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EDITOR

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Progress of Medical Science.

ON EXTERNAL HÆMORRHOIDS.

A CLINICAL LECTURE DELIVERED AT CHARITY HOSPITAL, N. Y.

BY ERSKINE MASON, M.D.

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The affection of the rectum to which I shall call your attention to-day, no doubt is the most frequent disease to which this organ is subject, and one which you will constantly meet in daily practice. I allude to hæmorrhoids, or, as they are commonly spoken of, piles. In clinical lectures such as these it will not be my intention to give you a minute description of these affections in all their phases; but I shall touch slightly on some of these points in order that you may better comprehend the nature of the cases that are presented to you, dwelling, however, chiefly upon the more practical points in reference to their surgical treatment. Before presenting to you these patients who are suffering from hæmorrhoids, I must tell you first that all are agreed in dividing piles into two classes —external and internal—and that these tumors are often very different as to their minute anatomy, as well as location, symptoms and indications with respect to treatment. While following this common division of hæmorrhoidal tumors, you must also know that cases present themselves where it may often be difficult to say to which class they belonged, if indeed they could be placed exclusively in either. I am well aware that some authors have laid down rules for your guidance in this respect; but I fear that in your practice you will find many exceptions, which may be of service perhaps only in proving a rule. While these two varieties are very commonly met with in the same individual, you are often to see them separate and distinct. More frequently you will observe external hæmorrhoids unassociated with internal, than internal without the presence also of external. Indeed it would be a rare case, were it of any duration, to find the internal variety devoid of some external growth.

Now, where are we to look for these different varieties of this affection? External hæmorrhoids are those which are seen just at the verge of the anus, and for the most part form just at the lower border of the sphincter, and project outside the verge of the anus. Internal, those that form above the sphincter, and remain either in this locality, hidden from casual observation; or from various causes they too may project outside the external sphincter. Bear in mind it is the situation in which these tumors first arise, not the locality in which the eye may at first perceive them, that places them under one classification or the other. This being the case, are there any reasons why they should arise just at these situations, and not within that portion of the bowel which is surrounded by the circular muscular band which we call the sphincter? The solution of this question, I think, was given by Mr. Brodie, and is to be found in this fact: the hæmorrhoid veins, which is the part chiefly involved in this affection, run on the inside of the sphincter, and while this muscle preserves its tone, dilatation of these vessels is not permitted. It will be only in old standing cases, I think, that a varicose condition of these vessels will here be found.

Before speaking of the causes that give rise to hæmorrhoids, it is perhaps better to consider the nature of these tumors. Though I shall tell you presently that we classify these growths as to their appearances and pathological tendencies, as well as the locality in which they arise, we may say that no matter whether they be called external or internal hæmorrhoids, they are made up chiefly of a varicose condition of the hæmorrhoidal veins, though sooner or later other elements enter into their formation, such as capilliaries, arteries, products of inflammation and integument, according to the particular kind of tumor which we meet with. And here it may be well to enumerate a few of the appearances these tumors present, and the respective characters of each.

First, as to those which are spoken of as external hæmorrhoids. If you examine the anus of a patient with this form of trouble, as for example in the case of this man before you you will find around the verge of his anus several tumors varying in size from that of a large pea to those of the size of a Lima bean, and in many instances these may be of a much larger growth. Their bases are large, and by separating the sides of the anus, either by the fingers or speculum, you will observe that they run up the sides of the bowel somewhat like pillars. The extent they ascend will vary much in different cases. Some of these tumors are seen to be quite distinct from others, while, again, others merge into one another. The color of these growths is of a bluish appearance at their most dependent portion, a little more of a purple color above, and they may be covered by both mucous membrane and the thin integument which surrounds the anus. This will present to you a fair case of what is known as external piles. In other instances, as with this patient, you will also observe surrounding and hanging from the anus several tags of thickened hypertrophied integument. Some would place these patients in two separate classes of external piles; but I think that this is a useless refinement, regarding, as I do, that these patients exhibit but two stages of what is known as external hæmorrhoids. For let a patient who suffers from varicose external hæmorrhoidal veins neglect himself, then hypertrophies of the integument surrounding the anus will sooner or later be developed. This variety of hæmor-

rhoids which I have just shown you, is what patients will sometimes speak to you of as blind piles, because they are not so liable to bleed as a class, which we will presently consider.

Let us now examine these tumors as to their anatomical nature, and we find this will vary according as they are examined just after their formation or after some interval has elapsed, and they have undergone pathological changes. At first they consist solely of an enlarged varicose hæmorrhoidal vein. After a time, if neglected and they become the seat of frequent inflammation, we will find that lymph has been poured out in the areolar tissue around these veins, and as a result the size of the growth has increased, and the vein may be so compressed as greatly to diminish its calibre, and at times entirely to obliterate it, so you may find nothing but infiltrated tissue and hypertrophied integument, such as you see in the patient before you. Again, these veins may rupture, extravasating blood into the areolar tissue, giving rise to a tumor in which you will find no vein entering into its formation—Merely coagulated blood. This condition if properly cared for, will often disappear by absorption: yet if constantly subjected to irritation, we shall find that as a result these hypertrophies, or tags of integument, which we so often see about the verge of the anus, will likewise be formed.

With this affection, as with all others, we will meet with them in different conditions. When subjected to little or no irritation, patients will often disregard them, they perhaps giving rise to little or no inconvenience. When attacked by inflammation the case will be very different, and the appearance of the parts will be different from those we have described. You will then observe:

The tumors very much swollen, of a reddish hue; the mucous membrane somewhat prolapsed, or rather everted and œdematous, and the parts extremely painful to the touch, and the neighboring organs, such as the uterus and bladder, at fault, through what we term sympathy, and to so great an extent that often these latter organs are regarded as the ones diseased, while the true source of trouble is neglected. How common is this affection, you will soon discover when you commence to practise, if you already are not aware of it. You will examine very few patients who have reached the middle period of life without finding some trace of hæmorrhoids, should you seek for them. Yet in a large portion the affection may be so slight as never to have given any great inconvenience.

Now, what are the causes that will give rise to so frequent a trouble? The list might be made a very numerous one; but it can be condensed into this—anything that will offer an impediment to the venous circulation of the pelvic organs will sooner or later cause hæmorrhoids. Thus you observe it in connection with pregnancy, enlargement of the uterus from any cause, displacements of that organ; affections of the bladder, prostate, or urethra; constipation: the abuse of drastic cathartics, or the irritation of the anus from prolonged riding in the saddle, or the use of improper substances for detergent purposes. A very common cause you will find to be want of proper exercise; hence its frequency in those of sedentary habits, as well as in those whose occupation keeps them standing for many consecutive hours.

The symptoms which announce the presence of external hæmorrhoids are various. It may be only the presence of the tumor which the person detects, or a sense of uneasiness in walking or sitting down; uneasy sensation while defecating; the presence perhaps of a little blood; a sense of weight or bearing down, or perhaps itching about the anus, and this is a symptom which in some patients is most annoying. In some it occurs chiefly after they have retired to bed, while others are often annoyed by it through the day.

In the management of this affection, you will find a great many remedies—so called. In very many of your cases you can relieve, if not entirely cure, your patients, by properly seeking for the exciting cause of the trouble in each individual case, and then subjecting you patient to the proper treatment for that. If it be due, for example to stricture of the urethra, relieve the stricture and the hæmorrhoids will soon cease from troubling. Do not imagine for an instant that every patient who labors from hæmorrhoids must be subjected to an operation before he can be relieved from his trouble. Not at all; though in very many instances I grant you that nothing short of an operation will offer any promise of permanent relief, and in these instances all the remedies that patients apply of their own accord, and which physicians often advise, tend but too often to perpetuate the trouble.

For the treatment of an ordinary case of external piles, when they are not inflamed, a little care on the part of your patient in avoiding those causes which so frequently give rise to them, viz., constipation, the use of stimulating drinks and highly seasoned food, with frequent ablutions, and if it be the first intimation of hæmorrhoidal difficulty, under such a plan of treatment the tumors may altogether disappear.

Under the head of remedies, I should place the free use of cold water, used both externally and as an enema. As an enema I believe you will find it most efficacious when used in the morning, just before the bowels are moved. When constipation is the habit of your patient, you may resort to saline aperients, such as potass bitart, the different preparations of magnesia and sulphur. If you combine several of these remedies in your prescription, and give it in desert spoonfuls in a tumbler of water be

fore breakfast, you will often find that they will act very pleasantly. Indeed with some a glass of cold water, taken the first thing upon rising, will often be all-sufficient to cause a regular movement. Avoid all drastic cathartics, and make your patient abstain from all stimulants, either in food or drink. With some the free use of mineral waters, as Kissingen, Vichy, or Pullna, will be found useful. The confections of senna, sulphur, and black pepper, either separately or in combination, are also useful and agreeable remedies to many. A dessert-spoonful of these is usually given in the morning. Few patients will come to you but have made use of local applications, and these, for the most part will have been astringent ointments, and perhaps the most commonly employed is the gall ointment, with or without the combination of opium. That these are at times serviceable, I do not deny; but that in many instances they are harmful, is equally true. For my part, gentlemen, I am not partial to applying our remedies in this way. It is a dirty mode at the best, and I only resort to it in exceptional cases. Where we have bleeding it may be well to use persulphate of iron in this way, and the strength that is used may be from a scruple to two drachms to the ounce of cerate. So, too, where there is much itching, the red or white precipitate applied around the anus at night may be found serviceable. Where it becomes advisable to resort to topical applications, you may often accomplish your object by the use of lotions, and certainly it will be found both a more cleanly and agreeable method. Among these local applications you will find a solution of tannin, or any mineral astringent, as the sulphate of zinc, either in water or glycerine, serviceable; and you will find equal parts of the liquor plumbi diacet, dil, and the liquor ammonia acet. a useful wash, when acute inflamation is subsiding. When your patient is suffering acutely from inflamed external piles, you may relieve him by the application of a few leeches around the verge of the bowel, by the application of poultices, or in some instances what will be found preferable, the application of ice the ice should be placed either in a bladder or bottle. In this way you may use it without keeping the person or bedclothes wet. Opium and belladonna suppositories may also be required relieve the pain. In these cases you must not neglect to inquire in reference to the bladder, for in many instances this organ may be but partially if at all emptied, your patient's agony being increased by retention, which will require the catheter for its relief. Under this head arises the question, shall we operate while the piles are in an acute state of inflammation? It is somewhat difficult to give you set rules for your guidance in all these cases, as they will be found to differ materially. The older surgeons unhesitatingly forbid operating upon inflamed piles, fearing that pyæmia would result; while more modern writes rather advocate operating at once. Until you have become more familiar with the disease, and are better prepared to discern different shades of this inflamed condition, I think it would be better, if not safer, for you to abstain from operating till after the acute stage has passed. When, however, you find a blue tumor projecting below the verge of the anus, and this is hard and tender to the touch, and for a day or two has given great annoyance, you may incise this, squeeze out a clot, and then apply a piece of lint dipped in some astringent wash, and you will thus at once relieve your patient.

The subject of itching piles deserves more than the mere references which I made to it a moment ago, for it often is one of the most distressing symptoms to which our attention is called. The remedies that have been suggested for its relief are perhaps as numerous as those for the purpose of "curing piles." I have alluded to the white and red precipitates. Citrine ointment, drachm to the ounce, and the use of sulphurous acid diluted with equal parts of water. This latter is an extremely valuable remedy, especially where we find an eczematous condition of the verge of the anus, which is often due to the presence of a parasitic plant; and for the knowledge of its use I am indebted to Dr. Van Buren. Yet in spite of all these applications I have seen many cases where nothing sufficed short of the removal of the hæmorrhoids by surgical means.

In spite of all your medical treatment and care you will often find that nothing short of the removal of these hœmorrhoides will suffice And though you may have carried a patient pleasantly through an attack of inflamed piles, and a long interval elapse without his suffering any inconvenience from hœmorrhoidal tumors, he is almost sure, sooner or later, to have a return of the trouble, and these attacks often will grow more frequent till operative interfence is resorted to. You may move these external growths by various means such as the ligature, actual cautery and scissors; the various modes of applying these you will see me do upon these patients. My preference here is for the ligature and scissors. If the tumor be a large one, you may pass the curved needle, armed with a double ligature, through the base of the tumor, and then you may tie the base of the tumor on either side; if small it will be all sufficient to use a single ligature. On this subject I shall have more to say to you when I come to speak of the treatment of internal piles. Where the tumors are partially surrounded by integuments, be sure to nick this with your scissors and sink your ligature well down into the groove you there make; for if you include integument in your ligature you but cause your patient much unnecessary pain. Those pendulous masses of hypertrophied suik you can best remove with the scissors; the

hemorrhage will not amount to much, and should it become necessary to resort to means for its control, the parts are always accessible. Yet see that it has been checked before you leave your patient. In removal of these growths do not be too free with your scissors and encroach upon the verge of the anus, else as a result you may find, after the parts have healed, you have left your patient in a worse condition condition than before, by giving him a troublesome stricture of the anus. When you operate upon external piles, be sure you examine if the internal form of this trouble does not also exist; for if it does, and you neglect these, your operation will prove of but little avail.—*New York Medical Record*, Aug. 1, 1872.

CHOLERA INFANTUM.

BY HARVEY L. BYRD, M.D.,
Professor of Diseases of Women and Children in the College of Physicians and Surgeons of Baltimore, Md.

This terrible scourge of infancy and childhood is carrying large numbers of the young and tender ones of this community to their long homes, and such is the extent of its ravages that it might be said with propriety of language to prevail at this time as an epidemic in our midst.

Baltimore, hygienically considered, is probably the equal in all, or at least very many, respects to her most favored sister-cities; but, while this is the case, the hand of the destroyer occasionally falls heavily upon her, and she is then called upon to mourn the loss of those she cannot rescue from the embrace of death. Since the event of summer the mortality has been considerable among infants and children one to three and four years old, but it is chiefly within the last three weeks that our mortuary tables exhibit a fearfully large proportion of death from cholera infantum. Within this period there has been not only a steady but an alarming increase in the death-statistics from this generally intractable and fatal malady. After resorting to the remedies most in vogue in the treatment of *summer-complaint*, such as calomel in minute and moderately large doses, alone and in combination with Dover's powder, chalk, charcoal, etc., bismuth, magnesia, pepsin, tannic and gallic acids, acetate of lead, alum, nitrate of silver, creasote, pyroligneous acid, laudanum, etc., etc., alone and in various combinations and mixtures, with indifferent or unsatisfactory results, even when strict attention was given to diet, fresh air, bathing, stimulants when called for, etc., it was finally decided to adopt a plan of treatment with special reference to an alterative action on the blood; at the same time giving strict attention to the skin with a view to the elimination of the poison, as far as might be, by this organ.

Accordingly, with the leading object in view, namely, an appeal to the blood primarily, sulphite of sodium and aromatic sulphuric acid were prescribed internally, and tepid or cold alkaline baths, according to indications, ordered externally, to which whiskey or brandy was added when required.

One grain of the sulphite, with four drops of paregoric, was given in gum-water every two hours, to a child one year old, and the dose doubled for a child two years old, increasing or lessening it according to age and the anodyne effects of the paregoric, thus:

℞ Sulphite of sodium, grs. xvi;
Pulv. g. acac., grs. xii;
Tinct. op. camph., f℥ i;
Water, ℥ ij.—M.

Sig.—One teaspoonful every two hours, to a child one year old, shaking the phial before using. One drop of elixir vitriol in three spoonfuls of iced water was given, three times a day, to a child one year old, and the dose increased one drop for each year and lessened to one-fourth or one-half drop when below one year of age. A tepid or cold bath, rendered alkaline with an ounce or more of carbonate of sodium, potassium, or common salt, was used morning and night. In addition to the foregoing remedies, aromatic cataplasms were ordered, and kept applied over the entire stomach and abdomen. Cow's milk and farinaceous articles of food not to be allowed, and scraped or finely-chopped beef, or lamb, raw or but partially cooked, or essence of beef (to which a small portion of brandy is to be added when required by the feebleness or prostration of the patient), used as much as practicable as nourishment. Wine-whey allowed freely in the second stage of the disease, when it agrees with the patient. Infants were allowed the mother's milk, or that of a healthy wet-nurse, and fifteen to twenty drops of lime-water three or four times a day when the milk disagreed. This plan of treatment has been pursued for the past two weeks, with complete success. In a small proportion of cases, quinine, in appropriate doses, was also administered when a tendency to periodicity was observed.

Several of our confrères have been advised of this plan of treating cholera infantum as it exists in this city, and are satisfied with the results. It is proper to state that all the cases of the disease that have been treated thus far by the writer have been among the well-to-do and better classes of the community. Long experience in the treatment of epidemics of various kinds, particularly those of yellow fever, cholera, cholera infantum, etc., has satisfied your contributor that no single plan of treatment, however successful at one time, can be relied upon in all epidemics of the same kind, nor during the same epidemic in all cases; but he feels, nevertheless, that the demands of humanity and duty to a common profession conspire to prompt this communication to the readers of the *Medical Times*, so that such use of the remedies may be made in their cases as they may think proper or expedient in the future.

The course of treatment above detailed having thus far met the reasonable expectations of all the parties interested, it is devoutly to be hoped that no such modification or important change in the character of the prevailing epidemic may take place during its continuance as may render it less efficacious or successful in the future that it has proven

up to the present. On a subsequent occasion the writer may venture to give publicity to views and opinions he now entertains on the causes and pathology of this indigenous and fearfully destructive enemy of the Caucasian race, as found in the larger cities of this continent.—*Philadelphia Med. Times.*

BALTIMORE, July 9, 1874.

INHALATIONS IN ASTHMA.

R Æetheris sulph., pts. 30;
Acid. benzoic., " 15;
Bals. Peruvian., " 8;

or, according to another formula,

R Æetheris sulph., pts. 2;
Sp. terebinthinæ, " 15;
Acid. benzoic., " 15;
Bals. Peruvian., " 8,

Place the mixture in a vessel having a large opening; the warmth of the hand is sufficient to volatilize the materials, and inhalations may be used four or more times a day as occasion demands.

FOR PAINFUL HEMORRHOIDS.

R Ext. hyoscyam.,
Pulv. saffron. aa ℥ijss;
Plumbi acetat., ℥i;
Glycerole of starch, ℥i.—M.

ULCERATION OF THE NOSE IN SCROFULOUS CHILDREN.

M. Galezinsky is accustomed to treat ulcerations of the cutaneous surface generally in these cases by dusting them with calomel, with appropriate internal treatment. When similar ulcerations form in the nares, he recommends similar applications, or occasionally the following ointment:

R Hydrarg. ox. rub., gr. iv;
Camphoræ pulv., gr. iss;
Axungiæ ℥i.—M.

CHLORAL IN CANCER.

At a recent meeting of the Société Thérapeutique, the efficacy of chloral in cancer was pointed out by Dr. C. Paul, who had used it in the shape of suppositories containing fifteen grains. Introduced into the vagina, they had produced sleep during the whole night, in cases where considerable doses of morphia had no anodyne effect, while the nature of the secretions, and especially their fetor, were favorably midified. Dr. Martineau mentioned a case of recurring cancer of the breast, which had almost reached the thoracic walls and the lung. Pledgets of lint, steeped in a solution of chloral, were introduced. Three days after, the surface had assumed a healthy hue and was granulating kindly, the fetor had vanished, and the hemorrhage stopped. Cancer of the uterus had likewise improved, so far as the plan and fetor were concerned, under similar treatment.—*New York Medical Record.*

SOME POINTS IN THE TREATMENT OF CHILDREN'S DISEASES. (*a*.)

BY J. MILNER FOTHERGILL, M.D., EDIN.,
Member of the Royal College of Physicians of London.

(*a*) Read before the Medical Society of London, March 16, 1874.

