

THE CANADIAN

Journal of Medical Science,

A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending their addresses to the corresponding editor*

TORONTO, NOVEMBER, 1877.

IMPORTANT.—Accounts have been mailed to all subscribers in arrears. We hope they will be promptly attended to. A reference to the date attached to the address of each journal will at once inform anyone when his subscription became due.

A GROWING NUISANCE.—We have to thank the *American Practitioner* for enlightenment on the please-send-me-a-specimen-copy-of-your-valuable-journal-man. We, too, have never seen the colour of this man's money for a specimen, and never received an order for continuance of the paper. We shall see that no more copies are sent gratis, and we think that if all journals will do likewise and notice the nuisance, it will cease at once.

OBITUARY.—We regret to have to record the death of Dr. Cline, House Surgeon of the Montreal General Hospital. While attending some cases of diphtheria, Dr. Cline contracted the disease, which proved fatal in a few days. The profession in Montreal have lost an esteemed and talented *confrere*.

CORRECTION.—In our October number, in calling attention to the "Physicians' Day-Book, Journal, and Ledger," advertised in another column, we erroneously gave the address of the Henry Bill Publishing Company. It should have been Norwich, Connecticut, U.S.

WM. WARNER & Co.—This celebrated Philadelphia firm of wholesale druggists and manufacturing chemists received the first prize at the International Exhibition of 1876 for their sugar-coated pills, which were certified by the judges as being soluble, reliable, and unsurpassed in the perfection of sugar-coating, thorough composition, and accurate subdivision. They may be relied upon for pure chemical and pharmaceutical preparations. They are specially commended for phosphorus pills. Their advertisement circular will be found in another column.

TORONTO SCHOOL OF MEDICINE.—The annual dinner of the Toronto School of Medicine takes place at the Rossin House, on Friday evening, November 9th. Graduates desiring tickets can obtain them from Mr. Franklin Burt, Secretary of the Dinner Committee. Many ought to be glad to avail themselves of this opportunity of renewing old associations.

We are glad to call attention to the advertisement relating to the transactions of the Canadian Medical Association. The Committee have worked admirably, and we hope will find their reward in a large list of subscribers. The volume will be well worth having.

GEO. H. SCHAFER & Co.—We have used some of the preparations of this firm of manufacturing pharmacists, and are pleased with their effects. Their fluid extract of ergot we can specially commend. Galenical preparations they make a specialty.

WORCESTER'S DICTIONARY.—In our advertising columns Messrs. J. B. Lippincott & Co., of Philadelphia, offer Worcester's Standard Dictionary, unabridged, for the low price of ten dollars. As a standard work of reference its authority is *unimpeachable*.

We desire to call the attention of the profession to the advertisement of Mr. Arnold, surgical instrument maker. His address is 119 Dalhousie Street, Toronto.

BOOKS AND PAMPHLETS RECEIVED.

Outlines of Modern Chemistry,—Organic, based in part upon Riches' Manuel de Chemie. By C. GILBERT WHEELER, Professor of Chemistry in the University of Chicago. N. S. Barnes & Co., New York and Chicago. 1877.

This is a very readable account, in a small space, of the general principles of the chemistry of the organic compounds. The author has not attempted to give us an exhaustive treatise on the subject, but one that will be of practical use to students who have mastered the subjects of inorganic chemistry and chemical physics. The book is well got up in paper, press work and binding.

Physicians' Vade Mecum and Visiting List; arranged and prepared by H. C. WOOD, M.D. Philadelphia: J. B. Lippincott & Co.

This is a new and convenient visiting list, holding much useful information in a small compass. It contains articles on Poisons and their Antidotes, a Posological Table, the Metric System, Diagrams of the motor points of the muscles for those using electricity, &c. We have seen no better visiting list.

Sycosis: Prize Essay for 1877 *of the Bellevue Hospital Medical College Alumni Association.* By A. R. ROBINSON, M.B., L.R.C.P. & S., Edin.

Retarded Dilatation of the Os Uteri in Labour. By ALBERT H. SMITH, M.D., Phila.

APPOINTMENTS.

Horace P. Yeomans, of the Village of Mount Forest, Esquire, M. D., to be an Associate Coroner in and for the County of Wellington.

Thomas Smith Walton, of the Village of Parry Sound, Esquire, M. D., to be an Associate Coroner in and for the District of Parry Sound.

Sclerotic acid, the active principle of ergot, isolated by Dr. Dragendorff, appears in the American prices current at £5 per ounce. It is administered hypodermically in doses of $\frac{1}{16}$th to $\frac{1}{12}$th of a grain.

Miscellaneous.

EMBALMING.—Dr. Lowell, of this city, has devised a process of embalming bodies which bids fair to revolutionize the business of undertaking. If his plan shall be adopted and succeed, the use of the ice-box and other expensive appliances, generally in request for the preservation of cadavers by the agency of cold, will become entirely unnecessary, and will be succeeded by an inexpensive and simple process, which we will briefly indicate as follows: A solution of chloride of zinc is the preservative fluid used; this is contained in a porcelain-lined vessel, which is elevated to a convenient height, so that the contents will be injected into the cadaver after the manner of a gravity-syringe. For the passage of the fluid from its receptacle into a vein of the cadaver, glass and rubber-tubing are all that is required. A finely-tapered glass tube is held tightly in place in the vein, while a glass U-shaped tube acts as a siphon to conduct fluid from the receptacle. The quantity of fluid will, of necessity, vary in different cases; four or five gallons may be required. This plan will not work when operations have been performed whereby large vessels have been opened. A body thus treated was transported from this city to Richmond, Va., this summer, without odour, and without disfigurement or any external signs of decay. All that is required is that the physician shall expose a vessel, adjust the glass tube, and the fluid will find its own way. Dr. Lowell has let the instrument run all night. There is promise in this of a saving to the city of Brooklyn alone of from $75,000 to $100,000 each year in the one item of ice, in addition to doing away with much unpleasant and cumbersome material in caring for the dead. Dr. Lowell writes: "The injection may be made by either artery or vein. I have tried both with success. I prefer the brachial artery above the elbow as the point for introduction of glass tube, for the primary incision is slighter, and, consequently, divides smaller and fewer veins than when I expose the femoral artery. I use the gravity method, and introduce about five gallons of the antiseptic fluid. The effects are eminently satisfactory. The colour of the in-

WARNER & CO'S

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Phosphorus Pills.

Phosphorus is an important constituent of the animal economy, particularly of the brain and nervous system, and is regarded as a valuable remedy for the following diseases:—

Lapse of Memory, Impotency, Softening of the Brain, Loss of Nerve Power, Phthisis, Paralysis and Neuralgia.

☞ THE PILULAR FORM HAS BEEN DEEMED THE MOST DESIRABLE FOR THE ADMINISTRATION OF PHOSPHORUS. It is in a perfect state of subdivision, as it is incorporated with the material while in solution, and is not extinguished by oxidation.

THIS METHOD OF PREPARING PHOSPHORUS HAS BEEN DISCOVERED AND BROUGHT TO PERFECTION BY US, and is thus presented in its elementery state, free from repulsive qualities, which have so long militated against the use of this potent and valuable remedy. This is a matter requiring the notice of the physician, and under all circumstances the administration of Phosphorus should be guarded with the greatest care, and a perfect preparation only used.

Its use in the above-named complaints is supported by no less authority than Prof. Delpech, Prof. Fisher of Berlin, Dr. Eames, (in the *Dublin Journal,*) Dr. Burgess, and Dr. Hammond, of New York. The special treatment indicated in these cases is: 1st. Complete rest of mind, especially abstention from all occupations resembling that upon which the mind has been overworked; 2d. The encouragement of any new hobby or study not in itself painful, which the patient might select; 3d. Tranquillity to the senses, which expressly give in these cases incorrect impressions, putting only those objects before them calculated to soothe the mind; 4th. A very nourishing diet, especially of shell-fish: 5th. *The internal administration of Phosphorus in Pilular form prepared by* WILLIAM R. WARNER & CO.

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VENTRICULUS CALLOSUS GALLINACEUS.

A specific for **VOMITING IN PREGNANCY**, a potent and reliable remedy for the cure of **INDIGESTION, DYSPEPSIA,** and **SICK STOMACH**, caused from debility of that organ. It is superior to the Pepsin Preparations, since it acts with more certainty, and effects cures where they fail. **$1.00 Per Bottle. Sent by mail on receipt of price.**

"A NEW REMEDY, CALLED INGLUVIN."

BY A. F. SHELLY, M. D., of PHILADELPHIA.