We are all familiar with the fact that the treatment of disease in children presents points of difficulty demanding special acquired knowledge for their solution, which knowledge can only be attained by careful observant experience, and by the attentive consideration of numerous cases. Such then being the case, it may not be altogether out of place to review here some points to which the speaker's experience has strongly attracted his attention, and on which, therefore, he has something to say that may fitly open and direct the discussion about to follow and to which this paper is but an introduction.

In the first place we must recognise the fact that the period of life now under discussion is that of growth, when nutrition is active, and tissue development is progressive. In consequence of this rapid growth, a child requires at frequent intervals supplies of easily digestible food, even in health. In disease, when the powers of the system are being tested, this question of feeding assumes a momentous importance. The food must be such that the digestive powers of the child, enfeebled during the actual prevalence of acute affections, can assimilate it. If such assimilation be impracticable, the food, instead of going to the aid of the patient's powers, remains a burden, entailing so much effort for its removal. The administration of so much food, by coaxing or otherwise, is not the equivalent of so much actually digested. The question of how much will probably be actually assimilated must guide us in our line of dietic treatment. When convalescence is once well established, the digestive powers of children are something stupendous.

The nervous system of children is very susceptible, especially to depressant remedies, and in acute and febrile affections the stage when such remedies are desirable is but a brief one, quickly passes into a stage where mineral acids are the safest refrigerants and tonics. Frequently a small quantity of suitable food will lower the temperature, and beneficially affect the febrile condition—a fact which must often have struck close observers.

While we cannot recognise too distinctly the importance of nutrition and support in the treatment of sickness in children, we must not forget the fact that there exists in the minds of mothers and nurses very frequently, if not indeed generally, a strong feeling that nutritive food or drink will increase the inflammation, or add to the fever. Hundreds of children have perished, the victims of this ill-founded apprehension. They have died down from inanition in the too-careful avoidance of the risk of increasing the inflammation. Vain fear! fraught with mischief; it has still to be combated. There is no better test of a medical man's capacity to treat disease than his power to foresee that in one or two

days the forces of the system will be severely tried by the acute affection, and so take his measures accordingly. Especially is this so in that terrible test of the capacity for endurance and of the amount of resistive power in a child—namely, bronchitis. The faculty of foreseeing that in one or two days the vital powers will be strained to the utmost leads to the adoption of timely measures to meet the hour of need. If the supporting measures are delayed till the time of trial is actually present they are too late to be of service. The impending adynamy must be foreseen and provided against in time, just as a sailor avoids a promontory on a lee shore, if the attempt has to be crowned with success. To convince the mother and nurse that failure of the powers is to be apprehended, and so to be provided against, to induce them to see it, and to convert them into willing allies to meet and avert the danger, is perhaps a petty diplomatic triumph enough; but its impression is not easily effaced, and the remembrance of it clings tenaciously if that looming adynamy becomes actually present, and the child rounds the point by a hair's breadth.

Beef-tea, freshly made, milk sheathed by an alkali, and even wine, are often called for in the treatment of acute disease, much oftener and earlier on in the case than many suppose. Especially may wine be advantageously administered when the powers are flagging, and the tendency to sinking is marked. Its skilful use at a critical point often makes all the difference possible in the result.

On this point, however, it may be well to dwell a moment. The present habitual recourse to stimulants has penetrated into the treatment of sick children, and is fraught with evil. The anxious mother gives her ailing child port wine or stout, as indeed she would give it anything that she thought would do it good, and too frequently in liberal quantities. She thinks, indeed, that such agents do her child good; she evokes manifestations of force which she mistakes for evidences of vital energy, and is gratified accordingly. In childhood especially is the system engaged in storing up force, accumulating a fund of body force ever afterwards available for emergencies, and which we can draw upon by stimulants in the hour of need. By a system of alcoholic stimulation the force that ought to be stored up is called out, and a vast portion of the growing capital expended. When disease comes, the reserve fund which should and would have carried the child successfully through the trial, is found wanting; it has been spent in producing valueless manifestations of force, in useless and fictitious appearances of energy, which are not the evidences of superabundance of physiological capital, but are simply loans on the body-bank. Such over-stimulated children yield unresistingly before the approach of severe acute disease; their powers have been undermined, sapped by an erroneous, indeed, vicious system of feeding. The plan is simply pernicious in most cases, and it is a matter for grave question whether the digestive powers of children are ever assisted by the addition of stimulants to their food. On the other hand, in the course of acute disease it is often of the utmost importance to weather a danger-point, and for this end we may advantageously borrow some of the reserve force of the system by a stimulant. Especially can this be done in children who are properly fed and reared, whose powers are of normal tone, and unexhausted by previous stimulation.

An excellent illustration of the good effects of well-directed stimulation is furnished by the following case. Some years ago I was attending a boy of eleven for a low form of enteritis. The remedial measures adopted just succeeded in bringing matters to a standstill; but it was mere arrest. A little wine was ordered on the morning visit, which made all the difference; in the evening matters had taken a favourable turn, and everything was as desirable as could be hoped for, except the tongue was not cleaning. The inclination to give a few grains of calomel was with much difficulty ultimately resisted, and the powder was counter-ordered. Next morning the tongue was nearly clean, there had been two fairly copious motions during the night, and the condition was one of well-marked improvement. Had those few grains of calomel been administered, the results would have been attributed to the calomel, and the effects of the wine would have been mis-interpreted. As it was, the case was suggestive, and accordingly remembered. In pointing the lesson to be learnt, this case is perhaps more instructive than those of more critical states calling for stimulants, but where the effect is not so distinctly and unmistakably apparent.

In feeding sick children there are two points which call for more attention than is usually awarded to them. The first is the condition of acute indigestion in a convalescent child. Many and many a time does a rise of temperature, a return of fever, mark the administration of unsuitable food, or even of perfectly proper food in excess, when the mother and nurse regard it as evidence of cold caught, and charge themselves with some neglect. An emetic and a purgative, the old empirical measures of our forefathers, soon give relief. I strongly recommend those who have much to do with disease in children to be on their guard as to the confounding of a rise of temperature due to indigestion, or rapidly accumulating bile, with the feverishness of a cold, the more so as the diagnosis materially affects the treatment adopted.

Another point is the not uncommon condition of increasing marasmus in a child co-existent with a ravenous appetite. It is common after acute disease. The child eats incessantly, and yet wastes, dwindling visibly away. This matter was brought prominently before my notice in an outbreak of measles which occurred at Leeds during the time of my connection with the public dispensary of that town. When the measles were gone and the convalescence was commenced, the children in many cases ate voraciously and throve in inverse proportion. It soon became obvious that there was much more food consumed than was digested, and that in fact the more the child ate the worse it was actually nourished. In one or two cases, where the

parents could be induced to limit the allowance of food, the children recovered. I happened to casually mention this matter to Mr. Johnstone Corrie, one of the acutest observers of that town, and he told me that he had found it desirable to pursue a like plan. In return, he drew my attention to a similar condition often found in cases of muco-enteritis. Here the vascular and sensitive lining of the intestinal canal reflects the sensation of hunger in an intensified and exaggerated form; the food imperfectly digested is practically valueless for the purposes of nutrition, and the more the child eats the hungrier it grows, and the sooner it sinks from inanition. It is not the amount of food consumed that we have to regard, it is the amount digested and assimilated.

This leads us to the question of diarrhœa in children—a condition often misunderstood and consequently improperly treated. Often it is a leintery—a good old-fashioned word which we can scarcely yet dispense with—that is, a passing through the intestines of food scarcely changed in character by digestion, so slight the latter. This condition is as often the consequence of a radically vicious system of diet as of serious tubercular disease. Milk, administered alone, or with some alkali, Seltzer, Vichy, or lime-water, according to the indications of each case, is often sufficient to institute a better state of matters: if the ailment has become more obdurate from the force of habit, myrrh and bismuth, in powder, night and morning, will be found to form a capital remedial combination.

Much, indeed, of the diarrhœa of childhood is due directly to the effects of improper food, and the annual death-rate from neglect and ignorance in this respect is very serious. I have seen a well-meaning mother feeding her child, when suffering from diarrhœa, upon herring—a plan which, it is needless to say, soon removed the child from the sphere of such dietetic experimentation.

The bowels, rendered irritable and highly susceptible to the presence of undigested food by the inflammatory condition of their mucous lining, pass on as quickly as may be the irritant material. What else, indeed, can they do with it but eject it? Commonly is such natural and beneficial diarrhœa interpreted into disease by an officious mother, and astringents and diarrhœa mixtures poured into the unhappy child until a natural process is arrested, and inflammation, often of a fatal character, is instituted by the food being so locked up in the bowels. A dose of castor-oil under such circumstances is a famous curative agent, especially if it be followed by an altered and improved diet. At other times a diarrhœa with green, spinach-like stools, is the outcome of over-suckling, or of a mother's milk no longer being sufficient for the needs of the child. Such diarrhœa is very common among the children of the poor, and is best treated by proper diet, cod-liver-oil, and an alkaline preparation of iron.

So much for the derangements of the primæ viæ, of such immense importance to the child.

Another matter to which I wish to draw your attention is that of congenital syphilis. There is much unanimity as to the necessity for the administration of mercurials in the treatment of inherited syphilis during the earliest periods of the infant's independent existence, much more unanimity, indeed, than there is about its utility in the treatment of acquired syphilis. But are we entitled to assume that congenital syphilis evaporates, or is cast out by the specific exanthemata of early infantile life? Are not its effects apparent on the permanent teeth, as Mr. Huchinson has pointed out? Congenital syphilis is not a ghoul which hangs round a child's pre-dental existence; it is an inheritance which modifies the organism, for years, certainly. No one for a moment doubts this; and yet how little do we permit such consciousness to direct our actual practice? Struck with the effects of mercury upon the syphilitic rashes of infancy, impressed by the effects induced by syphilis upon the permanent teeth, the synthesis was unavoidable that the syphilitic virus had not lost its power even during the second dentition, and consequently, that anti syphilitic mercurial treatment might yet be indicated. Experience soon justified the hypothesis, and in many chronic conditions, especially anæmic states, the addition of mercurials to the ordinary remedies soon demonstrated the presence of the syphilitic diathetic element by the rapid improvement which followed, and was inaugurated by the change. There can exist no doubt on the mind of any unprejudiced observer but that the presence in the blood of certain matters, called blood-poisons, induces anæmia; whether by breaking down the existing blood, or interfering with blood formation, it is impossible to say. The fact, however, remains. All of us, in the treatment of atonic gout, of malarial neuralgia, of lead-poisoning, add the specifics, potash, quinine, and iodide of potassium to our chalybeates, in the consciousness that they are here true hæmatics, and that they aid in blood formation by striking at the poison which underlies the anæmia. Our common experience has taught us that the chalybeate must be accompanied by the proper specific in order that the desired impression may be made upon anæmia, and our further experience but strengthens the conviction. The addition of a quantity of the liq. hyd. bichlor. to the muriate of iron in conditions of anæmia in the subjects of congenital syphilis is commonly followed by such distinct improvement that the conviction of the connection of the two is simply unavoidable. It has appeared to me that such youthful subjects are more liable to become anæmic than are children not so tainted; neither is it difficult to conceive that it should be so, or even why it should be so, when we remember the tendency for such blood-poisons to affect the blood itself. It would further appear that the force of the poison is variously distributed: at one time a skin eruption manifests its effect upon the cutaneous system; at another time an anæmic state reveals its effect upon the circulatory fluid itself. It may be gravely questioned whether it is desirable that we should continue to limit our specific treatment to the pre-dental period of a child's existence, instead of extending it to the completion

of the second dentition; or even if it be proper to fix any limit other than the necessities and indications for treatment of each individual case.

Finally we are all familiar with the excessive formation of acid, especially uric, in the system of the strumous. The sour perspiration, the acid secretions, especially seen in the destruction of the teeth caused by the acid secretions flowing into the mouth, the acid urine, with its grains of uric acid, all unite to point to a condition where there is either imperfect oxidation or faulty assimilation, often both combined. Older writers, as Brandish, Brodie, and Lugol, found out empirically the value of alkalies in the treatment of the maladies of scrofulous children, and especially the value of potash. The alkaline plan of treatment gave great relief to the symptoms, without, however, exercising any direct influence over the diathesis, as Lugul observes. Its beneficial action we can comprehend from what has just gone before: it neutralises the excessive acidity, whether due to lactic or uric acid, and so relieves the system from the effects of the excessive acidity at least. It is useful not only as a temporary means of relief, but is even indicated in moderate quantities as a permanent addition to the dietary, and as an habitual corrective of the excess of acid formed in the faulty organism. Alkalies may be agreeably added to the ordinary food in the form of alkaline mineral waters, Seltzer, Vichy, or Carlsbad, either with milk or alone, as a beverage, or, in older children, along with vegetable bitters.

In regard to the causation of the excessive formation of acid in the organism, it seems probable that it has its origin mainly in an imperfect oxidation together with a faulty assimilation. We are all familiar with the effects produced in such cases by sending them away to the seaside to breathe the pure air wafted from the surface of the ocean, where the pining child usually quickly improves in health and nutrition. In most cases the improvement in the respired air and the larger supply of free oxygen are followed by the happiest results. Where exercise is forbidden by some local affection of a joint, the child is benefitted by being kept for hours out in the open air every day. Such was the experience of the empirical past. Lugol found that strumous children were always improved in harvest, when they were much out in the open air gleaning; and Baudelocque found that in the Hopital des Enfans Malades, there was always an increase in the amount of strumous ophthalmia when the weather was such as to cause the children to remain indoors. This is in full agreement with the recent observations of Voigt and others as to the storing-up of oxygen in the system, and the important part played by such stored-up oxygen in the maintenance of the integrity and the functional activity of the system. But the imperfect oxidation is only a part of the question. An equally important factor is the imperfect action of the nutritive and assimilative processes; this is very clearly put by Dr. Broadbent, who says: "When, therefore, we examine the excretions for the products of combustion, and thence draw conclusions as to the completeness of the process, it must be remembered that the more or less perfect oxidation may depend upon the more or less perfect antecedent nutrition, and not merely on the supply of oxygen or any immediate influence on destructive metamorphosis. Thus, the uric acid which forms urinary excretion of birds whose habits are active and temperature high, and whose blood is highly oxygenated, cannot arise from insufficient supply of oxygen, but must depend on some peculiarity in their tissues; so also in man uric acid may be the effect of defective nutrition or primary assimilation, and not merely of imperfect metamorphosis or oxidation. The clinical history of the so-called uric acid diathesis supports this view, and shows that the remedy in many cases must be sought not in the promotion of oxidation but in modification of the nutritive processess."

From this view it is impossible to dissent, and it is highly probable that in persons who are strumous much of the food converted by digestion into peptones never becomes tissue nor is utilized for structural purposes; but may be at once partially oxidised and being thus unfitted for the purpose of histogenesis it at once passess onwards in retrograde metamorphosis. It is also possible that there may be a splitting-up of sugar into lactic acid in excess of the oxidising power of the respired air, and that these two combined have much to do with the production of these conditions of excessive acidity which are so common in the strumous. The practical outcome of all this is that in the treatment of the ailments of strumous children it is not only necessary to procure more perfect oxidation, and with it the removal of the excessive amount of acid, or to aid that process by neutralisation of the acid, but also to combine with these procedures measures for the improvement of the nutritive and assimilative processes in order to ensure success: and for this last end tonics, readily digestible food, and especially cod-liver oil, are suitable. The treatment, indeed, to be successful, must be as complex as is the condition with which we have to deal or which we are essaying to remedy.—*Dublin Medical Press.*

THE DIARRHŒA OF CHILDREN.

The following observations by Dr. S. Henry Dessan are contributed to the *Southern Medical Record*:—

In cases of simple diarrhœa occurring in teething children, where there is no fever present, and absence of pain on pressure over the abdomen, where the stools are more frequent, thinner and copious than usual, when the cause is presumed to be nothing more than the highly irritable state of the nervous system, the effect of the transitionary process of teething, and reflecting its action on the alimentary canal, if the gums should be found swollen, red and tender, they would be lanced; but since my term of service at the dispensary, I have never found occasion to lance a gum. I generally, in such cases, administer a sedative, such as the bromide of potassium, in doses of two to four grs. every three hours,

and insist upon careful attention to the diet of the child If an astringent is found necessary, I give

℞ Mist. cretæ, fl ℥ j;
Tr. catechu
Tr. opii camph.. ää gtts. iv:

every three hours. When the patient has acquired a mixed dietary and presents the same symptoms of simple diarrhœa as before mentioned, the cause being due to eating improper food, if seen shortly after the commencement of the attack,

℞ Ol. ricini
Syr. rhei arom, ää fl ℥ ss;
Sodæ bicarb., grs. ij: M

is ordered to be taken every half hour until the bowels have been freely evacuated, and afterwards to be taken twice or three times daily. This mixture is similar to the Chaussier mixture, with the exception of the soda, which is added as an antacid. Stillé, in his work on Materia Medica, remarks of the ol. ricini, that it is peculiarly adapted to the diarrhœas of children, from causes as at present under consideration; because, while it impresses the general system very slightly, it has a sensitive influence upon the bowels themselves.

In cases of simple diarrhœa occurring in children who have completed the first dentition, where there appears to be a lack of tone in the digestive organs, and where the stools present the condition of lientery, a tonic of quiniæ sulph. and tr. ferri chlorid. is given, together with eight to ten grs. of pepsin, taken with the food at meal time. Pepsin is also given in those cases of simple diarrhœa, in growing children, where the stools are large, watery, frothy and of fetid odor.

Where simple diarrhœa is met with in strumous children, I administer the following:—

℞ Ol. morrhuæ ℥ iij
Syr. prun. virg..
Liq. calcis, ää ℥ i M

S. One or two teaspoonfulls after each meal.

The lime water acts as an emulsifier, and the wild cherry renders the oil more tolerant to the stomach, and at the same time serves to disguise its taste. I have always found the oil to be easily digested after continuing its use for several days, and the looseness of the bowels to gradually disappear without further treatment. When change of temperature, commonly termed cold, is the cause of the diarrhœa, by some writers styled *intestinal catarrh*,

℞ Tr. opii camph.. gtts. iv;
Ext. ipecac. fl. gtts. ¼ M

given in a teaspoonful of equal parts of syrup and water, is prescribed for infants, and larger doses for older children. The castor oil mixture answers fully as well in such cases, and is more frequently given than the first-mentioned combination.

I now come to the consideration and treatment of that variety of the Intestinal Disorders of Children that is by far the most frequently met with by the profession, in any portion of this country. It is the *summer complaint*, by some confounded with cholera infantum, but which I, following the able distinction made by our American authorities, Meigs and Pepper, will term entero-colitis, or inflammatory diarrhœa of children.

When this form of diarrhœa presents itself to my notice, appearing in a child undergoing dentition, where the evacuations are frequent and present the familiar green or chopped-spinach appearance (which, according to such high authority as Chambers, is due to nothing more nor less than blood which has undergone transformation), and also containing mucus and undigested curd, all more or less certain indications of inflammatory destruction: and when, moreover, during the first days of the complaint, it is attended with marked fever and tenderness upon pressure over the abdomen, and more especially in the region of the iliac fossæ, I at once place the little sufferer upon a genuine antiphlogistic treatment, consisting of

℞ Liq. ammon. acet., or
Liq. potass. cit., gtts. xx;
Tr. opii. camph.. gtts. iv.-x;
Ext. ipecac, fl. gtts. ¼-½.

given in a teaspoonful of anisette water. I order the diet to be carefully regulated, the breast to be given not oftener than every three hours, and if there be much vomiting, teaspoonful doses of toast water, containing ice to be given. In cases where vomiting appears as the principal symptom, I am in the habit of giving the following:

℞ Hydrarg. chlor. mit., gr. j;
Sacch. albæ, gr. xv. M

Et in chart No xvj. div. One to be given every two hours.

When the disease has progressed for several days, until the febrile symptoms have subsided, or where such changes appear in the evacuations, as before remarked, following a previous simple diarrhœa, I employ the following powder:—

℞ Pulv. rhei, gr. vj;
Pulv. ipecac. co., grs. x:
Sodæ bicarb., grs. xij M

Et in chart No. xij. div. One to be given every three hours to a child under one year of age.

I also sometimes use the following, for the same age:—

℞ Vin. ipecac. gtts. ij;
Tr. calombæ. gtts. xx;
Mist. saline, aad ℥ ij. M

To be given every three hours.

The mist. saline is made by adding lemon juice in sufficient quantity to neutralize twenty grains of carbonate potassa dissolved in fl. ℥ i. water. (The composition of the prescription is due to Pavy.) In addition to drugs and attention to diet, I generally recommend a hot bath to be given twice daily, and the baby to be wrapped in a blanket, after being dried, so as to invite free perspiration. Plenty of fresh air is advised, which is especially necessary in a large city like New York.

When this variety of diarrhœa presents itself in

children over a year old, and in those under that age also where there are streaks of unaltered blood in the stools, I use the following :—

R.	Bismuth subnit.,	℥ j.	
	Pulv. ipecac. co.,	gr. xx.	
	Pulv. zinzib.,	grs. iiij.	M

Et in chart No. xij. dir. One to be given every three or four hours.

The bismuth also serves to quiet the stomach where there is much irritability present. When the stools contain undigested matter, I give, in addition to the above, eight to ten grains of pepsin three times daily.

Where the disease has lasted for several months, and has assumed all the features of a chronic diarrhœa, whether the patient has completed dentition or not, I give the cod liver oil mixture before mentioned, in the proportion of fl. ℥ iiij ss. to fl. ℥ ss. of the syrup ferri iodid., a teaspoonful of which is to be given three times daily. It acts in the same beautiful and pleasing manner as in the simple diarrhœa of strumous children. Indeed, there is an analogy between the two affections, as in both the mesenteric glands are enlarged, and these, no doubt, are important factors in the chronicity of the disease. I have sometimes advised the raw beef diet to be used in chronic diarrhœa, but it has been more from wishing to vary my practice than from any want of confidence in the cod liver oil and syrup of the iodide of iron.

INFANT DIET.

By A. Jacobi, M.D., Clinical Professor of Diseases of Children, College of Physicians and Surgeons, New York.

Of the Nursing Infant : "But a much more frequent occurrence (than the increase in the normal percentage of salts) is too large a percentage of casein in mothers' milk. * * Casein will be curdled in hard masses, or will pass into the intestines in the same condition, and be evacuated almost unchanged, or covered, perhaps, with bile, a little viscid mucus, sometimes, even, with a streak of blood. * * The indications are either preventive or curative. The increase of casein is frequently accompanied by a diminution of sugar, and the neutrality may be replaced by a faint acidity; and the effect is constipation. * * I remove it (the constipation) in many instances, by simply adding a moderate amount of sugar to the normal food. * * One or two scruples of loaf-sugar are dissolved in one or two teaspoonfuls or more of tepid water, and given to the baby just before nursing. * * The next indication is, to prevent the too sudden effect of the gastric juice upon the surplus casein, and keep it from coagulating in hard masses. * * Instead of the sugar-water mentioned above, I give the baby each time before it is put to the breast, a tablespoonful or more, according to age, of strained and well-sweetened oatmeal, for reasons, and prepared in a manner, I shall designate hereafter. * * For this plan, also, which has been serviceable in many cases where the former simple one would not suffice. I claim good theoretical reasons, and the result of various, and, I believe, unbiased observation of a long number of years. * * The third indication is curative, and refers to the correction of the excess of acid of any origin that may exist in the digestive organs. * * The main concomitant symptoms of acidity are either constipation or diarrhœa, the principal alkalis in question, preparations of potassa, soda, lime or magnesia. * * Wherever neutralization is required in a case of constipation, we should resort to magnesia, soda, or potassa; whenever we have to deal with a diarrhœa, carbonate of magnesia would be indicated. Whenever no decided indication was to be followed, we might select either of soda or potassa, the bicarbonate or the carbonate: the latter, however, when given in large doses, is too poorous and less digestible than the former." (pp. 11-14.)

"*Artificial feeding* Cannot be successful without milk. * * * Where the choice is given, therefore, cow's milk ought to be preferred. * * There is in cow's milk less sugar, less of free alkali, less butter, but more and more coagulable, casein. * * Practically, when a relative deficiency of sugar in cow's milk is to be supplied, loaf sugar always answers the purpose. * * It is advisable to add an alkaline salt, (the carbonate or bicarbonate of potassa or soda) to the cow's milk, and best at once when the milk is put aside for the infant's use. * * Thus I add one or two grains of either of the salts to every meal of the new-born, besides a small quantity of common salt—chloride of sodium—and a larger dose in proportion to age. * * Cow's milk ought to be cooked at once, in order to keep it as long as possible from turning sour, and ought to be preserved in a cool place, if not in an ice-box. * * Next in order is the question how to prevent the great coagulability of the casein of cow's milk; I add, instead of water, a substance, which, by its physical consistency and cohesion, is apt to hold milk in suspension. Thus I mix, say, quite thin and transparent mucilage with (boiled and skimmed) milk, and add the desirable quantity of sugar and salt, or soda. * * Looking for a substance which, while fulfilling that object, is absolutely indifferent, from a chemical and physiological point of view, it is gum arabic. * * An indifferent substance of this sort may be all that is desired for very young infants; * * The selection of articles of food, which are, at the same time, of a mucilaginous consistency, and nutrient, is perhaps, not so difficult as it appears to be. * * Barley and oat meal are the two substances that I mostly employ. * * A teaspoonful of either is boiled in from three to six ounces of water with some salt [a pinch] for twelve to fifteen minutes, the decoction to be quite thin for very young infants, thicker for later months, and then strained through a linen cloth. Infants of four to six months are to have equal parts of this decoction, which ought to be made fresh for every meal; and (boiled and skimmed) cow's milk and sugar is to be added. * * The desire of parents to procure the milk of one special cow for their infants, I believe to be based upon a mistake. * * I have always

advised the plan of giving the average milk of a farm, and have never been sorry for the results, in all parts of the city." (pp. 14-31.)

GENERAL RULES.

1. *About Nursing Babies.*—"Overfeeding does more harm than anything else. Nurse a baby of a month or two every two or three hours.

"Nurse a baby of six months and over, five times in twenty-four hours, and no more. When a baby gets thirsty in the meantime, give it a drink of water. *No sugar.* In hot weather (but in the hottest days only), mix a few drops of whiskey with either water or food, the whiskey not to exceed a teaspoonful in twenty-four hours.

2. *About Feeding Babies.*—"Boil a teaspoonful of powdered barley (grind it in a coffee grinder) and a gill of water, with a little [a pinch] salt, for fifteen minutes, strain it, and mix with it half as much boiled milk, and a lump of white (loaf) sugar. Give it luke-warm through a nursing bottle.

"Keep bottle and mouth-piece in a bowl of water when not in use.

"Babies of five or six months: half barley water and half boiled milk, with salt and white sugar. Older babies, more milk in proportion.

"When babies are very costive, use oatmeal instead of barley. [Add from three to six grains of bicarbonate of soda to each evening meal, for a few nights.] Cook and strain.

"When your breast-milk is half enough, change off between breast milk and food.

"In hot summer weather, try the food with a small strip of blue litmus paper. If the blue paper turns red, either make a fresh mess, or add a small pinch of baking-soda to the food.

"Babies often or twelve months may have a crust of bread and a piece of rare beef to suck.

"No child under two years ought to eat at your table. Give no candies; in fact, nothing that is not contained in these rules, without the doctor's order.

About Summer Complaint.—"It comes from over-feeding, and hot and foul air; never from teething. Keep doors and windows open. Wash your children with cool water at least twice a day, and oftener in the very hot season.

"When babies vomit and purge, give nothing to eat or drink for four or six hours, but all the fresh air you can. After that time you give a few drops of whiskey in a teaspoonful of ice-water every ten minutes, but not more until the doctor comes. When there is vomiting and purging, give no milk.

"Give no laudanum, no paregoric, no soothing syrup, no teas."

A GUIDE TO THE EXAMINATION OF URINE.

[Continued from our last.]

PUS.

Pus is frequently present in the urine, and produces a thick sediment at the bottom of the urine glass. The urine readily becomes alkaline, and rapidly decomposes after being passed. It is permanently turbid; that is, the turbidity is unaffected by heat.

Under the microscope, the deposit shows numerous pus corpuscles, round colourless bodies, not varying much in size, having granular contents, and nuclei varying from 1 to 4 in number; if acted on by acetic acid, the nuclei become much more distinct. If the urine has been long passed, the pus corpuscles undergo changes which render them incapable of being recognised.

The urine of course contains albumen, and in proportion to the amount of pus present. If the quantity of albumen exceed that which should be given by the pus present in the urine, evidence of kidney disease, as casts of tubes, should at once be looked for.

The deposit from urine containing pus is rendered viscid and gelatinous by the addition of about half its quantity of liquor potassæ; it becomes ropy and cannot be dropped from one vessel to the other; urine containing mucus, on the other hand, becomes more fluid and limpid by the addition of caustic alkali.

Pus occurs in the urine in the following diseases:

Leucorrhœa in the female.

Gonorrhœa or Gleet in the male.

Pyelitis, from any cause.

Cystitis.

Any abscess bursting into any part of the urinary tract.

Leucorrhœa is an exceedingly frequent cause of the presence of a slight amount of albumen in the urine of women; if it be necessary to exclude this origin, the urine must be obtained by means of the catheter.

BLOOD.

Blood is not at all unfrequently found in the urine, and it may be derived from any part of the urinary-renal tract. If derived from the kidneys, the blood will be completley diffused through the urine, and give it a peculiar smoky appearance, absolutely diagnostic. If the hæmorrhage from the kidney be great, however, the urine will have a bright red colour, like blood.

The deposit at the bottom of the urine glass shows under the micro-cope the circular discs, familiar to every one as the red corpuscles of the blood. Their peculiar colour will prevent the student mistaking them for any other deposit; they may, however, in a urine of low specific gravity, become swollen, and at last burst from endosmosis; in those of high specific gravity, they will often become contracted, shrivelled, and distorted, from exosmosis.

The urine will, of course, contain albumen in proportion to the quantity of blood present, which may be so great that the urine will solidify on the application of heat. The urine very readily becomes alkaline, and care must be taken to restore the acid reaction with acetic acid, before testing for albumen.

Clinical Import. The presence of blood, or of blood corpuscles, in the urine is a sure sign of the

existence of hæmorrhage fyom the kidney or the urinary passages. It may result from

A. *Disease of the Kidney.*
Acute Bright's Disease.
Congestion of Kidney.
Cancer of Kidney.
External Injury.
Tubercle (*very rare.*)

B. *Disease of Pelvis and Ureter.*
Calculus in Pelvis and Ureter.
Parasite, as Bilharzia hæmotobia.
Cancer.
Tubercle (*very rare.*)

C. *Disease of the Bladder.*
Calculus.
Cancerous or Villous Growths.
Congestion of Mucous Membrane.

D. *Disease of Urethra.*
Congestion, as in Gonorrhœa.
Tearing of the Mucous Membrane from Mechanical Injury.

E. *Constitutional.*
Purpura and Scurvy.
Hæmorrhaphilia.
The Acute Specific Diseases, (*rarely, in malignant cases.*)

F. In female, Uterine Discharges, as menstruation, &c.

As a general rule, if the blood be completely mixed with the urine, the hæmorrhage is from the kidneys ; if the urine first passed be clear, and that at the end of micturition become bloody, or if even pure blood be passed, the hæmorrhage is from the bladder or prostate ; while if the first portion of the urine be bloody, and the last drops clear, the hæmorrhage is from the urethra.

MUCUS AND EPITHELIUM.

Mucus is a constant constituent of every urine, and if healthy urine be allowed to remain at rest for an hour, a light cloud will be found to have settled at the bottom of the urine glass ; on microscopical examination, it will be found to consist of mucous corpuscles, and epithelium scales detached from the surfaces over the urine has passed.

The Urethra and bladder give up a roundish or oval epithelium cell to the urine. In the urine of the female, especially in cases of leucorrhœa, the epithelium cells of the vagina are very numerous, and they exactly resemble the squamous epithelium of the mouth. Under irritation, the mucous membrane of the pelvis and ureter will produce cells, caudate, spindle-shaped, and irregular, exactly similar to those formerly regarded as diagnostic of cancer. From this circumstence it is impossible to speak positively of the existence of cancer cells in the urine.

Desquamation of the tubular epithelium of the kidney occurs only in disease ; the cells, as seen in the urine, are slightly swollen, and acquire a more spheroidal, and less distinctly polygonal, shape, apparently from the imbibition of fluid, and the renoval of pressure. The cells are frequently granular, and contain fat drops, or are contracted, withered up, and shrivelled.

Clinical Import. See Section on Renal Casts.

RENAL CASTS.

In Bright's disease, and in congestion of the kidney, there are formed in the uriniferous tubules, lengthened cylinders which are discharged with the urine, and form the deposit known as " casts." Those found in the urine are probably chiefly formed in the straight uriniferous tubes ; and the view of their origin which has found most favour in this country, is that the casts are formed by the escape of blood into the tubes of the kidney, and coagulation of the fibrin, which thus becomes moulded to the shape of the tube into which it has been extravasated. It is probable that many of the hyaline casts are formed in this way ; but the balance of evidence at the present day is in favour of the epithelial and granular casts being produced by a desquamation and degeneration of the renal epithelium.

When the urine contains casts in great quantity, they can scarcely be overlooked, if the urine be allowed to settle for a few hours in a tall cylindrical glass, the whole of the supernatant fluid poured off, and the last drops which flow from the lip of the glass put under the microscope and examined. If there are but a few casts present, other plans may be adopted ; the urine may be acidulated with a little acetic acid, and thus the uric acid precipitated, with which the casts will be carried down as well ; or the urine may be filtered, and the casts searched for on the filter paper ; or if the specific gravity be high, the urine may be diluted with distilled water, set aside for an hour, and the deposit then examined. With a little experience, the student will soon become familiar with the appearance of casts, and will at once be able to distinguish them from foreign bodies in the urine. They are never broader than 6, or less than 2, red blood corpuscles in diameter ; but they vary considerably in length, never, however, exceeding the $\frac{1}{30}$th of an inch. The same cast does not vary greatly in its diameter, and never becomes twisted on itself, as a cotton fibre does.

The foreign bodies, most liable to be mistaken for renal casts, are cotton fibres, hair, and pieces of deal.

Cotton fibres have a very irregular outline, and are much broader at one part than at another ; they are often twisted, and of great length, which will distinguish them from casts. Their structure is often striped in a longitudinal direction.

Hair can often be distinguished from renal casts by its colour alone ; and if this be not very apparent, by its possessing a cortical and medullary structure ; and by its length being greater than that of any cast.

Fibres of Deal, which have their origin in the furniture, &c., of the apartment, may perhaps be mistaken for renal casts. They are at once recognised

by the presence of the large round wood-cells which characterise the order Coniferæ.

Casts may be conveniently divided, according to their appearance under the microscope, into three kinds, the epithelial cast, the granular cast, and the hyaline cast.

The epithelial cast. This cylinder consists of a mass of epithelial cells derived from the tubules of the kidney; the cells may become granular and acquire a dark appearance by transmitted light. The cast is usually wide, never very narrow.

The granular cast. This is a solid cylinder having a granular appearance, which may be limited to a few dark points in the substance of the cast, or be so intense as to give the cast an almost black appearance. In this kind of cast may often be found epithelial cells, blood corpuscles, red or white, pus corpuscles, crystals of uric acid, urates, and especially oxalate of lime. The fatty cast is a variety of the granular, produced by the running together into globules of fat of the granules of olein.

The hyaline cast. This cast is usually very transparent, and the outline is often so indistinct that a little iodine or magenta must be added to the urine before it can be detected, or a diaphragm with a narrow opening must be used. They show indistinct markings on their surface, or a few granules and nuclei. There are two kinds, the wide and the narrow; the latter are sometimes of great length.

In observing casts, notice must be taken of the action of acids upon them, or their contents. It is thought that when the cylinders resist the solvent action of hydrochloric acid to any great degree, that the inflammation of the kidney is correspondingly intense. The granules on the cast, if formed of protein, will disappear, when acted on by acetic acid: but if of olein, they are rendered more distinct. The width of the cylinder is of some importance, as it is supposed that very broad casts are formed in tubules completely stripped of their epithelium, and that the prognosis is more grave when these wide casts show on their sides no nuclei, or attempt at reformation of epithelium. From the recent observations on the varying diameters of the uriniferous tubes, the importance of the breadth of the cast becomes less.

Clinical Import. The presence of casts in the urine is a sure sign of disease of the kidney, but not, however, necessarily of *permanent* disease of the kidney. They are present in many acute diseases, accompanied by albumen in the urine. But if they are found for several weeks together, after all pyrexia has subsided, permanent disease of the kidney may be inferred. Casts are constantly present in the urine in all cases of congestion of the kidney, and of acute or chronic Bright's disease. But no certain information as to the nature of the disease existing in the kidney, *e. g.* whether lardaceous or fatty, can be obtained from the character of the casts, since all forms of Bright's disease terminate in fatty changes. Some assistance may, however, be derived from the appearance of the casts in forming a judgment of the acute or chronic character, or a prognosis, of the disease. If, for example, there be found in the urine epithelial casts which have undergone little, or no, granular change, and casts studded with red blood corpuscles, together with a large quantity of epithelium from the tubules of the kidney, having a natural or only slightly cloudy appearance, there can be little doubt that the patient is suffering from an acute attack of Bright's disease: while if the casts be chiefly fatty, or intensely granular, and the epithelium be small in amount, and the cells withered and contracted, or containing globules of olein, it will be more than probable that the case is one of chronic Bright's disease.

Since little reliance can be placed on the characters of the casts as an aid to special diagnosis, some of the leading characters of the renal derivatives in the chief forms of kidney affection have been subjoined.

Congestion of the kidney. The casts are chiefly hyaline, seldom showing any marks of fatty change. Very rarely are blood or epithelial casts discovered.

Acute Bright's Disease. At the commencement, the urine deposits a sediment which consists of blood-corpuscles, narrow hyaline casts, and casts covered with blood-corpuscles, the 'bloodcasts' of some authors. In the next stage, the amount of blood present is not so great, but, a great desquamation of the renal tubules taking place, renal epithelium and epithelial casts are found in great numbers; the epithelium has undergone very little, if any, granular change: hyaline casts are observed together with epithelial. In the next stage, the changes in the epithelium may be almost daily observed; at first they become granular, cloudy in appearance, which alteration, the sequel of the catarrh, often proceeds to fatty degeneration, and the epithelial cells then contain large fat drops, while the epithelial casts undergo similar change, and become distinctly granular and even fatty.

If the patient recover, the casts and epithelium gradually disappear from the urine, but if the case become chronic, the renal derivatives show the characters described in the next paragraph.

Chronic Bright's Disease. Numerous forms of casts are met with; the hyaline, both narrow and wide forms; the larger are often beset with granules dissolved on addition of acetic acid; the granular, whose surface is often covered with fatty or shrivelled-up epithelium cells; fat drops may stud the cylinder. Epithelial casts are rare, except in febrile exacerbations, when the renal derivatives found in acute Bright's disease are present, together with granular and fatty casts, evidence of the previous alteration of the kidney.

Lardaceous or Albuminoid Kidney. The urinary deposit contains hyaline casts, which are often accompanied by pus corpuscles. Atrophied epithelial cells, becoming fatty in the later stages of the disease, are almost invariably present.

FUNGI.