"This is obtained from the gizzard of the domestic fowl (chicken) and is a *Specific for Vomiting in Pregnancy.* I have used this remedy for twenty-five years, and it has never failed. It is also the most *powerful* and *reliable remedy* for the *Cure* of *Indigestion, Dyspepsia,* and *Sick Stomach*, caused from debility of that organ. It is useful in all cases where pepsines and pancreatines are used, but with much more certainty of its good results, for it puts all those preparations, in my experience, in the background.

In complicated affections of the Stomach, such as *Inflammation, Gastralgia, Pyrosis,* &c., it may be combined with Subnitrate of Bismuth and opiates; and in Diarrhœa and Cholera Infantum, with astringents, both vegetable and mineral. I have given the article to several prominent physicians, who have used it with the happiest results, among whom I may mention Prof. E. WALLACE, of the Jefferson Medical College; he gives me the result of seventeen cases as follows.—

In Vomiting of Pregnancy, out of nine cases he cured six, and palliated two, and in one case the remedy was not taken according to direction, and therefore had no effect.

He used it in seven cases of Sick Stomach, caused by chronic inflammation of the uterus; cured five, and two remained doubtful. He also used it in a case of very obstinate Sick Stomach, caused by an irreducible hernia, and says this was the only remedy that gave any relief.

We, who have some experience, all know that Vomiting of Pregnancy is a sore affliction, and in some cases almost unendurable, nay, indeed, putting life in jeopardy; but in INGLUVIN we have a remedy which will prove to be a great blessing to mothers, who, as yet, think vomiting must be endured as a natural consequence.

If I am able, by this publication, to induce the medical fraternity to make use of the remedy, I am positive that a great boon will be conferred upon a class of sufferers who claim our sympathy.

The dose is from five to ten grains, hardly ever more than five, except in obstinate cases. For children, from one to five grains. My mode of administering it is in a spoonful of water or tea, or it may be strewn on a piece of bread and covered over with a little butter; it is, however, nearly tasteless. In Dyspepsia and in Vomiting of Pregnancy, I direct it to be taken half an hour or so before each meal. In other affections of the Stomach and Bowels, every two to four hours. I give it uncombined, except in complicated cases, as heretofore mentioned.

The methods by which this principle can be obtained from the viscus are various. When I commenced to employ it, I used it in rather a crude state, by pulverizing the lining membrane of the gizzard; but it requires too much care and precision in the drying and cleansing operation, in order not to destroy its virtues. There is also great inconvenience in obtaining the viscus during the heat of summer and extreme cold of winter, as temperature is one of the main things to be observed, in order to preserve its efficacy, purity and sweetness. Later, finding this mode of preparation unsatisfactory and inconvenient for the above reasons, I consulted with **WM. R. WARNER & CO., 1228 Market Street, Philadelphia,** who have prepared a form, designated INGLUVIN; its purity, and also its good effects, I can vouch for."

—*"The Medical and Surgical Reporter," February 3rd, 1877.*

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PHARMACEUTICAL CHEMISTS,

1228 MARKET STREET, PHILADELPHIA.

NOTE.—CHANGE OF NAME.

"Dr. Shelly, of this city, informs us that owing to the fact that a proprietary remedy has been on the market for some time which bears the name "DIGESTIN," he has adopted the appellation "INGLUVIN" for the preparation from the gizzard of the domestic fowl described in the Medical and Surgical Reporter, February 3d, 1877.

tegument is improved, even at points where hypostasis has been at work. I inspected a cadaver night before last—a lady. The body was in splendid condition—skin white and clear, and all points of discoloration along spine, nates, posterior surface of thighs, neck, etc., etc., clearing up. The patient died of typhoid fever; *post-mortem* discoloration rapidly supervened, and decomposition was rife. All changes were arrested, the skin cleared up, and when I saw the body last its appearance had improved wonderfully. I am constructing an apparatus on an improved plan for the work of injection, and will, in a few days, have it out." Dr. Lowell will shortly be ready to work his new appliance, and offers to inject any body submitted to him by the profession. He thinks this method will give better satisfaction than icing remains, and will certainly be antiseptic. He is ready to use and apply it where the undertaker has hitherto applied ice.—*Proceedings, Brooklyn.*

IMMEDIATE CURE FOR PILES.—The operation is simply this. The piles being well down, they are punctured with the conical pointed end (which I have had made by Messrs. Mayer and Meltzer to fit on to Dr. Paquelin's gas cautery) to their bases, the number of these hot punctures varying with the number and size of the piles, a pile of the size of half a small walnut requiring two or three. A dull-red heat should be used, and the point gently rotated while being extracted, and not pulled out, because if this be done a portion of the eschar will be withdrawn with the instrument, and some hæmmorhage will follow. Should the disease be of old date, some of the piles will be quite hard; these I have pierced to their softer attachment, at the feeding veins of which they were clot-laminated, and even had fibrous varicose transformations. Ulcers and fissures in connection with the hæmorrhoids were touched with the cautery.