Many kinds of fungi grow in the urine after it has been voided for some time, and when the ammoniacal decomposition has begun are (*a*) *vibriones*, which may be seen in almost every albuminous urine which

has been passed a little time; they are known by their linear form and incessant motion; (*b*) the *penicillium glaucum*, the fungus which forms 'mildew,' and which often appears when the acid fermentation has begun; (*c*) the yeast fungus, *torula cerevisiæ*, which was considered by Dr. Hassall to be diagnostic of diabetes.

Sarcinæ are apparently formed in the urine before it is voided: they are square bodies, divided into secondary squares, which number 4, 16, 64, &c., and are similar to the sarcinæ found in the vomited matters of persons suffering from stenosis of the pylorus.

Kiestein is a whitish pellicle formed on the surface of the urine of pregnant women, when allowed to remain at rest for a few days. It appears to consist chiefly of the mould fungus, globules of fat, and crystals of phosphates. It was formerly regarded as a sign of pregnancy; but it occurs in the urine of persons who are not pregnant, and it is not always present in pregnancy.

SPERMATOZOA.

These little bodies are present in the urine of males first passed after an emission of semen. A few pass away in the urine, probably, without venereal excitement, especially when the person is continent. In the urine of females, they are almost positive proof of sexual intercourse.

The seminal secretion forms a glairy white deposit at the bottom of the urine glass. When examined with the microscope, (for which a high power, magnifying 400 or 500 diameters, is best, although a power of 250 will identify them), spermatozoa show the characteristic oval head or body, often somewhat pear-shaped, and long delicate tail, two or three times the length of the head.

In the urine no movement is ever shewn by these bodies.—*Flint on the Urine.*

DIET AND THE DIGESTIBILITY OF FOOD.

(Continued.)

From the Medical and Surgical Guide.

Puddings.—Pastry ought to be light, well cooked, but not what is called rich or greasy. Hard dumplings lie like a stone on the stomach of most people. Beef steak puddings and meat pies ought never to be taken by those having weak digestion.

Little fancy cakes eat much shorter if put while hot into a hot jar instead of being allowed to cool according to the usual custom.

Cakes, puddings, &c., are much better if the currants, sugar, and flour used are made hot before being mixed together.

Oatmeal.—Oats are best when grown in a cold climate, and they seem to agree with the inhabitants as a substantial article of diet. Oatmeal is chiefly valuable in the form of gruel, as it soothes the stomach, is nutritive, and easy of digestion. A little oatmeal mixed with water is an excellent drink when abstemiousness is necessary. As a light supper, nothing is more fitting than gruel for the delicate. In inflammatory affections, when proper to change from toast and water, nearly half a cupful of gruel may be given every two or three hours. But there are some persons with whom oatmeal never agrees. Gruel for the sick ought always to be boiled one hour. When it will sit comfortably on the stomach of a child, oatmeal gradually stirred into boiling water, and eaten with milk, forms an excellent breakfast, not so liable to produce costiveness as bread and milk.

Barley.—Bread made of the meal of barley is not easily digested, but, from its flavour, is liked by those accustomed to it. Pearl barley is a great addition in the concoction of broth; and as barley-water will often suit where oatmeal gruel disagrees, mixed with milk it is an excellent diet for the sick. It should always be made fresh, and boiled three hours.

Rye Bread acts as a lazative; but the disease to which this grain is subject will sometimes render the whole population where it is used dangerously ill, and be productive of most afflicting diseases.

Rice, from its large proportion of starch, is most excellent for the sick and those of defective digestion; it forms an excellent substitute for vegetables when found productive of flatulency; its tastelessness renders it easily flavoured and palatable. It ought to be well cooked, the grain much swelled, but not broken; by not stirring it in the process of boiling it does not, what the cooks call, "set on." Ground rice is more readily cooked than when whole. It is a good and economical food for families.

Maize requires a taste to be acquired for it, and then it is preferred to wheaten bread. Mixed with wheaten flour, or as puddings or porridge, it is, as regards digestion, about the same as ordinary flour.

Pea Meal is very nutritious, but often indigestible; from the flavour it gives to soup, it is highly relished, and especially used for that purpose on board ship; it is also said to act most beneficially with sailors as a preventive to scurvy. In the north it is often made into bread, although the bread made from it is heavy and not easily digested.

Asparagus is prescribed in Spain as a powerful diuretic. The less fibrous vegetables are, the more easily they are digested, yet they contain but very slight proportion of nutritious principle; in this class there may be named artichoke, sea-kale, vegetable marrow, celery, the flower of the cauliflower, and young French or kidney beans. Vegetables ought to be thoroughly cooked, and the water in which they have been boiled well drained from them before use. French and kidney beans, when old, contain a great deal of nourishment, and are a good substitute for more flatulent vegetables. Sea-kale and asparagus were at one time insignificant marine plants. The wild briar is the parent of the rose; the sloe, of plums, peaches, apricots, and nectarines; the crab, of apples of all kinds; the corn, the improvement of grass.

Potatoes.—The best potatoes do not contain a fourth of the nutritive matter of wheaten flour. They are chiefly valuable to dilute food that con-

tains a large proportion of albuminous matter. If man were to feed exclusively on animal food, a vast train of evils would arise; and therefore, by partaking of it moderately, while he supplies the stomach with a sufficiency for the exercise of its functions, by some such article of diet as potatoes he keeps up a proper balance, tending to a healthy state of body. Potatoes ought always to be fully ripe and well cooked, and not eaten with a "hard heart." The manner of cookery, as to boiled, roasted, or baked, is of no importance. It is said, if boiled with their "jackets" on they are more nourishing, but, if peeled before boiling, more easily digested.

Spinach, when tender and fresh, is easily digested It acts as a stimulant to the stomach and bowels, and is gently laxative in many instances.

Turnips ought to be young, otherwise they are apt to be slow of digestion, and annoy the digestive powers.

Cabbages and Greens, if young and quite fresh, are wholesome, but if even a day old they frequently ferment and produce wind and acidity during digestion, which occupies some time. The less fibrous they are the better.

Carrots and Parsnips are nutritious, but rather difficult of digestion with some persons.

Green Peas are best when young. When old they are highly nutritious, but do not agree with those who have bad digestion.

Broad and Windsor Beans ought only to be eaten by those who have out-door exercise.

Dried Peas and Beans are very nutritive, but slow of digestion.

Watercress and Garden Mustard stimulates the stomach and promotes appetite.

Lettuce, if found easy of digestion, with a little salt, is suitable to the stomach, and may be eaten as in the north, with sugar and vinegar, or as dressed on the continent, with vinegar, mustard, and oil. It is best when young and quickly grown, as its narcotic principle is not so great as when old, and its fibres being tender, digestion is more easy.

Celery ought to be eaten when young and tender, and is more easily digested when boiled.

Radishes are only good when young and scraped.

Leeks and Onions do not agree with weak stomachs; they are valuable in cold and humid atmospheres, and where the diet is meagre, as on the Continent, and among labourers whose wages do not afford a nourishing diet. They are conducive to health. A little parsley takes off the disagreeable odour of the breath arising from their being eaten.

Cucumbers.—Persons having a bad digestion ought never to eat this watery and cooling vegetable. Vinegar and salt and pepper are condiments that should always be used with it.

The French convert vegetables of all kinds into wholesome and nutritious soups, which, by the addition of a little spice and flavouring, have become favourite dishes with all classes.

Sugar is highly nutritious, adding to the fatty tissue of the body, but it is not easy of digestion.

Honey seldom agrees with the stomach; it ought not to to be quite freed from the wax of the comb, when used as an article of diet; it is generally laxative.

Treacle, though like most highly saccharine bodies, irritating to the digestive system, is preferable to sugar, and at the same time has laxative properties.

Olive Oil, like butter, is slow of digestion; from continental nations eating less frequently than we do, and consequently there being many hours for the digestion of food, it may be found useful in giving employment to the stomach.

Vinegar is apt to derange the functions of digestion; yet where the food is of an oily nature, or not fresh, it aids digestion, and prevents bad effects; this is especially the case on a voyage where salt meat is often eaten.

Salt is imperatively required with our food, but ought to be taken with due regard to moderation.

Spices are stimulants to digestion; but if used to excess, tend to weaken and impair the action of the stomach.

Pickles are often valuable as stimulants and preventives of putrefaction; but when indulged in as mere provocatives to the appetite, too often cause the passage of food before digestion has been completed

Tea exercises a peculiar influence over the nervous system, hence tea is employed as a drink by those who wish to remain watching or studying at night. Strong green tea, taken in large quantities, acts upon some as a narcotic, but weak tea rarely disagrees with the invalid, and is admissible and refreshing in a variety of diseases, especially those of a feverish or inflammatory tendency.

A grain or two of carbonate of soda put into the tea-pot with the tea, will greatly aid in extracting its strength and flavour. The water must boil before it is poured on to the tea, and only a small quantity should be poured on at first.

Coffee is a tonic and stimulating beverage of a wholesome character, but not so good for the invalid as tea; this is used as an an anti-narcotic by those who study at night and is given largely to patients after poisoning by opium and other powerful narcotics.

Chocolate is very nourishing, but, on account of the oil which enters into its composition, it is difficult of digestion, and apt to disagree with delicate persons.

Cocoa is less oily, and being a mild astringent, is adapted to persons with relaxed bowels.

Fermented Liquors, such as ale, porter and beer commonly known as fermented decoctions of malt and hops, deserve a slight notice. Beer differs from wine in containing less spirit, and more nutritive matter; therefore, when used in moderation, it may be considered wholesome, proving a refreshing drink,

and an agreeable and valuable stimulus and support to those who have to undergo much bodily fatigue.

Wine.—It cannot be denied that more perfect health is maintained without than with the use of this liquid; nevertheless, a moderate enjoyment of wine is not injurious to those who take open air exercise.

Ardent Spirits.—The injurious effects of spirits we beg most emphatically to impress upon the reader, as in warm climates, and in most countries visited by a voyager or emigrant, he meets only with newly-manufactured spirits, which prove most baneful to the English constitution, producing a long train of diseases. The most immediate consequences are felt in the bowels, dysentery being prevalent, and often fatal to those who give way to the degrading bestiality of over-indulgence in Australia. The incautious use of ardent spirits may produce evil consequences to others, not habitual drunkards. Of the havoc created by the new rum of the United States, all have read, and lamented over the weakness and depravity of human nature. Insanity is another disease that those who indulge in spirituous liquors are liable to. Dram-drinkers suffer from liver complaint, loss of appetite, and fatal disease of the stomach; they become thin, wasted and emaciated. Emigrants, by indulging in ardent spirits, bring upon themselves ruin in body, mind, and fortune. Dr. Prout says that, "with regard to the use of *stimulating* fluids during meals, it may be laid down as a rule, that the stomach, requiring their aid to enable it to do its duty, is in a state of disease, or certainly not a *natural* state; for the moment such fluids enter the stomach only slightly debilitated, they act as ferments, and are not only converted into acids themselves, but dispose everything else to undergo similar changes," thus accounting for diarrhœa, dysentery, &c. The same eminent physician observes, with regard to the use of tobacco that he considers it most deleterious in its effects upon the organs of digestion and nourishment.—*Journey of Discovery.*

HYDRATE OF CHLORAL IN THE TREATMENT OF PERTUSSIS.

By James Bordley, M.D., of Centreville, Maryland.

Having employed hydrate of chloral with such uniform success in almost the whole train of nervous disorders, I was led some years ago to try its efficacy in whooping-cough (as a palliative), hoping to gain thereby partial control of the neurotic element of the disease; feeling assured from the generally received opinion of its pathology, that the remedy would prove at least a good substitute for many, if not all, of the ordinary and usual antispasmodics so freely exhibited in this affection; and, from the peculiar spasmodic and nervous character of the disease, I was struck with the marked indications for its use. I therefore began its employment at once, and so fully did it perform what was anticipated from it, and such satisfactory results did it yield, that I have since used it in every case under my care.

But not until I read the report of cases by P. Brynberg Porter, in the *New York Medical Journal* for August, 1873, did I appreciate the full value of the drug. Before, I had not anticipated from its use other than palliative effects, and, fearful of pushing it too far, had only derived results proportional to the doses used, which were comparatively small. I had from the first noticed the control that the treatment had over the frequency of the paroxysms, and the lessened severity of the spasmodic action, and the general alleviation of most of the symptoms in this troublesome affection. The nature of the cases so treated not being of an aggravated type, I was therefore partially misled, and did not assign to the medicine its full value, for I attributed the mildness and short duration of the attacks partly to the type of the then prevailing disease, so that I really ascribed to the remedy but half its claim to the favourable result of my cases.

But, as before stated, after carefully reading and comparing Dr. Porter's report of cases, I was satisfied of the curative powers of the drug, and saw at once why my treatment had failed to yield me the complete results claimed by him.

Emboldened by his success, I was induced to augment the dose, and push the medicine to its full effects, and so well was I gratified with the results, that I hesitate not in asserting my conviction based thereupon, viz., that Dr. Porter's experience with hydrate of chloral was not accidental, or the result of coincident, nor attributable to the mild nature of the epidemic, but due to the immediate influence of the medicine. And although I do not claim for it the title of a specific in whooping cough, I do place it among the directly curative remedies, all of which have failed, and will fail, in some cases, however employed, which failures, however, do not in the least invalidate the claim to the position these drugs occupy in therapeutics.

The number of cases tried by me as advised by Dr. P. has been limited, but enough I think to establish—with other reported cases—the opinion I have advanced respecting the value of the medicine.

As is generally the experience of the physician, I have seen no cases in their initial state; so am unprepared to testify from personal knowledge upon its merits as an abortive agent, yet judging from its marked influence over well-developed cases, I fully anticipate from its earlier employment even happier results, especially if employed before that part of the nervous system which operates in the production of this disorder receives a more intense poisoning, developing the full train of symptoms. I would state to those who may have tried this treatment unsuccessfully, that, to procure the best results from its administration, it must be exhibited in full doses; and my experience has demonstrated to my entire satisfaction the wonderful tolerance of the drug, in all pertussis cases, even in the very young.

The dose of course must be regulated by the age

of the patient and the severity of the attack, and care always taken to observe the peculiar susceptibility in each individual case, as some children are much more susceptible to its action than others, as much so as is the case with opium and its preparations.

The course followed to my own satisfaction is to commence with a half grain for a child one year old, and increase a half grain for each additional year, and repeat every three or four hours. After noting the effect of the dose, to increase it from a half to one grain each day, according to the severity of the attack, and the peculiar tolerance of the medicine. Yet in some cases this plan may be deviated from with benefit, and the increase may be much greater and more rapid, but in the majority of cases I have found the above plan satisfactory. Of course it is necessary to watch the effect of the article (as it always is in the use of potent drugs), and, when decided symptoms of hypnosis are manifested, to suspend its use until the subsidence of such symptoms, then to begin it again in diminished quantity, to be increased as before.

I have found the "compound syrup of sarsaparilla" a good vehicle for its administration, as it masks the taste and destroys the pungency of the chloral more effectually than anything else I have tried. Some of the stimulant expectorants will prove valuable adjuvants.

I hope other practitioners who have not given this treatment a trial will do so, and all who may or have done so will report the result, that we may have more data upon the question.—*Philadelphia Medical Times.*

WHEN AND HOW TO USE MERCURY IN SYPHILIS.

The *Lancet* for Jan. 17 and 31 contains a highly interesting paper read before the Hunterian Society, Jan. 8, 1874, on this subject, by JONATHAN HUTCHISON, Sen. Surgeon to the London Hospital.

The following are the author's conclusions:—

"That mercury is probably a true vital antidote against the syphilitic virus, and that it is capable of bringing about a real cure.

That, in practice, a good many cases are really cured by mercury; the cure being proved by the restoration to good health, and, in some cases, by renewed susceptibility to contagion.

That the probability of cure depends upon the stage of development attained by the disease when the remedy is resorted to, and upon the perseverance with which it is used.

That, in order to secure the antidotal efficacy of mercury against syphilis, it is desirable to introduce a considerable quantity into the system, and to protract its use over a very long time.

That ptyalism and other evidences of the physiological action of mercury, so far from being beneficial, are, if possible, to be carefully avoided, since they prevent the sufficiently prolonged use of the remedy.

That in cases in which the patient shows an idiosynerasy peculiarly susceptible to the mercury, the indication is to reduce the dose rather than to omit the drug.

That it is impossible to begin the administration of mercury too soon, and that it should be resorted to without loss of time in all cases in which a chancre shows a tendency to indurate.

That many cases of indurated chancre, treated early by mercury, never show any of the characteristic symptoms of the secondary stage.

That in other cases of mercurial cure of the chancre, in which yet secondary symptoms do occur, they are usually milder than if allowed to develop without specific treatment.

That, when mercury does not wholly abrogate the secondary stage, it exhibits a remarkable power in delaying it

That delayed outbreaks of secondary syphilis are to be regarded rather as proof that the administration had not been sufficiently persevering than that the remedy was not efficient.

That it is probable that the risk of tertiary symptoms is in ratio with the severity and prolonged duration of the secondary stage.

That there are some grounds for believing that the tertiary symptoms of syphilis are both less frequent and less severe in those who have been efficiently treated by mercury than in others.

That mercury, cautiously given, does not, in a great majority of instances, do any injury to the general health, and that its local inconveniences may usually be prevented.

That the doctrine of the real antidotal character of mercury, in respect to syphilis, ought to lead to much more prolonged administration of it, with the hope of destroying utterly all lingering germs of the malady.

That most collected statistics as to the duration of treatment and freedom from relapse are misleading and worse than useless, because usually the treatment was far too short to be effectual.

That it has not yet been proved that there are any special forms of syphilitic disease in which mercury, ought to be avoided, although, as a general rule, it is acknowledged that it must be used with more caution in all forms which are attended by ulceration than in others..

That iodide of potassium possesses little or no efficacy against either the primary or secondary form of syphilis.

That the efficacy of mercury is often most signally proved in cases which have utterly resisted the action of iodide of potassium.

That it does not much matter whether mercury is given by the mouth, by inunction, or by the vapour bath, provided that, which ever method be selected, care be taken to avoid salivation, purging, etc.

That the doses usually resorted to for internal administration are, for the most part, too large, and thus often necessitate a premature discontinuance of the remedy.

That if one method of administration does not proceed satisfactorily, another should be tried; and that in no case of difficulty should the vapour bath be forgotten."

NOTES OF A CLINICAL LECTURE ON MALADIES PRODUCED BY BOOTS AND SHOES.

Delivered by SIR JAMES PAGET, *at St. Bartholomew's Hospital, on June 8th*, 1874.

In every case in which the foot is deformed through wearing an ill-fitting boot, foot affections, such as bunions and corns, always appear, and they may also occur to persons who have well-made feet.

There is no distinct definition between bunions and corns.

Bunion is an enlarged and diseased bursa, and is commonly seated over the metatarso-phalangeal joint of the great toe in cases where the toe is everted by the wearing of boots that are too small for the feet. A bunion may be formed not only in that place, but any part of the foot which is subjected to friction and pressure may become the seat of a morbidly-formed bursa. Over it a corn is frequently produced. A bursa may be regarded as a natural structure, developed to ward off pressure and protect the joint beneath, and for that reason it is enlarged; but it soon passes that degree of healthy character, and becomes the seat of morbid changes. These changes are—

I.—*Simple inflammation.*—A day's hard walking will cause inflammation, with increased secretion of synovial fluid, repeated attacks of inflammation tending to fill it more and more.

II.—*Gouty inflammation.*—In this case you may have difficulty in deciding whether it is gout or not. It looks like gout, and yet there is evidently an inflamed bunion. The disease is simply gout, with a bunion as a starting point.

III.—*Excessive hardness and thickening of walls of a bursa.*—The fibrous tissues around become generally hardened, thickened, and matted together. This is a consequence of repeated attacks of inflammation.

IV.—*Suppuration* not unfrequently takes place. It is a most painful affection, the pain being felt not only at the seat of disease, but in some cases up the limb as well. The integuments swell, and frequently there is lymphatic swelling, with enlargement of the glands.

V.—The bursa that has suppurated may discharge spontaneously through an *exceedingly small* orifice, and through this orifice a continual discharge may go on for years. Not unfrequently, if a *small* probe can be passed through the opening, the bursa will be found to communicate with the joint, especially in cases where great thinning of the ligamentous structures has taken place between the bursa and the joint. If this communication occurs in young persons, acute inflammation, with destruction of the joint, will follow. Not so in old persons, for they can tolerate it; but, although acute inflammation does not set in, the joint is spoiled through the loss of its cartilage.

Treatment.—(1.) Abolition of cause, viz., the ill-fitting boot, for bursæ never become diseased of themselves. The main point is that the inner line of the great toe should be in the same straight line with the inner border of the heel. It is not necessary for the boot to be very large, only well-fitting; for boots that are too large will give rise to as many corns as those that are too small. The sole of the boot should be broad, and the boot itself not lined with any material that will not yield, such as canvas, for the foot is not an organ of unvarying size. (2.) To cure the bunion, by special protection for the bunion itself by means of plasters, made of isinglass and felt of various thicknesses and shapes, to prevent the pressure of the boot. They should be placed *behind* the bunion—never on it. If placed in front, they tend to press the toe still further from the straight line. The ordinary corn-plasters sold in shops are exactly the pattern they should *not* be. The fashion you should have should be more after the pattern of a half-moon, simply serving to lift up the boot. (3.) If a bunion be acutely inflamed, it should be treated like any other active inflammation—by rest, poultices, cold or alkaline lotions, leeches, &c. (4.) Give alkalies, colchicum, &c., if the inflammation be of a gouty character. (5.) If the bunion is thickened from repeated attacks of inflammation, blistering, or the linimentum iodi are the best remedies, or rubbing the bunion with unguentum hydrargyri iodidi rubri to produce absorption. (6.) If suppuration takes place, the simple cure is to lay it *widely* open, and keep it open by placing a piece of lint between the edges. A mere puncture will only relieve the pain for a time. The best kind of opening to make is a crucial one, so as to see all the interior of the burs; but even then it will try to close before the cavity of the bursa is obliterated. Sir Benjamin Brodie recommended nitric acid to be applied to the interior of the bursa, but it is a painful application, and not better than that of laying it *freely* open.

The above enumerated affections are not all, nor even the worst of the effects of bunions, since there are some which lead to utter destruction and amputation of the foot, while others lead to senile gangrene.

Corns are really, at first, protective structures, but soon they become morbid. Three different kinds are generally spoken of:—1, soft corns; 2, hard corns; 3, warty corns. The last-named are simply warts occurring in situations where corns are generally found.

Callosities must be distinguished from corns. They are broad and diffused thickenings of epidermis on parts exposed to pressure, as in a person accustomed to walk long distances, and are only the subject of treatment when they spread to an unnatural extent. The parts beneath callosities and corns are more vascular than parts around, and so they become painful at times. Callosities are easy to cure. Water-dressing, or, what is better, an alkaline lotion,

such as sodæ carb. gr. 10. dissolved in an ounce of water, should be applied to the part at night to dissolve the epidermis. In the morning the dressing should be taken off, and the part rubbed with something hard, such as pumice-stone, a file, or a rough towel, to reduce the callosity to to the normal thickness.

Corns are more concentrated callosities, and occur when pressure has fallen on more prominent and restricted spots, the pressure being intermittent, as in the day and not in the night, for constant pressure produces wasting. Under corns of *long standing*, there seldom fails to be a bursa. Not unfrequently, in an old corn, the central portion is of a different structure to that surrounding it. In ordinary cases, the layers of epidermis are horizontal; but in an old one the central part is vertical, passing down to a depression in a portion of the cutis, so that such a corn has all the elements for causing pain. It is like a peg passed down into the substance of the cutis.

Corns are liable to all the diseases bursæ are subject to, as inflammation, &c. They may pass into the fibrous structures of the feet, but not into the joints.

Treatment.—Well-made and nicely-adapted boots are of the first importance. Plasters to prevent friction should be worn, *as long as fashion says that boots must be worn tight*. For the complete cure the corn should be cut. This corn-cutting is a most dexterous art when well practised, but when a corn is badly cut, great harm is done. The ordinary corn cutters merely shave the layers of the epidermis down level with the surface; but skilful ones, or chiropodists as they call themselves, will fairly, dig the corn out with a sharp instrument, so as to leave the cutis underneath clear, the corn having been previously rendered soft by being soaked thoroughly for a few nights before. Other methods may be used, such as the one for callosities, if the boots be altered. A fair way consists in applying caustics at night, such as nitric acid, and scraping off the epidermis in the morning. Soft corns may be treated thus as well as hard ones. They are only soft because they grow in moist places, as between the toes. A good way of treating them is to put on some soft soap at night, and rub it off in the morning.

It is a good rule in practice, when a person complains of anything the matter with the legs, to look at the boots, for you may make a diagnosis by looking at them only, since the shape of the boots will tell you how they have been worn—whether the person has walked on the inside, the outside, or never walked fairly on the heel. Persons may complain of rheumatic pains in hips, knees, and ankles, and the sole reason be corns or bunions, and badly-fitting boots.

Lateral Curvature is no uncommon consequence of corns in a young person, from standing on one foot, or one side of a foot.

Chafings of Feet.—The most common place of chafing was at the ball of the foot: but now the most common and important place is over the tendo Achillis. In one case—a young women—pyæmia and death followed on the chafing over this tendon. The marvel is that some can stand it and do not die. Chilblains occur where the circulation is most diminished.

The chafings, which happen chiefly in ladies, are caused—

1. By the use of elastic sides.
2. By a badly-made boot having a median seam at its back, so that a rubbing over the tendo Achillis is always occuring.

To heal the sore, bear off the boot by plasters; never wear elastic sides, but buttoned or laced boots, nor wear a boot with a median seam posteriorly.

Painful Bursæ.—Persons will tell you that they have pain at one spot, and that the pain on walking is intense. Nothing can be seen. The bursa causing pain is most commonly situated between the heads of the third and fourth metatarsal bones. The test is, that the pain is increased when the foot is griped from side to side, and the cure is effected by giving the foot width.—*Students' Hospital Gazette.*

OXIDE OF ZINC IN GONORRHŒA, GLEET, ETC.

We have recently known a number of very obstinate cases of gleet relieved by the introduction of a catheter, smeared with mild zinc ointment, once or twice per day. Many recent cases of gonorrhœa are much relieved by the same means, with the addition of a little carbolic acid, sulphate of zinc, or nitrate of silver. An injection containing about two grains of sulphate of zinc to the ounce of water, and the whole made thick as cream with finely-powdered golden-seal (Hydrastes Canadensis), is deemed invaluable by some who have been very speedily cured by it. It is thrown into the urethra, and allowed to remain as long as it will.—*Medical Times and Gazette.*

ERGOTIN INJECTIONS IN PROLAPSUS ANI.

Von Langenbeck, of Berlin, announces that he has lately been treating prolapsus ani "with astonishing success," by hypodermic injections of a solution of ergotin (five to fifteen parts to one hundred of distilled water). He replaces the bowel, and inserting the point of the syringe about three centimeters in depth in the cellular tissue, throws in from one to two grains of ergotin. This should be repeated every three or four days, for three or four weeks, any hard fecal masses in the bowels being first removed by a simple injection. As a means of treating a most obstinate and troublesome complaint, this method, sanctioned by so eminent a name, deserves a careful repetition.—*Medical and Surgical Reporter.*

THE CANADA MEDICAL RECORD

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FRANCIS W. CAMPBELL, M.A., M.D. L.R.C.P., LOND.

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ANTI-VACCINATIONISTS.

If Montreal is not blessed with a large number of anti-vaccinationists, it is certainly bothered with a few, who are tenaciously persistent in their efforts to establish their pernicious views among their fellow-countrymen. In season, and out of season, they seize hold of every straw, which can possibly be made to turn their way, and build upon it a tale of horror sufficient to strike terror and dismay into the hearts of the simple and uneducated. No sooner is their superstructure dashed to pieces, than they rise begrimed and covered with the dust of their own folly, and again seek a mare's nest, perchance a mare's egg, and, from their heated illogical brains, once more lay before the public tortured, unscientific deductions. We wish, indeed, that such persistency was in a better case. We wish that in every French Canadian family in Montreal, there could appear a ghost from the hosts of children whose lives have been sacrificed to this fatal doctrine, and with the finger of scorn, point to those who are doing so much to add to the already fearful slaughter which has for two years past been raging in the Eastern section of our city. To-day is not the time to argue the value of vaccination—that has been determined, beyond the peradventure of a doubt, years ago; and although the trio of medical men in Montreal who seem to have joined hands, (a recent convert being received within their ranks with a perfect ovation) may do a great deal of mischief among a class of the population who are by nature easily led, they are looked upon by their fellow-practitioners, of every origin, as simply making themselves supremely ridiculous. Drs. Coderre, Gauthier and Roy, we mention their names that the Profession of our Dominion may know the brilliant geniuses, who to day fancy their puny efforts will do aught to change the feeling of the profession as to the value of vaccination. That they may do much mischief among the public we unfortunately know too well; but influences professional opinion, no, never!

We have been induced to make these few remarks from the fact that within a month past there appeared in a daily newspaper published in Montreal, called *La Minerve*, several letters containing statements with regard to a vaccination which had recently been performed by Dr. Roy. The circumstances were detailed with much minuteness and in brief were as follows: Dr. Roy obtained some lymph from the Corporation heifer, through one of the city Health officers Dr. Larocque, and on the 25th of June, with it vaccinated a child thirteen months old: On the 27th the child was feverish and had diarrhœa, on the 9th July there was enlargement of the inguinal glands, (and Dr. Roy, strange to say, mistook it for Hernia). When the pustule was showing signs of commencing to dry *a bandage* was applied over the vessicle, and on removing it some days after *he was surprised* at the scab sticking to it, and a large and nasty scooped wound left behind. The sore however rapidly cicatrised. This case then founded a chapter of horrors; and Dr. Roy rushed into Dr. Codeere's arms and was at once embraced as a sort of prodigal returning. The Health Department at once determined to frustrate the effect this publication might possibly have on the public, and accordingly invited a number of the Medical men of the City to meet and examine the child who was said to have received such fearful injury from the introduction of the vaccine poison into its system. We were asked to be present, but were unfortunately unable to be there. On the 2nd of August, the following met to examine the child,—viz.: Drs. Howard, Rottot, Craik, Trenholme, Larocque, Dugdale, Ricard, Mount, Desrosiers and Lussier; also the Anti-Vaccination trio; Drs. Coderre, Gauthier and Roy: Having examined the child and enquired into the facts of the case, the following Resolution was moved by Dr. Howard, seconded by Dr. Mount, viz.: Resolved, "That, having carefully examined the child of Widow LeBlanc, said to have been seriously affected by the effects of vaccination, this assembly is of opinion, that there has been no proof of such being the case."

This effectually closes their mouths, for the opinion of such men as undertook this examination is of a character to command public respect. A word however, with regard to the case itself, and we think we are justified in saying that the treatment of the vaccination pustule by placing a firm bandage around it was the cause of a good deal, if not all the subsequent local trouble, and was a practice reprehensible to the last degree. We do not care to at present follow this case further, as it would only show the folly of Dr. Roy, who, a baby in vaccination, jumped to the very silly conclusion which he did; the more especially as we hope next month be able to give a detailed account of the examination of the child.

Since the above was written we are informed that the trio are again on the war-path. Another fearful case is to the fore, and that they have actually secured the services of a microscopist. We are even told that *Cancer cells* have been discovered in the matter from the pustule. *When will this folly end.*

OPENING FOR A MEDICAL MAN.

We hear there is a good opening for a Medical man at Dewittville, near Huntingdon, Que.

SWALLOWING NEEDLES.

Prof. Kosinski, of Warsaw, mentions the case of a young lady, aged seventeen years, who said she had accidentally swallowed a packet of from twenty four to twenty-five needles, of which sixteen were taken out of various parts of the abdomen by a practitioner. The patient complained of great pain in the region of the navel, the bladder, and the rectum, and loss of blood from the bowels. Several needles were found in the integuments of the abdomen, and one in the rectum. The needles lay horizontally to the surface of the skin, with the eye upwards. The patient was made to confess she had inserted the needles herself.—*Philadelphia Medical Reporter.*

THE INTERNAL ADIMNISTRATION OF PHOSPHORUS.

The difficulty of finding an appropriate vehicle for phosphorus in its medicinal uses has long been recognized. Balsam of tolu has lately been suggested for this purpose. Experiment has shown that four grains of phosphorus are perfectly dissolved by ninety-six grains of washed tolu, if melted together under water and well stirred.

The preparation so made, when examined microscopically, does not show any particles of undissolved phosphorus, and when seen in the dark, and rubbed between the fingers, it gives off a perfectly equally distributed light.

This preparation may, therefore, be formed into pills, with every confidence in the equal distribution and activity of the phosphorus.

PERSONAL.

In a recent number of the Pacific Medical and Surgical Journal, we notice an admirable article "on injuries to knee joints, with cases," by Dr. H. W. Nelson. Dr. Nelson is cousin to Dr. Wolfred Nelson of Montreal.

Dr. George E. Fenwick, Professor of Clinical Surgery, McGill University, and editor of the *Canada Medical and Surgical Journal*, sailed for Europe, by the Allan S. S. Canadian, on the 24th of July. He will be absent a couple of months. His health, which has been gradually improving, will, we hope be completely restored by the trip.

Dr. Francis W. Campbell, Professor of Physiology in Bishop's University, and editor of this journal, sails for Europe, by the Allan S. S. Polynesian, on the 29th of August. He will be absent about two months. Dr. Perrigo, will lecture for him till he returns.

Dr. Drake has tendered his resignation, as Professor of Physiology, in McGill University, which resignation his confreres have refused to accept. It is reported that Dr. Osler, (M.D., McGill, 1873), has been appointed Lecturer upon Physiology; and will thus relieve Professor Drake of a large portion of his work. We exceedingly regret the cause which has induced Dr. Drake to take this step,—viz: impaired health.

Dr. Rose (M.D., Bishop's College, 1874,) has settled at Chateauguay, State of New York.

Dr. Pentland, son of Charles Pentland of Quebec, has received a Poor Law appointment in London.

Professor Erichsen of University College London, arrived at Quebec on the 10th instant, on the Allan Mail S.S. Prussian. He visits several of his friends in Canada.

Dr. J. M. Toner, of Washington, President of the American Medical Association for last year, was in Montreal on the 11th, 12th, and 13th August, *en route* for home. We had the pleasure of a call from him, accompanied by Dr. Jackson of Mississippi

Dr. Digby, of Brantford, (M. D., McGill, College, 1866,) was in Montreal on the 13th and 14th of August.

Dr. Francis J. Sheppard, of Montreal, (M.D. McGill College, 1873.) has passed his examination for the Membership of the Royal College of Surgeons, England.

Dr. William Osler, (M.D., McGill College, 1872), has been appointed Lecturer on Physiology and Pathology, in the Medical Faculty of McGill University. Dr. Drake still retains the Professorship.

Dr. Morrisson, (M.D., McGill College, 1872) has retired from partnership with Dr. Sheriff of Huntingdon, and has removed to Waddington, N. Y. We wish him all success in his new sphere.

Dr. Silas J. Bower (M.D., McGill College, 1865), is in practice at Waddington, N. Y.

Dr. John Campbell, (M.D., McGill College, 1869) has given up practice, owing to poor health, and removed from Seaforth, Ont.

We regret to learn that ill health has compelled Dr. Drake to retire from the active duties of Professor of Institutes of Medicine in McGill University; for the present he still, however, retains nominally his position. We trust that the rest which will be thus afforded may be largely beneficial to him.

Dr. John Farley of Belleville (M.D., McGill College, 1873), was admitted a member of the Royal College of Surgeons of England, on the 22nd of July.

Dr. J. Hughes Bennett, who for many years has filled the chair of Physiology, in the University of Edinburgh, has resigned on account of ill health. There are several candidates for the position, among them, Dr. McKendrick, who for the past three years has read Dr. Bennett's lectures to his class, and Dr. Pettigrew, who is connected with the Extra Accademical School in Edinburgh.

Dr. Henry Thomas Corbett, of Ottawa, has been appointed an Associate Coroner for the County of Carleton.

Dr. Donald Alexander McCrimmon, of Lucknow, Ont., has been appointed an Associate Coroner for the County of Bruce.

Dr. Moffat Forster, of Thorndale, Ont., has been appointed an Associate Coroner for the County of Middlesex.

Dr. Russell (M.D., University of Edinburgh,) son of Dr. R. H. Russell, of Quebec, arrived home by the *Sarmatian* on the 2nd. of August.

Dr. Tabb, Professor of Botany, University of Bishop's College, has resigned his chair. He has removed to Sherbrooke at the earnest solicitation of many of his friends residing in that rising town. Applications for his Chair will be receivedby the Faculty up to the 1st Septemper.

Dr. John Holwell (M.D., McGill, 1868,) is Surgeon of the Allan Mail *S.S. Nova Scotian*.

CANADA MEDICAL ASSOCIATION.

The seventh annual meeting of this Association, was held at Niagara Falls, Wednesday, 5th August, 1874.

The President DR. MARSDEN, called the Meeting to order at 11 o'clock.

There were present Drs. Marsden, Quebec; Botsford, St. John, N.B.; Caniff, Toronto; Hingston, Montreal; Trenholme, Montreal; Yeomans, Mount Forest; Grant, Ottawa; Robillard, Montreal; H. H. Wright, Toronto; McDonald, Hamilton; Thorburn, Toronto; Thompson, Montreal; David, Montreal.

The Minutes of the last day's proceedings of the meeting of last year were read and confirmed.

Drs. Grant, Hingston and Wright were requested to take seats on the platform.

DR. CANIFF, Chairman of the Committee of Arrangements, reported as correct the credentials of Dr. A. A. Thompson, of Lansing, Michigan, and Dr. Edward Jenks, President of the Detroit Medical College and Professor of Diseases of Women, &c. &c., &c., as delegates from the American Medical Association, and Dr. H. P. Yeomans, Mount Forest, as delegate from the Union Medical Association of South Grey and North Wellington, and the President accorded them, in the name of the Association, a cordial welcome.

Letters of excuse for not being present were read from Drs. Dawson, C. C. Hamilton and Howard.

The President then delivered his usual address:

When it was moved by DR. TRENHOLME and seconded by DR. BOTSFORD: "That the thanks of the Association be tendered to the President for his address, and that it be referred to the Publication Committee," which motion was carried unanimously.

On the motion of DR. CANIFF, seconded by

DR. WRIGHT, the following gentlemen were elected permanent members: Dr. Baxter, Cayuga; Mullin, Hamilton; H. P. Wright, Ottawa;—and on the motion of DR. WRIGHT, seconded by DR. TRENHOLME, Drs. John Turquand, Woodstock, Hugh McKay, Woodstock; Daniel Clark, Princeton and D. A. Hart, Montreal.

The proposed alterations to the bye-laws were then brought up and DR. BOTSFORD moved that they be considered, clause by clause, which was done, and were proceeded with as far as the Standing and other committees, and all passed with a few verbal alterations, when the Meeting adjourned for an hour.

AFTERNOON SESSION.

The President assumed the chair at 3.30 p.m. The Minutes of the morning's Meeting were read and confirmed.

On the motion of DR. MCDONALD, seconded by DR. BOTSFORD, Dr. Malloch and Dr. Case, both of Hamilton, were elected permanent members.

The remainder of the bye-laws were then discussed and, with some amendments, all were passed, when DR. BOTSFORD, seconded by DR. CANIFF, moved. "That these by-laws, as amended, be adopted," which was unanimously agreed to.