If this simple plan be properly followed, there is no hæmorrhage, but should there be slight oozing, a touch of the cautery at once stops it; the piles are then returned, and a half-grain morphia suppository introduced. The bowels are kept confined by a quarter of a grain of morphia daily, by mouth or subcutaneously, for the first two or three days, and on the fourth or fifth day an enema-tube is gently introduced and a warm injection given and followed on the succeeding day by a laxative. The first two, or in some cases three, motions produce pain, but nothing as compared with that the patients suffered before the operation; and at the expiration of a week they are discharged, with such directions as to diet and regimen, that will promote the healthy function of the rectum, and which are known to all professional men.—*Dr. H. A. Reeves, in London Lancet.*

COFFEE AS AN ANTIDOTE TO STRYCHNIA.—Dr. Attilio Lelli having met with a case in which a large dose of strychnia was administered in coffee without fatal consequences, was led to institute some experiments to determine whether it possessed an antitoxic power against this drug. The animals employed were rabbits, and by comparative trials he found that a does of five centigrammes proved fatal in a short space of time; when the same or a larger dose was given in a very strong infusion of coffee, he found that the coffee either acted as a complete antidote in preventing the poisonous effects of the strychnia, or that it materially diminished the violence of its action. The details of the experiments are given in the *Rivista Sperimentale di Freniatria*, edited by Prof. Carlo Livi, of which the first Fasciculus of the third volume has just been issued.—*London Lancet.*

SPORES. — In microscopical examinations, spores may be confounded with fat globules, blood disks, nuclei of epithelium cells, pus globules, etc. The diagnosis can be absolutely determined only by the use of reagents. Spores are unaffected by ether, chloroform and alcohol. These dissolve fat cells and render epithelium transparent. Ammonia makes spores a little more colourless. It dissolves pus, and secretions of eruptive diseases, making a gelatinous mass. Hot solution of potash with alcohol dissolves impetiginous crusts, fat, pus, hair and epithelium. Acids destroy earthy particles.—*Medical and Surgical Reporter.*

Dr. Matthews Duncan.—It is now, we understand, definitely settled that Dr. Matthews Duncan will leave Edinburgh and settle in London, having been elected to the office of Obstetric Physician at St. Bartholomew's Hospital, on the resignation of Dr. Greenhalgh. There is in all circles in Edinburgh a general feeling of regret at losing one who has for long held a leading position in the medical profession there, and whose advice on matters of public business was much sought and highly valued, as being that of a clear-headed, thorough-going, and independent man.

In Anal Fissure.—Trousseau recommended both the tincture and extract of rhatanny in fissure of the anus, a drachm of each in five ounces of water, by enema. In prescribing the remedies glycerine will be found a convenient excipient; as,

℞ Tinct. krameriæ..... ℥j;
Ext. krameriæ ..... ℥j;
Glycerinæ ..... ℥iij. M.

S. A tablespoonful in a tumblerful of water by injection.

Mixture for Migraine (Megrim).—Delioux.

Squeeze the juice of one lemon into a cup of black coffee and drink at once, to allay the hemicrania in its course, or to dissipate it at its inception. Perhaps the citric acid acts in this case by setting free the caffeine, or by forming a salt with it. Revoil had already found that 100 grammes of lemon juice, taken in a single dose, succeeded in relieving megrim.—*L Union Medicale.*

Coated Pills.—Pills have a verbal as well as a material coating. Mr. G. H. Wright, of Southwark, writing in a recent number of the *Pharmaceutical Journal*, gives the following list of popular names for purgative pills, used in his locality: Wake-me-ups, rattlers, eye-openers, scavengers, early risers castor oil pills, excavators, five o'clockers, fly-away jacks, and imperial pills.—*British Medical Journal.*

Dr. Cleland, of Galway, has been appointed to the chair of anatomy in Glasgow University.

Treatment of Gonorrhœal Orchitis by Iodoform Ointment.