The following gentlemen were then proposed and elected as the Nominating Committee: Drs. Grant, Baxter, Clark, Robillard, Hingston, Trenholme, McDonald, Turquand, with power to add to their number.

On the motion of DR. GRANT, seconded by DR. MCDONALD, the consideration of the proposed Medical Act was postponed indefinitely.

On behalf of the Committee on Vital Statistics, Dr. Botsford stated he was not aware of any action having been taken.

DR. GRANT moved, seconded by DR. CANIFF, "That, in consideration of the best interests of Medical Science, it is desirable that a Medical Conference should take place between the American and Canada Medical Association, at some central point to be determined upon, and that the American Medical Association be advised as to the desirability of thus becoming more intimately acquainted, and affording an opportunity for the discussion of Medical and Surgical Subjects on a common basis," which was carried unanimously. When DR. HINGSTON, seconded by DR. BOTSFORD, moved, "That, in the event of such a conference being determined upon, it would be desirable that the secretary of the Canada Medical Society notify the various local Medical Societies, so that our Dominion might take part in a manner worthy of the occasion, and in keeping with the best interests of Medical Science," which motion was agreed to.

Dr. Trenholme then read a paper on Uterine Decidua, and Drs. Clark, Hingston, McDonald, Grant, Yeomans, Botsford and Sloane spoke on Dr. Trenholm's paper, causing a most interesting discussion.

Dr. Jenks offered some remarks as to the meeting of the two Associations, with thanks for the reception accorded him and his friend, Dr. Thompson.

The Meeting then adjourned till 8.30 p.m.

EVENING SESSION.

The chair was taken by the President at 8.30.

The Minutes of the afternoon session were read and confirmed.

On the motion of DR. CANIFF, seconded by DR. MCDONALD, Dr. Mack, of St. Catharines, was elected a permanent member. Dr. Mullin presented to the Association a preparation of the skeleton of a double-headed monster, exhibited drawings of it, and read a lucid and interesting paper on its formation.

Dr. Malloch read the notes of a case of defective development; and, on motion, the thanks of the Association were accorded to Drs. Mullin and Malloch for their interesting papers.

Dr. Botsford exhibited a model of a plan he had adopted in relieving pain in moving patients, explaining the method, and a vote of thanks was given Dr. Botsford.

Dr. Trenholme then replied to the questions that had been put him, in the discussion on his paper, and another very interesting discussion took place, and a cordial vote of thanks was moved and passed to Dr Trenholme for his paper and the interesting and instructive discussion it produced, and a request that he would hand it to the Publication Committee.

DR. TURQUAND, seconded by DR. TRENHOLME, proposed Dr. William Scott, of Woodstock, as a permanent member,—Dr. Scott, was unanimously elected.

Dr. Malloch read a carefully prepared paper on the Contagiousness of Enteric Fever, and a vote of thanks was accorded Dr. Malloch, with the request that it be given the Publication Committee.

The Secretary read a letter from Dr. Rosebrugh, stating that, owing to illness, he had been unable to prepare a paper to lay before the Association.

It now being 11 o'clock, on the motion of DR. BOTSFORD, seconded by DR. MCDONALD, the Association adjourned till 9.30 to morrow morning.

SECOND DAY, THURSDAY, 6TH AUGUST.

The President opened the Meeting at 10.30 a.m.

Dr. W. Scott, of Woodstock, exhibited a pessary of his invention for retroversion and retroflexion of the uterus, explaining its uses and advantages; a vote of thanks was accorded Dr. Scott, and the matter referred to the Committee on Obstetrics.

On motion, Dr. J. Fulton, Toronto, was elected a permanent member.

Dr. Hingston, as chairman of the Nominating Committee, reported the following gentlemen as the officers for the ensuing year:

President.....	Dr. LeBaron Botsford, St. John, N.B.
Vice-Pres. for Ontario	Dr. J. D. McDonald, Hamilton.
" *Quebec*,.....	Dr. J. P. Rottot,.....Montreal.
" *Nova Scotia*,.....	Dr. Wickwire.....Halifax.
" *New Brunswick*,	Dr. G. A. Hamilton,...St. John.
General Secretary.....	Dr. David,.....Montreal.
Treasurer,.....	Dr. Robillard,.....Montreal.
Local Secretary for Ontario	Dr. Malloch,.....Hamilton.
Local Secretary for Quebec.....	Dr F. E. Roy, ...Quebec
Local Secretary for Nova Scotia,...	Dr. Morgan,.....Halifax.
Local Secretary for New Brunswick,	Dr. Gregory,.....Fredrickton.
Committee on Publication.....	Drs Marsden, Peltier, W. Scott,
Committee on Medicine,.....	Drs. Howard, Sewell, H. H. Wright. .....
Committee on Surgery,.....	Drs. Hingston, Canifi, Grant.....
Committee on Obstetrics,.....	Drs. Trenholme, Lavell, U. Ogden.....
Committee on Therapeutics, New Remedies, Medical Jurisprudence,	Drs. D. Clarke, Thornton, Fenwick,
Committee on Necrology	Drs F. W. Campbell, Grenier. DeWolf
Committee on Medical Education & Literature, ...	Drs. Bayard, Parker, Fulton, ...
Committee on Prize Essay, ...	Drs. Hodder, Oldright, Craik,.....
Committee on Climatology, ...	Drs. Bosford, Larocque, Thompson, Mullin, Turquand,

All of whom were unanimously elected, when Dr. Botsford returned thanks for his election to the office of President.

On motion of Dr. Thorburn, seconded by Dr. Mack, Dr. W. L. Copeland, of St. Catharines, was elected an ordinary member; on motion of Dr. Oldright, seconded by Dr. Fulton, Dr. A. L. Hamilton of Millbrook, was elected an ordinary member.

Dr. Robillard, seconded by Dr. Botsford, proposed that Halifax be the next place of meeting, ten voted for and ten against, the President gave the casting vote in favor of Halifax, and the question being put it was carried unanimously.

Dr. Botsford moved, seconded by Dr. McDonald, "That the same sum as was voted last year be given the Secretary, and that the Treasurer be paid his expenses," which was carried unanimously.

Dr. Hingston, on behalf of the Auditing Committee, reported having examined the Treasurer's books and accounts and found them quite correct.

Dr. Hingston offered a few observations on the methods of arresting hemorrhage which produced an interesting discussion, on which Drs. Mack, Sloan, Grant, Trenholme, Geekie and Turquand took part.

Dr. J. M. Fraser, London, Dr. Jno. Fraser, Southall, and Dr. Burgen, Welland, were, on the motion of Dr. Thorburn, seconded by Dr. Baxter, elected permanent members.

Dr. David then read a paper, prepared by Dr. Howard, on the Pathology of Tubercle and Pulmonary Consumption, when it was moved by Dr. Oldright, seconded by Dr. Rosebrugh, and unanimously resolved, "That, while regretting the absence of Dr. Howard, the thanks of this Association be given him, and his interesting paper handed to the Committee of Publication.

Dr. Botsford, seconded by Dr. Wright, moved, "That the thanks of this Association are due and be given to, Messrs. Colburn and McOmber, the proprietors of the Clifton House, for their kindness and liberality in having reduced their fares, and for having given their hall for the Meetings of this Association free of charge," which was carried.

Moved by Dr. David, seconded by Dr. Oldright, it was resolved, "That Dr. Botsford, President elect be authorised to name the Committee of Arrangements for the next Meeting at Halifax.

On motion, the President left the chair, and Dr. McDonald was requested to take it, when Dr. Baxter, seconded by Dr. Thorburn, moved a vote of thanks to the President for his able conduct in the chair, which motion was carried; Dr. Marsden returned thanks.

A vote of thanks was unanimously passed to the General Secretary, the Treasurer, and the other Officers of the Association, and the Meeting adjourned.

A. H. DAVID, M.D. Ed.,
General Secretary.

BIRTHS.

In Worcester, Mass., on the 2nd August, the wife Dr George J. Bull, (late of Montreal,) of a son.

In Montreal, on the 22nd July, at 616 Dorchester Street, the wife of Dr. Geo. A. Baynes, of a daughter.

DIED.

At St. Anns, on the 8th August, of Dysentric Diarrhœa Edith Ann. aged 8 month, infant child of Gilbert Prout Guimond, M.D., M.R.C.S., Eng., Professor of Practical Chemistry McGill University.

Original Communications.

Address of WILLIAM MARSDEN, A.M., M.D., *President of the Canadian Medical Association, delivered at Niagara Falls, 5th August*, 1874.

GENTLEMEN:—Were I to consult my own inclination, I would not occupy any portion of the brief space of time allotted to your Annual Meeting by an address, but, as the tyrant custom requires it, I must conform, and will be as concise as possible. I avail myself of the earliest opportunity which presents itself to thank you for the honor you have conferred upon me, in electing me your President, but I regret that language fails me to express the depth of my feelings. It has often been my good fortune, during my long professional career, to have been complimented in a similar manner, but never in the same degree. When I see around me so many distinguished members of this Association who would have filled this chair so much better than myself, and when I look back and remember your—I mean our—happy choice of the able and eloquent chairman who presided over our deliberations during the first three years of the existence of this Association with so much tact, talent and success—the Hon. C. Tupper, M.P., C.B., &c.—I feel all the more my inability to do justice to the office without your kind indulgence, although I will yield the palm to no man for professional zeal—my maxim having ever been, where the public interests of our noble and humane Profession were at stake,—*semper paratus!*

One of the subjects that will engage the attention of this Meeting is the proposed alterations of the By-Laws. The Committee appointed at the 5th Annual Session of the Association, held at Montreal, in September, 1872, to amend the Constitution and By-Laws, reported to the Annual Meeting held at St. John, N. B., on this day twelve months past, and recommended, "that the Plan of Organization of the Canadian Medical Association adopted at the Conference of the Medical Profession held at the city of Quebec, October, 1867, and the Code of Medical Ethics, be continued without amendment;" and further recommended, "that a Constitution and By-Laws be adopted instead of those heretofore in force." A copy of the labors of that Committee is now before you, entitled, "proposed alterations to By-Laws to be considered at the Annual Meeting at Niagara Falls, Wednesday, 5th August, 1874.

Having carefully examined the proposed alterations, I am of opinion that they will be a great improvement on the present By-Laws, with some slight changes and additions.

In Ethics, for example:

It is proposed "to continue the Code of Medical Ethics without amendment," but no provision has been made in the proposed By-Laws for a permanent Committee on Ethics. Such a committee is in fact a necessity, to which, in my humble opinion, all cases of presumed infraction of the Code should in the first instance be referred for report, before any public action is taken by the Association, or record made. This would prevent the odium which might attach to persons falsely charged: and would avoid the needless wounding of the sensibilities of such as were really innocent of the accusations brought against them.

So strongly was I impressed with this conviction, that I gave notice of motion in 1870, and, on the 14th Sept., 1871, carried a motion unanimously, and it was resolved, "that the Nominating Committee be instructed to name a Permanent Committee on Ethics, to be composed of ten members, representing each province of the Dominion." The Session, however, adjourned so soon after that no Committee was named at that Meeting. I would therefore respectfully recommend that, as it is proposed to continue the Code of Ethics, a Standing Committee on Ethics should also be added to the proposed By-Laws.

Registration, Medical Statistics, and Public Hygiene, are all subjects which call for action with a view to Legislation.

Committees were named at the first Meeting of this Association, held on the 9th and 10th of October, 1867, at Quebec, to report on the best means of obtaining these desirable objects. The Committee of Registration, of which I had the honor of being Chairman, reported, "that, after mature deliberation, they recommend, that this Association take the necessary steps to have carried through the Dominion Legislature an act similar (in so far as it is adapted to this country) to the Medical Act of Great Britain, passed in 1858."

The Committee on Medical Statistics and Hygiene, (both of which subjects were referred to the same Committee) reported on Hygiene alone, through Dr. Hingston, the Chairman, stating, "That there was a necessity for a comprehensive system of Sanitary laws," and promised a report on Vital Statistics at a later period of the Session. A reference to the Minutes of the proceedings of the Association (so far as attainable) shew that nothing whatever has

been done in the way of Legislation in this matter.

Another Committee on Statistics and Hygiene was named at the Annual Meeting of 1873, held at St. John, N. B., of which Dr. Botsford, one of our intellectual, indefatigable and zealous Ex-Vice-Presdents is Chairman. He wrote to me on this subject in March last as follows: "I was named as one to bring the matter of Hygiene before the Dominion Legislature, especially looking to a registration of deaths and the causes, over the whole Dominion.—For the province of New Brunswick I have to report that, whilst Boards of Health are provided for every county, and a registration of marriages for the Province, this is all that has been accomplished; and a registration of deaths, and the causes, does not exist!"

Although, Gentlemen, I quite concur in the sentiments expressed by Dr. Workman in his address of welcome at our second Anniversary Meeting, that "neither the elevation, nor what is styled the protection of our Profession is to be achieved by acts of Parliament,—and, that if we would be elevated, we must climb the steep ascent ourselves," yet there are certain subjects that demand legislation before we can make any useful application of them. Among these, I class Vital Statistics, Registration, and one uniform system of preliminary and professional education, examination and licensing. Committees have reported on all these subjects, and their reports have been adopted, and, as Dr. Tupper said in his address at Ottawa in 1870, "a far higher step has been taken by resolving that it was for the interest of the public and the Profession, that one common portal of entrance should be established for the purpose of granting licences to practice."

Precisely the same opinions have frequently found utterance in the meetings of our elder sister, the American Medical Association, as will be seen by a reference to their transactions, from which, had time permitted, I might profitably have made some extracts. This is a subject that has occupied the best attention of various Committees since the formation of this Association, and resulted in the forming of the "Contemplated Medical Act for the Dominion of Canada," which was amended at the third Annual Meeting of the Association, held at Ottawa in September, 1870. It was again amended at the Annual Meeting held at Quebec, in Sept., 1871, and finally was referred to the Annual Meeting held in Montreal in 1872, each and every member of the Association having received in the meantime a printed copy of the same. This proposed Act has been a bone of contention, an apple of discord, to the Association ever since it was first introduced. In the western province of the Dominion, Gentlemen, you have an Act based upon the English Medical Act, which is working most satisfactorily. The Province of Quebec, also, has an Act that needs very little amendment. The Eastern Provinces, however, of Nova Scotia and New Brunswick, which are younger in Medical Science and Literature, and have hitherto been almost without medical schools, are not so far advanced in the medical sciences as the older Provinces of the Dominion, and are not ready to enter in the same platform as their older brethren, and, therefore, at the Annual Meeting, held in 1872, it was resolved unanimously, to postpone the further consideration of the proposed Bill for two years. Thus it has been suspended like Mahomet's coffin, between heaven and earth, for two years past, and will possibly come up for action at this Meeting. Doubts have been expressed by lawyers, as well as legislators (and by no less an authority than Dr. Tupper) of the legislative powers of the Parliament of the Dominion to pass any Medical Act for the whole Dominion, unless or until previous concerted action has been taken by the Local Legislatures; and to this opinion I strongly incline. In the American Medical Association progress is being steadily made in that direction by state legislation, and I think the best thing we can do is to agitate the subject in each Province of the Dominion, and separately and gradually lead them up to the highest standard required.

Thus only can we hope to succeed in Dominion legislation. I would, therefore, respectfully suggest that, when this matter comes up, some member will move that its consideration be indefinitely postponed and thus put an end to a fertile source of discord. Let us carefully avoid all medical legislative action for the present, for to my mind no greater blunder could be committed in this democratic age, than seeking medical legislation, as the sympathies of legislators generally, and especially the unscientific who compose the majority, are in favor of quackery and free-trade in medicine. Another subject, Gentlemen, to which I would call the attention of this Meeting is the great loss that the Association has sustained by the non-publication of the Minutes of its proceedings for the past two years. Whether the Association has the means to publish the Transactions, Reports, Proceedings and other papers or not, the Minutes of our proceedings, at least in my opinion, ought to be in the hands of every member of this body. I trust we shall this day repair our error, and make any necessary sacrifice to publish them. The valuable unpublished papers which have

been presented, read, and approved by this Association, and which must have cost their authors much study, valuable time and trouble, remain a dead letter,—a dumb record— a sealed book to the whole medical and scientific world. For this seeming neglect I know not whether the accomplished and industrious writers, or the reading members of the Profession at large have most reason to complain. Although this Association was organized for the protection of the interests of the Medical Profession, and the maintenance of its honor and respectability, it also contemplated the advancement of its knowledge, and the extension of its usefulness; and shall it be said of us, that we have done nothing to promote these high and laudable objects because our transactions embrace none of the essays and papers which for originality, learning and profound research would be worthy of honorable place in any similar volume? Let us, Gentlemen, this day, I repeat, wipe out this reproach, and either publish them, or return them to their respective authors, for such action as they may see fit to adopt, for nothing should be kept back or hidden in this progressive age. Progressive age did I say? Yes, progressive! And it would be very easy did time permit to shew the wonderful strides that medical art has made even in our own days. It has been raised from the level of a mere conjectural science to the status of a positive art. Mental agony and physical torture have now succumbed to bloodless and painless operations. Operations which formerly no amount of moral or physical courage could have induced the sufferer to submit to, are now endured with complacency.

Chemistry is a new science.

Were it possible to weld the link in the mortal chain which was so suddenly snapped asunder on the morning of the 29th of May, 1829, at Geneva, in Switzerland,—or to revive the mortal spark in the poor boy of Penzance, Cornwall, who was a popular lecturer on Chemistry to the Royal Institution, London, at 22 years of age,—or to bring before this Meeting him who for seven successive years was the unopposed President of the Royal Society of London, Sir Humphrey Davy, he, like Rip Van Winkle, would find all the ancient landmarks swept away by the progress of that science which his genius had done so much to fructify and embellish. He would be a student still, Gentlemen, as we all ought always to be.

Notwithstanding the extraordinary strides that have been made of late years in the Medical and Surgical arts and sciences, and the accessory branches of knowledge, and although the rewards are by no means equal to the responsibilities of the medical practitioner, nevertheless his sterling worth is not unfrequently recognized and requited.

Mr. Gladstone, at the dinner of the British Medical Association last year, paid a just tribute to our art, and said that but for the care and watchfulness of a succession of able physicians it would have been impossible for him to have gone through the fatigues of public life. It is, said he, among the wonderful and noble distinctions of your illustrious Profession that, although its members may not receive that acknowledgment which awaits the soldier when he falls on the battle-field, yet they are to be found in countless numbers among the truest martyrs in the cause of humanity. He further said, truly, that medical knowledge has advanced in recent years in a degree which is not, perhaps, paralleled in any other profession. There is at present a greater and more sustained earnestness of purpose, and a more general exaltation of the aims of medical men. And he concluded thus:—This age is distinguished by an unbounded activity in all the sciences of observation. Of all these sciences yours is the noblest. It is given to you to study the relations between the wonderful body and the still more wonderful soul and mind of man. You tread that borderland in which the two come in contact. It is very easy to describe the post office or the railway system, but you have to deal with a thing far more subtle when you attempt to grasp human nature at a whole. Human progress is not to be described by formularies. It is only by the most patient observation that a sound and comprehensive knowledge on such a subject can be acquired. To you it belongs to seize the great opportunities and to accept the great responsibilities which attach to the Profession of which you are members, and to shew yourselves worthy of the great vocation with which you are entrusted.

Apologising for having occupied so much of your valuable time, and again thanking you for the high honor you have conferred upon me (probably as a recognition of the part I took in originating and organizing this Association) I leave its perfection in your hands, Gentlemen, and in your hands it is safe. It is, I firmly believe, destined to promote the blessings of fraternal harmony, professional unity, andsuccessful self-government. An Association such as ours—composed of Scientific Philanthropists—the residents of the frozen North and the sunny South; the denizens of the forests, hills and dales, lakes and islands of a whole continent, animated

by the most lofty and honorable impulses, casting their various and opposite opinions and prejudices together on the common altar of science, and uniting an independent, cosmopolitan band from Prince Edward Island to British Columbia—from the Atlantic Ocean to the Pacific, must and will be felt and heard. United, concorded action—no law can resist;—no law-maker can repudiate.

Finally, Gentlemen, when I retire from this chair I shall remember that "the private station is the post of honor," and I beg to assure you that I shall always (whether present or absent) try to uphold the honor and dignity of our noble Profession, and especially of this Association.

Progress of Medical Science.

NASAL CATARRH.

This young woman has been annoyed for many years with a constant discharge from her nostrils. In quantity it is so profuse that the frequent use of a handkerchief is required to prevent it from interfering with respiration, but, whenever it is increased, as it frequently is under the effect of a cold or damp atmosphere, even this expedient will not suffice to keep the nares clear, and she is obliged to breathe partially through her mouth. In color the discharge is yellow; it is expelled in tough masses, more rarely in large dried flakes, which are sometimes so adherent to the mucous membrane as to be detached only with difficulty, and separation is occasionally followed by a flow of blood. During sleep this muco-purulent material gravitates into the pharynx, when, upon rising, it drops down, and has to be expelled either by coughing or a sudden expiratory effort. Its taste is nauseating and salt-ish, and although it was devoid of odor in the early stages of the disease, yet it is now becoming somewhat offensive.

She has, evidently, *nasal catarrh*, a disease which is becoming more and more frequent each year, and in some of the New England States it might be called almost a universal complaint, few escaping the malady either in its milder or severer forms. This great prevalence in the above mentioned region would indicate an atmospheric influence, and there are those who, having been previously affected with the disease, cannot even enter such atmosphere without a renewal of their symptoms in a few hours.

To those unaccustomed to this complaint it might seem a trivial affair, but I can assure you that it becomes a source of the greatest annoyance and inconvenience to its sufferers. In severe cases the obstruction to respiration is constant, and is accompanied by a peculiar unpleasant dryness of the mucous membrane. If the case is an old one the inflammation of the Schneiderian membrane extends from the nares to the lining investment of the frontal sinuses, and a constant dull pain or weight is experienced above and between the eyes, a sensation which has been described as though one were carrying a heavy stone in the skull. Occasionally the inflammation travels along the ductus ad nasum, the conjunctiva becomes reddened, and vision is frequently dimmed. Again, it may pass along the pharynx and traverse the Eustachian tube, thus setting up a catarrh of the middle ear, or it may extend into the maxillary sinus, or even downward, by continuity of structure, into the larynx, trachea, and bronchi. After several years the discharge assumes a purulent character, and occasionally renders the breath so offensive as to become of most serious importance to the sufferer, by its interference with certain occupations, as dentistry, etc. This odor never becomes as bad as in ozœna, but it is sometimes exceedingly disagreeable.

When a catarrh case consults you it has usually passed into a chronic condition, as in its first stages the patient considers that he has only a cold in the head and that it will soon disappear spontaneously. If now you will examine the nares you will find the mucous membrane red and inflamed, with small crusts adhering to its surface at various points. A rhinoscope will give you an excellent view of the posterior chambers, and will, in old cases, reveal the fact that the disease also implicates the pharynx, and that small ulcers are present.

In regard to its course, I would say that it does not tend to recovery, but rather continues on year after year, ameliorating at times, but relapsing at every fresh exposure to cold.

A change of climate is often of the utmost advantage, and will do more, in certain cases, than all the remedies which have been tried; in fact, it sometimes effects an almost immediate cure.

Medicines in great variety have been tried, and I assure you that you will find the malady one of the most intractable and disheartening which it will be your ill fortune to treat. When the patient is in good health local applications may be relied upon, and can be best applied to all the sinuosities of the cavity by means of the nasal douche (Thudichum's or other), an apparatus which, as you have perhaps seen, consists of a large jar or bottle, with a tube running from its base, to which is attached a nozzle intended to be introduced into the nostril of one side. The jar is filled with medicated liquid, placed above the patient's head, and the stop-cock turned, when the force of gravity causes a gentle current to flow into one nostril, which, if the head is held far forward, will penetrate all the cavities, pass behind the septum, and appear at the opposite opening. The liquid will not run down the throat, for as soon as it touches the back part of the soft palate a resistive spasm occurs, and the postrior nares are instantaneously closed. The operation is not unattended by danger, however, for the liquid may pass off into the frontal or maxillary sinuses, and by causing puffiness of the lining membrane, become confined, and cause great suffering. The greatest danger, however, is from its entering the Eustachian tubes, and making its way to the middle ear, where a strong solution may set up most violent inflammation.

An improvised douche may be made with a basin and a piece of elastic tubing. The basin containing

the medicated liquid is placed above the head, as before. The tube being immersed in it, is thus filled, and one end is brought out and applied to the nose, when the syphon action will cause a sudden stream to flow. I have given a thorough trial to nearly all the alteratives, deodorizers, and astringents which have been used for local medication, but have come down to the belief that the chlorate of potassa is best adapted to a large number of cases. It is used in the strength of ℥j to the Oj. This should be employed twice or three times in the day, a pint or more of liquid being used at each application, its use being preceded by a thorough cleansing with the douche and salt water. It must be remembered that all such local remedies soon lose their effect, and must be either increased in strength or others substituted for them, for a period of one or two weeks. Next in usefulness to the chlorate of potassa is the permanganate, of variable strengths, then in order of merit follow, zinc sulph., plumb nit., arg. nit., acid carbol., acid tannic, tinct. iodin., and so on through the whole list. The strength of these solutions must be varied to suit the condition of the mucous membrane. Their use should be followed by a slight stinging pain, which should last but a few minutes; longer than this would show the solution too concentrated. Ordinary salt and water will cause a free flow of mucus, which is of use in loosening the crusts and preparing the membrane for the application of other medicines. If any ulcerations are visible from the anterior nares they may be touched with a 10 gr. sol. arg. nit. Whatever liquid is used should always be employed lukewarm.

When the congestion is great in the frontal sinuses, relief may be afforded by the constant application of very hot cloths. I have found also that this feeling of weight and discomfort in the forehead and eyes may be somewhat avoided by abstaining from bathing at all in cold water, ablutions being always performed with water of a temperature above 100° F.

In some very obstinate cases (all of them are obstinate) relief may be afforded by galvano-faradization, and I have cured two cases by this means which had resolutely defied all other measures.

Never promise a speedy cure, but impress upon your patients the necessity of a resolute continuance of the remedies for a year. One frequent cause of failure is due to the fact that the remedies used do not come in contact with the diseased surface, a failure which is avoided by directing a quart of tepid salt water (℥j to Oj), to be used just previous to its application. Carbonate or phosphate of soda may be used, of the same strength. In cases where ulceration is suspected, or where the disease is chronic, never neglect to make a complete and thorough examination of both anterior and posterior nares, with a bright light or the rhinoscope.

When the discharge is very fetid, it is due to some special cause other than simple chronic inflammation of the lining membrane, and a careful search should be made for diseased bone, adventitious growths, rhinoliths, foreign bodies, other exciting cause. Such a discovered cause, removed, would, of course, greatly assist in a cure. In scrofulous cases the fault is frequently constitutional, and should be met by cod liver oil, iron, iodine, etc., while the fetor arising from the long retained and decomposing secretions is allayed by frequent syringings or douchings with carbolic acid, permanganate of potassa, chlorinated soda, sulphocarbolate of zinc, etc., all properly diluted and used three, four, or more times in the day.

When the bones are diseased we have the worst form of *ozæna*, a disease which is even more offensive and troublesome than the severest cases of catarrh.

The woman was put upon the use of potas. chlor. ℥j to Oj per die, and returned in three weeks feeling much more comfortable. Its use was ordered to be continued for several months, nitrate of lead being substituted in its place every fourth week.

PERISCOPE.

The Treatment of Cerebral Hemorrhage.

Dr. J. Crichton Browne gives the following directions in the *Medical Press and Circular*. He says:—

As soon as the attack comes on, my advice is, lay the head low, nearly on a level with the body, in that position which is always assumed when it is desired to induce the cerebral anæmia of sleep, and give an injection of ergotin under the skin of the arm. Contraction of the vessels and occlusion of the open orifices may thus be secured. Of course, nothing can be more difficult than fairly to estimate the effect of treatment upon a hemorrhage on the brain; but I think, and the impression must go for what it is worth, that I have once or twice stopped the extension of a clot, and so prolonged life, by the timely administration of ergotin. I think also that I have seen turpentine beneficial when given immediately after an apoplectic stroke. It is scarcely necessary to say that turpentine must be avoided when the kidneys are diseased. Mustard to the calves of the legs and feet—a good remedy in apoplexy much extolled and much ridiculed—has seemed to me not unproductive of good. Again and again has decided rousing followed upon a resort to this application, which in all probability operates not so much as a derivative as a powerful reflex stimulant, inducing contraction in the cerebral arteries through stimulation of sensory nerves.

Croton oil has long enjoyed a reputation as a valuable medicine in apoplexy, and facts might be adduced to show that its reputation has not been altogether undeserved. The rapidity with which it unfolds the bowels, the copious watery evacuations which it secures, and the abdominal hyperæmia which it probably induces, are all ways and means by which it might favorably influence a hemorrhage taking place in the brain.

Bleeding cannot be expected to be beneficial when a clot is forming or has been formed. Trousseau has argued argued that under such circumstances it

does positive harm, and has adduced cases which go far to establish his position.

If swallowing is very difficult, and is accompanied by choking, it will be advisable to pass the œsophageal tube three or four times in the twenty-four hours, and so introduce into the stomach, milk, beaf tea, and concentrated food. There is really no risk whatever in this operation, even in an apoplectic patient, when it is skillfully performed. Whenever it is requisite to use the œsophageal tube, nutrient enemata should be at the same time administered. The bladder should receive careful attention, as it is apt to become distended and cause mischief. The decubitus is also worthy of consideration. Whenever a clot of any size exists on the brain there is a tendency to a low type of pneumonia, or to œdema of the lungs, the incursion of which is much favored by that hypostatic congestion which occurs in the lower lobes of the lungs when a patient continues lying upon the back for a prolonged period. By having the patient turned upon his or her side at stated intervals this imminent danger may be averted.

A day or two after the formation of a non-fatal clot a state of reaction is established. An inflammatory fringe surrounds the clot, and the pulse and temperature rise. This condition can only be combated by quietude and full doses of bromide and iodide of potassium. Sometimes alcohol is requisite, and I have given it under such circumstances, even in large quantities, without detriment. When the reaction has subsided the same medicines may be continued, often with signal benefit. The bromide of potassium, acting as a sedative, soothes any cerebral irritation, and the iodide, in a way which is not understood, helps towards the contraction of the clot. Arnica also has been employed in America to induce the absorption of intra-cranial clots, its valuable property of promoting the removal of subcutaneous extravasations when applied externally having doubtless suggested its internal use under such circumstances. All that I can say of it is, that in three cases of cerebral hemorrhage in which I prescribed drachm doses of the tincture of arnica three times a day, very steady progress was made, and a very satisfactory quota of power was regained.

NOTES OF A CLINICAL LECTURE ON MALADIES PRODUCED BY BOOTS AND SHOES.

Delivered by Sir James Paget, *at St Bartholomew's Hospital, on June 1st*, 1874.

Maladies depending on the wearing of too small and badly-fitted boots are very numerous, such as deformities of the toes, bunions, corns, in-growing nails, painful bursæ, &c. In order to study deformities of the toes, you should obtain a good idea of a perfect foot. In a perfect female foot you find:—

1. Great width and fullness of instep.
2. Well marked great toe.
3. Long second toe, projecting a little beyond great toe.
4. Very small, or in some cases almost suppressed little toe.

In the male the great toe is not quite so prominent as the second. The feet of all persons cannot be deformed, nor can corns and bunions be produced in every one. It is doubtless owing to their complete reactive nutrition, the repair that takes place in the night being more than enough for the day's waste. This is not impossible when it is remembered the complete repair that occurs after great muscular waste, as in athletes. The troubles then set up in the integuments, faciæ and tendons of the toes are rather to be regarded as diseases set up by the pressure and friction of boots.

I.—*Mutual Compression of the Toes.*—Naturally there is a considerable interval between the first and second toes, and in a less degree between the others, so that when the foot bears the weight of the body, each toe is free from contact with its fellow, hence, in wet clay, you would receive a separate impression of each. In the deformity, though, which is produced by small boots, the toes are squeezed together, so as to form a transverse arch; the first and second toes then only bearing the weight of the body. Thus there are formed:—

1. Soft corns between the toes by their friction on each other.
2. Hard corns on outer side of little toe and inner side of great toe, and projecting points pressed upon.
3. Complete immobility of the toes, except the great one. The natural mobility in civilised nations does not exist now in more than about one person in 500.
4. Painful bursæ between metatarsal bones.
5 In extreme cases corns and chafed spots are produced by the squeezing and rubbing together of the pads of the great and little toes.

Kid gloves, though worn continually, never cause bunions, since the kid stretches to the hands; but in the manufacture of boots, especially ladies' boots, unyielding canvas is used to line them, so that the leather is prevented from stretching and showing the true shape and size of the foot. The foot enlarges when bearing the weight of the body, and also towards evening, hence, a boot thus made from a measure taken when the foot is suspended in the air, and in the morning, is too small for the foot in the evening. Women's are generally measured in the air, but men's when they are standing on them. The high heels in ladies' boots, too, will be always causing them to walk down-hill, however level the path may be, thus driving the foot more and more to the front. In a well-made English boot this is prevented to some extent.

II.—*Deflection of the Toes* fall chiefly on the *great toe*, the result of wearing—

1. Boots too narrow in front.
2. Boots (now out of fashion) having the point in a line with the centre of the heel; the big toe, which naturally is in a line with the inner side of the heel being deflected outwards towards the point.

3. Short boots especially. In them the great toe is brought sharply in contact with the end, and, as the tarsus and metatarsus will not yield much, and the metatarso-phalangeal joint will, a deflexion of the great toe takes place outwards, and sometimes downwards. This is the most frequent and worst form. This deflexion of the great toe is the source of great trouble, as bunions occur over the metatarso-phalangeal joint; soft corns on the second, third, and fourth toes, under which it lies, and, worst of all, a total loss of movement in the great toe.

Treatment of the above deformities.—If just begining, keep the toes apart by pads of plaster. Isinglass plaster upon felt is the best. The pad must be worn day and night. Of course bad boots must be left off. The treatment by night is even more important than that during the day, for then especially repair goes on, and the least relaxation in the night more than undoes the good done in the day. Sometimes it has been considered necessary to divide tendons, but these do not produce the deformity; they merely adapt themselves to it. If they are divided, the deep-seated fibrous textures should be divided as well. In the worst cases the great toe has to be amputated.

Deformities of the Second Toe.—It is doubtful whether these deformities are due to the wearing of bad boots, as sometimes they are hereditary. There are two kinds—

1. The last phalanx may be turned straight downwards, and is then called the hammer toe. It is found occasionally in the other toes.
2. Extreme flexion of the first phalangeal joint. it is certainly hereditary, for it is frequently found in children who have never worn boots, but it is greatly aggravated by wearing boots, since corns form on projecting parts.

In the old classic statues the second toe projects beyond the first, but that natural type of foot is going out. The great toe seems now to project beyond the second. In people with flat feet this is always the case. Some say that the deformities of the second toe are congenital, but it is probably an early produced disease of the fibrous textures.

Treatment.—If beginning in a child you may cure it by applying a wooden splint below, and keeping it bandaged night and day. When deformity is more advanced divide the flexor tendons, and apply a splint below, or a splint on the dorsum of the foot arranged with loops. In later life it is impossible to cure the deformity, but amputation should be done at the point of extreme flexion, not at the metatarsal joint.

The third and fourth toes have no special deformities. They only suffer by being lifted up or pushed down.

The little toe sometimes is almost suppressed from atrophy resulting from pressure.

Boots then may, besides other diseases, cause deformities which lead to the hardening and contraction of the fibrous structures a round the joints.—*Students' Journal and London Hospital Gazette.*

ON INCONTINENCE OF URINE IN CHILDREN.

By Henry Kennedy, F.K.Q.C.P.,

Ex-Physician to the Cork Street Fever Hospital, Dublin.

Dr. Kennedy began by observing that though the affection could not, in one sense be considered serious, it, at any rate, always entailed a great deal of annoyance, and was ever most difficult of cure, and in some rare cases continued on even into adult life, so rendering the individual miserable. In many cases too, boys had to be taken from school on account of it, and this made it a very serious infirmity, for very obvious reasons. The author did not bring forward the subject with the hope of offering anything new, but in order to elicit discussion.—Before alluding to the affection itself, he wished to draw the attention of the meeting to the marked differences to be observed amongst children at and after birth, and these differences went on even into childhood. They were seen in the external parts of body, and also in the internal functions. Some had very sensitive stomach and bowels, others the contrary, some swallowed badly; some had their teeth very early, and others late; some walked much sooner than others; and when they were old enough the variety in the modes and powers of speech was very striking. It was known to all, too, that girls spoke earlier than boys, and that stammering was much more common amongst males than females. Now, all these differences, the author went on to observe, must arise from some inherent cause, and when they amounted to what would be called a defect, it was most probable they arose from some want of harmony in the functions of the nervous system. When a child was born with one side of the body weak, or atrophied, it was known that this was due to a want of development, or even an absence of some portion of the nervous centres. So the author took it to be—though in a very much mitigated form—in the affection of which he was about to speak. It was certain it could not be due to any abiding cause, inasmuch as all children, it might be said, grew out of it. But the author considered that the affection was as close to real disease as it could well be without being it. He drew attention to the fact, that while the incontinence of urine was a comparatively frequent affection, the bowel was not affected with it. Still, this did occasionally occur, and he had met instances of it. He also noticed the variety that exists, even amongst adults, as regards the performance of the functions of the bladder; and hence he concluded that if such were known to exist amongst them it might *a priori* be supposed to exist amongst children, where the several functions could not be supposed to have attained their maturity. The author went on to state that the affection was probably more frequent amongst boys than girls. But this point required further confirmation. In one remarkable case of which he knew, the infirmity had continued up to womanhood, and then the patient married, though under such peculiar circumstances. The effect, however, was that from that moment she was cured.