Dr. Julian Alvarez, of Palma, gives the following as his conclusions.—1. Iodoform, better than any other agent, eases the pain of orchitis: this result is reached in two hours. 2. Iodoform has a very marked resolvent action, and has the advantage over mercury that it is not apt to salivate. 3. Iodoform notably shortens the duration of orchitis, and hinders the subsequent induration. 4. An ointment of the strength of from fifteen to thirty grains of iodoform to an ounce of lard should be used.—*Le Bordeaux Medical.*

Tincture of Nux Vomica for Vomiting of Pregnancy.—Dr. Q. C. Smith, of Cloverdale, Cal., in the *Pacific Medical and Surgical Journal*, recommends the following:—℞ Tinct. Nucis Vom., Liq. Bismuth, of each half oz. M. Sig. A teaspoonful three or four times a day after each meal. He has also found granulas effervescent citrate of bismuth, pepsin, and strychnia useful.

The Queen has made a donation of £250 to the Red Cross Society's funds for the relief of sick and wounded of both armies in the East.

M. Gueneau de Mussy's method of administering salicylic acid is to dissolve it in a syrup of gum by the aid of ten times its weight of brandy, and adding to it a little lemon juice.

The Anæsthetic Committee appointed at the Manchester meeting of the British Medical Association have commenced their work. An interesting report may be looked for.

Prof. C. A. Wunderlich died at Leipzig, on Sept. 25th, aged 62.

Births, Marriages, and Deaths.

In Montreal, on the 3rd inst., at St. George's church, by the Very Rev. Dean Bond, Kennet W. Blackwell, of Belleville, to Fanny Coates, youngest daughter of R. T. Godfrey, M.D.

On the 16th inst., the wife of Dr. Temple, of a daughter.

In Guelph, on the 9th inst., the wife of Dr. McGregor, of a daughter.

At 25 Bay street north, Hamilton, on the 5th Oct., the wife of Charles F. A. Locke, Esq., M.D., of a daughter.

WATCHES! JEWELLERY!

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50-CENT LOT.

One Gent's Watch Chain, retail price			$1 00
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One Stone-Set Scarf Pin,	"	"	75
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One improved shape Collar Button,	"	"	50
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For 50 cents we will send above six articles post-paid.

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One engraved Miniature Locket for the above.
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One Ladies' Neck Chain and Charm.
One Ladies' Heavy Guard Chain for Watch.
One set Pin and Ear Rings, Amethyst.
One extra fine Miniature Locket.
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One Gent's heavy Watch Chain with Charm.
One pair Pearl Inlaid Sleeve Buttons.
One Lake George Cluster Pin.
One pair (2) heavy band Bracelets.

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One Ladies' Opera Guard Chain.
One Ladies' Neck Chain and Cross.
One beautiful Locket (engraved).
One pair Band Bracelets.
One Gent's Twist Link Vest Chain and Charm.
One pair Onyx Sleeve Buttons.
One set (3) Onyx Shirt Studs.
One new improved Collar Button.
One extra cut Cameo Seal Ring.
One Arizona Solitaire Stud.
One set Amethyst or Topaz Pin and Ear Drops.
One Ladies' Chemise Button.
One Plain Ring, stamped 18 K.

$5.00 LOT.

One Ladies' Opera Chain, with slide and tassel (retail price $5.00.)
One Gent's heavy Watch Chain, with Curb charm (retail price, $5.00).
One Ladies' heavy long Neck Chain.
One elegant Chased Miniature Locket for above.
One set Cameo Medallion Pin and Ear Drops.
One pair (2) heavy Chased Band Bracelets.
One Gent's Solitaire Diamond Stud.
One Gent's Cluster Diamond Pin.
One pair Amethyst or Onyx Sleeve Buttons.
One set (3) Studs to match the above.
One elegant heavy set Cameo Seal Ring.
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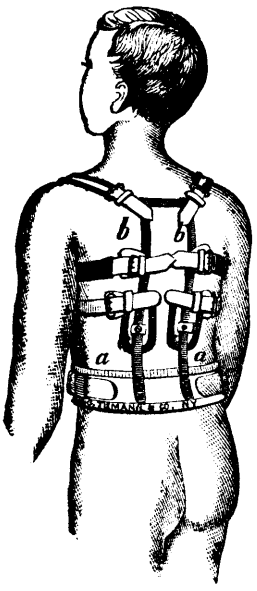

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