It was worth keeping in mind that the affection was not confined to the night, at least, in some instances; there were exceptions, and he had seen one very recently. The boy was 10 years of age, and small for his years. This case was unfortunately lost sight of. A case of this kind was of course more serious than where the affection was confined to the night. As to the infirmity itself, the author said it required no description. The child wet the bed once, or it might be, as often as three times in the same night, and this, as all knew, constituted the complaint. There was a feature about it, however, that was worthy of notice in connection with its natural history, and that was, that it frequently intermitted—that is, the affection would suddenly cease for a period, and then return, or it would lessen in intensity for a time. When the question of treatment was discussed this point was not to be forgotten, for that might be set down to treatment, which, in reality, was but a feature in the affection itself. The treatment was divided into surgical and medical. Amongst the former was included the plan of Sir Dominic Corrigan, which the author thought could scarcely be successful, and might possibly lead to the prepuce itself being turned into a receptacle for the urine, and in confirmation of this he mentioned a case, the particulars of which the late Sir Philip Crampton told him, where the tying a thread round the prepuce for the purpose of keeping in the urine had led to the formation of a new bladder. If any plan of this kind were now tried the author observed that the pressure should be applied at the root of the penis, and, further, it would be much easier of application nowadays than formerly, inasmuch as vulcanized india-rubber could be used, a ring of which would probably answer the purpose well. It was evident, too, that it would require medical supervision, but could, of course, be only applicable to boys. A very old plan, with the same object in view, was the stripping on a bit of bougie, so as to compress the urethra. In one case where the author tried this plan it had failed; and like the last plan it also required close watching and attention. Of the medical means employed, blisters to the sacrum must not be forgotten. There could be no doubt, the author said, this means had succeeded. Of two cases in which he had employed it, it failed in the first; but in the second it was more successful, and stopped the infirmity for four months. The patient was at this time a girl of 8 years of age, and the mother was advised to wait till she became a woman, and she was told the infirmity would cease. Strange to say, this girl was brought to the author by her mother this past week; but, though menstruation has been established, the infirmity is as bad as ever. She is now 10 years of age. Whether she will be cured remains to be seen. The regulation of the quantity of fluids taken, and the time, the author considered of much moment; and he particularly advised against the use of tea. There was one measure, too, he thought of the greatest consequence, and that was the teaching the patient, when such was possible, the habit of retaining the water as long as possible in the day time. By this means the sensibility of the bladder was lessened, and good was effected. The author observed that this plan was opposed to the one of taking up the child at night, which, though it diminishes the unpleasant effects of the infirmity, had no tendency to cure the complaint, but, as he thought, the very contrary. To two medicines only did the author allude, hydrate of chloral being one, and belladonna the other. There was already some evidence that the former had been of service, but it was not sufficient yet to establish its value. The latter, as a whole, had proved the most valuable drug yet used, and had cured a good many cases. Of two cases in which the author gave it, it cured the first, a boy of 3½ years of age. In the second, a boy of 11, it has bettered him a good deal; but circumstances had prevented as full a trial of the drug as was desirable. In speaking of belladonna, the author adverted to the remarkable fact that children bore it in very much larger doses than adults. By gradually increasing the dose he had given it in very large quantities. It had rarely dilated the pupils, and then only for a short period. In prescribing it this point was not to be forgotten. There could be little doubt that the internal organs, especially the kidneys, were so active in childhood that the poison was very rapidly eliminated from the system. —*Dublin Medical Press.*

THE EYES AND SPECTACLES.

An old writer, living before the days of illuminating gas and kero-sene, remarks that the "first sign of the need of spectacles is a tendency to bless the man who invented snuffers." In this age we should say that the first sign is to find one scolding about the publisher of his daily newspaper, who is charged with filling his columns with type growing every day more diminutive and indistinct. When a man or woman reaches the age of forty-five or fifty, it is generally found that some aid to natural vision is required. The discovery of this want is very liable not to be made soon enough, and the eyes suffer greatly in consequence. There is also a foolish pride which prevents some people from adopting spectacles after the discovery is made. There is no truth relating to vision more important, and which therefore should be more clearly understood, than this: that in every case of defective eyesight, whether it proceeds from advancing age or from congenital causes or from accident, artificial aids should be resorted to without delay. The tendency is in all, or nearly all cases towards irreparable injury, when this aid is withheld. It is true, bad or ill-adapted spectacles may and do cause injury, and so do improper medicines, or injudicious food or regimen. If proper care is used in selecting glasses, and the right ones are obtained, they strengthen vision, and the vigor of all the functions of the organs concerned in the phenomena

of sight is increased. A child discovered to be "near-sighted" should be promptly furnished with appropriate glasses, and they should be selected if possible under the advice of a competent medical man or optician. In the case of persons who have passed middle life, as soon as it is noticed that the best artificial light is sought, of that letters grow apparently smaller or less distinct, or that the near point at which one can see distinctly is more than eight inches from the eye, the time for spectacles has arrived. In adopting them under these circumstances, we place an artificial lens outside of the eye to supplement the natural change of that within the eye, and by so doing, we add to the power and normal action of the whole optical apparatus. The use of spectacles enables the eyes to work comfortably without fatigue; and they should always be strong enough to effect this object. It is difficult to give any rules for selecting glasses, as there are many exceptions to be considered. The natural changes in vision come on gradually, and glasses need to be changed to meet this modification as age advances. At first the change is slight, and may not for several years after it commences be so marked as to become positively annoying. In the early periods of decay of sight, glasses having a focal length of 60 inches will usually suffice; later in life they must be changed for those of 40 or even of 10 inches.

Glasses of a focal length of 60 inches will require one to hold the object looked at at a distance of 14 inches. If at 14 inches the letters of a book are seen most distinctly, the focal length of the glasses is usually well adapted to those whose vision is slightly impaired. The distance should be quite accurately measured, as glasses of 10 inch focal length require a modification of the reading distance, of only about 3 inches less. The first spectacles should at first only be used for reading in the evening; and when no longer sufficient they may be superseded for evening work by others, and the first pair reserved for reading by daylight, or for writing, which requires less critical vision, more especially if ink be used that flows black from the pen.

Short-sightedness is a malformation of a somewhat serious nature, as short-sighted eyes are diseased eyes, and they require special treatment. Never allow a child or a friend thus afflicted to fall into the hands of "travelling quacks," or those who make loud claims to optical knowledge. In all large cities there are reputable medical gentlemen who make a specialty of the treatment of eye affections, and they are the proper persons to consult It cannot be too universally known that short sight tends to increase: and that if it increase at all rapidly, it tends also to destructive changes, and therefore it is an affection which requires prompt attention.

Perfection of eyesight is essential to our welfare and happiness, and any one who neglects those precautions upon the observance of which its preservation depends, will find cause for deep repentance in later life. Young men and young women who suffer themselves to fall into the habit of reading by fire-light, or at a window by the waning light of evening, or at a considerable distance from lamps and gas-burners, are guilty of acts for which they must suffer. Parents should promptly interfere to prevent the formation of such dangerous habit.

In the use of glasses, the tendency is towards those which are held in place by spring pressing upon the nose. This form is convenient, and will do very well for purposes other than for reading or writing, when prolonged use is required. The nip upon the nose is often painful, and creates uneasiness; and beside, the focus is liable to become disarranged. For these reasons and others, the glasses held in place by bows passing behind the ears are the best and safest for reading or study. The lenses should be of the best construction, and pure crown-glass affords a material better than "Brazilian" or other "pebbles." Avoid purchasing of any optician who claims that his lenses are constructed of pebbles, or crystal stones. If his claims were not false, he should be distrusted. The frames of spectacles should be of blue steel, light, strong, and perfectly fitted to the wearer. They should be kept perfectly clean, and this should be accomplished by the use of soft wash-leather, and not by linen handkerchiefs, which are apt to scratch the lenses by the small particles of silicious or other hard substances which they hold.—*Boston Journal of Chemistry.*

ON HYSTERIA AND AMENORRHEA.

In a paper read before the Dublin Obstetrical Society, Dr. F. T. Porter said:

I consider hysteria to be a most unsuitable expression for a group of disorders by no means confined to one sex. The epoch of puberty bears a strong resemblance to that of dentition; in both there is an increased development of the nervous centres, and a specialized evolution of nervous force. The so-called hysteria is referable to the increased nervous activity which, during puberty, is common to both sexes.

Practitioners are not alive to the advantage of observing the phenomenon of puberty. It is probable that, owing to nervous disturbance, as many organic diseases are induced during the accession of puberty as there are during that of dentition.

I have not much faith in the drug-treatment of an emotional disorder like hysteria; but I prefer the valerianates, hemlock and lupulus, to the bromides. I consider the bromides to act most injuriously in hysterical cases. Their exhibition tends to derange digestion, to deprave the blood, the weaken the heart and to retard menstruation. The devotion with which many practitioners adhere to the use of the bromides is a melancholy instance of the evil effects

of fashion in medicine. When spinal tenderness coexists with hysteria, I generally employ Corrigan's iron, with considerable success. Much depends on the proper regulation of patient's habits. Temperate meals, early raising, cold bathing, and active exercise in the open air are indispensable elements of treatment. The treatment is more moral than medical. The morbid excitability of the emotions, so common at the present time, is a fact patent to every observer; and the influences in this respect of sensational literature, long engagements, and a host of other social evils, ought not be ignored. An ancient sage stated that all disease proceeds from the mind, and this is fully exemplified in the case of hysterical persons. Many writers consider the unmarried to be more liable to hysteria than the married; but, so far as my humble experience enables me to form an opinion, the reverse is the case. The most aggravated cases of hysteria I have had to treat occurred in married women. Family cares, pecuniary anxieties, prolonged lactation, and other causes incident to married life, act as injuriously on the nervous system as any evils imputed to celibacy. Before alluding to amenorrhea, I propose eliciting a few observations on the nature of menstruation. Menstruation corresponds the period of "rut" in the lower animals. The question naturally arises, why is the period of "rut" not accompanied by a sanguineous discharge, as is the case with menstruation? The theory that the menstrual discharge is surplus blood is a mere assumption. Dr. Ramsbotham looks upon the discharge as the rudiments of the deciduous membrane; but why, may I ask, is the discharge absent in all the deciduous mammals below the human female? The fact of the absence of this sanguineous discharge in the lower animals, coupled with the fact that it is scanty in women in the savage state, has induced me to form the opinion that its existence is, in a great measure, due to causes incident to the long-continued effects of civilization. It is to be regretted that the question of the final cause of menstruation has not been elucidated; it is a question pregnant with physiological interest.

There can be no more fertile cause of delicacy than the premature approach of menstruation. Such an event often engenders disease by drawing off the vascular and nervous energy so essential to the consolidation of the functions of nutrition and growth. The premature accession of menstruation is certain to be followed by the early disappearance of the function. The immediate cause of functional amenorrhea is, I conceive, an inability of the nervous centres to stimulate the ovaries. This inability may be owing to the retention of excreta in the blood. The suppression which often follows renal congestion after scarlatina will serve as an exemple of this cause. It may result from too little vascular pressure as in anæmia, or too great pressure; as in plethora. It is on the two latter causes I wish more particularly to dwell. In treating these conditions, practitioners neglect to bear in mind the influence of the sympathetic system on the blood-vessels, and they generally address their treatment to the blood itself. In plethora the sympathetic system is depressed. This is evidenced by the increased animal heat, contracted pupil, and vascular relaxation. I consider that in such cases belladonna is a most efficacious remedy. It has been used with success on the Continent, but I am not aware of any practitioners who prescribe it in this country for amenorrhea. I have often used it in my own practice with considerable success. The late Dr. Graves used belladonna to relieve the cerebral congestion of typhus. It was that circumstance which induced me to employ it in the treatment of plethoric amenorrhea. In anæmia the sympathetic system is in a state of tension, which is evidenced by the dilated pupil and diminished animal heat, and in such cases I generally administer small doses of opium before resorting to the ordinary remedies. Hemlock is beneficial when opium cannot be borne. It is probable that the good effects of hemlock in splenic tumors are owing to its effect on the innervation of the smaller vessels. Anæmia, like plethora, is not, I conceive, so much an alteration in the condition of the blood, as it is an alteration in the innervation of the blood vessels themselves. It is not my intention to touch on the local causes or treatment of amenorrhea. I will not notice the subject further than to say that local conditions, as a rule, depend on constitutional causes, and that consequently (but especially in the unmarried) all means of a constitutional nature should be resorted to before local measures are adopted.

A CLINICAL LECTURE ON INTERNAL HÆMORRHOIDS.

DELIVERED AT CHARITY HOSPITAL,

By ERSKINE MASON, M.D.,

ADJUNCT PROF. OF SURGERY, UNIVERSITY MEDICAL COLLEGE.

To-day, gentlemen, I show you some cases of internal piles, and it is for the relief of these that you will be more frequently consulted than for those that are external, and which we studied the other day. Very much that I have told you about external piles you will find equally applicable to those that are internal. For instance, you will find that a majority of these tumors are chiefly composed of varicose hæmorrhoidal veins. That the causes which produce one also give rise to the other. That very many of the symptoms are common to both; and the means employed in the treatment of one is often as applicable to that of the other. Notwithstanding all this, you will learn that they often differ from the external variety in very many respects. First as to the locality of these growths. They are always found to arise above the sphincter, though often they are found to project below the anus, and if you are careless in your examination you may mistake them for the external variety. As you saw that the external tumors presented different appearances as to color, size, and consistency, so you will find to be the case with the class we are now studying.

These tumors, at times, are found to be arranged one above the other, as in rows, and if your exami-

nation be superficial, some may escape you; and the most certain way of avoiding this is always to have the patient take an enema of warm water, so as to force the piles down just before you operate, or else to resort to the over distention of the sphincter, an operation which I shall presently shew you in a case of fissure. The size that some of these hæmorrhoids attain to is often very great. Here you see in this patient, a single tumor the size of a pigeon's egg; in other cases you will see several of these protruding through the bowel, and all equally large. At times they will be attached by broad bases to the side of the bowel, presenting a blue or purplish appearance. Again they may project along the side of the bowel, like distinct columns; their surfaces are usually smooth and glistening, and this class are chiefly composed of veins and infiltrated areolar tissue, covered over with mucous membrane. At times, however, an artery of some size is found in these tumors. Another variety you will often observe projecting from the anus (and you see it well shown in this man, who also has a tight stricture of the urethra, which, no doubt, is the cause of his piles). It is a tumor not at all blue, but of a bright florid appearance, soft to the feel, and always moist, and which, you will see, readily bleeds upon slight examination; and you notice that the blood which escapes is not at all venous in character, but of a bright arterial hue. Into such a tumor as this we have the capillaries entering largely. Higher up in the bowel, above what is termed the internal sphincter, you will meet at times tumors that are sessile, red like a strawberry, which readily bleed when touched, and which are composed chiefly of arteries. I might separate these growths, into still other classes, but I think this will suffice for all practical purposes, and you will remember them better than if the division was more minute, and then I have now the opportunity of illustrating just these varieties. There is, however, a condition of the bowel which is always spoken of under the term hœmorrhoid, though it consists of no tumor, but nevertheless gives rise at times to copious hæmorrhage, and is, I believe, always associated with some distinct hæmorrhoidal growth. You will observe at times, in examining the bowel with the speculum, little vascular spots of the mucous membrane, the slightest touch of which will cause an oozing of bright arterial blood. Whether the mucous membrane covering these vessels which gives rise to the bleeding is simply changed in character, or whether it is broken, I have in several examinations been unable to determine.. All these varieties you will often observe in the same patient, and some have regarded many of them as only changes occurring in the same original tumor, either from long continuance of the disease or as the result of some special form of treatment.

The cause of these internal growths is precisely that which we have seen give rise to the external variety, and therefore it is, you so often observe both classes of tumors in the same individual.

The symptoms that denote the existence of this class is in many respects also like those belonging to the external group. The first system which perhaps attracts the patient's attention will be loss of blood while at stool, and for this it is that he often seeks your advice. This woman for example will tell you that she frequently loses large quantities of blood in this way. The amount which escapes in this manner varies from a mere tinge to many ounces, nor does it come away only at the time just mentioned. While walking or riding patients are often subjected to this hœmorrhage, which is very distressing; and I have known it to be so profuse as to cause faintness in a man that was otherwise strong and hearty. The amount that patients will tell you that they sometimes lose is very remarkable. This hemorrhage, when it recurs frequently, will soon debilitate the strongest person, and induce a long train of symptoms. It is from this symptom these tumors derive their name—hæmorrhoids. When they have increased in size they give rise to tenesmus, bearing-down pains, weight in the bowel, and pains in the back and down the thighs; every one of those symptoms this man has given you. At first these tumors only protrude while at stool, and then return within the bowel, or else are returned by the patients themselves. After a while, the sphincter becoming relaxed through the pressure, they are constantly protruded, or, as the patient will tell you, their "piles are down." So many and so large are the tumours, as often seen while in this condition, that by their weight they have brought down some of the mucous membrane. Indeed such conditions have been taken for the prolapsus of the rectum. But be sure that you do not make that mistake, for prolapsus of the rectum is quite another thing. Only a short time ago a patient came to consult me for a prolapse of the bowel, and for which he was wearing an instrument "to keep the bowel in place." Upon examination, however, there was no sign of prolapsus, he was only suffering from hæmorrhoidal tumors, which at times came down and annoyed him. The instrument he was wearing only served to keep the tumors in a continual source of irritation.

At times these tumors when they are protruded, become grasped by the sphincter; this causes the lower portion of them to swell, and their return for a time impossible, unless proper assistance is at hand and as a result we may have a case of inflamed piles. So tightly are they constricted at times that a sloughing of the parts has taken place, and the patient has become cured through this accident. More frequently, however, it but leads to ulceration and sometimes to abscesses in the tumors, and a train of very painful symptoms, in which the neighboring organs, such as the uterus and the bladder sympathise. From the presence of these tumors defecation becomes not only painful, but often very difficult, and we will also find that there is a mucous, perhaps a purulent, discharge from the anus; that troublesome symptom of which we have spoken in connection with external piles, itching may be also present here, though the external growths be small. When these piles become inflamed, not only do we have local symptoms to combat, but we find also great constitutional disturbance, as high fever, furred tongue, frequent pulse, and great rest-

lessness. This condition will often continue for several days before your patient becomes relieved.

When internal piles are neglected, and have continued for a length of time, you will find the general condition of the person becomes affected. They are apt to become dyspeptic, despondent, bowels more and more constipated, and from constant losses of blood they become pale and haggard. Indeed, we have seen persons that at times are completely incapacitated from attending to their business; and, strange to say, that many will continue to remain great sufferers, and will resort to all kinds of nostrums rather than submit to an operation, which alone holds out any prospect of relief.

Our treatment consists in hygienic, medical, and surgical means, as in the external variety, and the two former means are alike in both. The aperients that are the most valuable are the salines, in combination with sulphur, though I have lately seen a pill of taraxacum and aloes act very kindly. I know aloes is regarded by many as deleterious in cases of hæmorrhoids. This fact has, however, been doubted by some, and Mr. Brodie in his surgical lectures states he has never seen the ill effects arise from this drug that is popularly ascribed to it. It may follow when large quantities of the drug is employed; but this will be found also true of many other cathartics. In the use of such medicines we never desire to produce violent cathartic action—merely to assist the bowels to regular action. Medical treatment will suffice but to palliate in the majority of these cases, or act as an adjuvant to the more radical means, when this affection has been of any long continuance. I know very well that there are hosts of persons suffering from internal piles who never resort to a surgical operation, and I may say are never even counselled to do so by their medical advisers, and yet for long intervals maintain themselves in comparative comfort, and free from very great annoyance. Yet, to accomplish this, great numbers are constantly watching themselves, and may be said to be constantly more or less under some sort of treatment, whereas a comparatively simple operation might suffice to give them more radical relief.

I take it that in those cases where patients are losing large quantities of blood, and in those where the growths of long standing and constantly protrude, or excrete, or cause great pain and become a trouble, or a source of annoyance, or detriment to defecation, or are in any way a serious source of annoyance, or affecting the general health—all such other things being equal, viz., there being no disease present that would contra-indicate an operation—are suitable cases for surgical interference. You, of course, would not think of operating upon a woman who is in the condition of the woman I have just shown you, she being pregnant; nor on this man, who is suffering from a tight urethral stricture; and yet both these patients have and are suffering from internal hemorrhoids. In these instances we do all we can to palliate until after the exciting cause has been removed; then, if they are still the cause of trouble, your operation can be resorted to with every prospect of success. Should your patient be the subject of a displaced uterus, or of some vesical trouble, in these instances as in every other, seek first the removal of the exciting cause before you resort to an operation.

The modes employed by surgeons for the removal of these tumors are nitric acid, actual cautery, ligature, and the écraseur: at least these are the modes adopted at the present day, though I believe the latter instrument is now very generally and very justly discarded in these affections. Some years ago these tumors were cut off with the scissors, and either left alone or else the wound touched with the hot iron, or the wound brought together by suture to promote speedy union. So serious and even fatal was the hemorrhage resulting from such a course as this in many cases, that this mode of dealing with these internal growths is no longer employed. We will now consider these different appliances in the order I mentioned them. I believe it was due chiefly to Dr. Houston, of Dublin, for first bringing favorably to the notice of the profession nitric acid in the treatment of this affection. Since that time it has been highly extolled by many writers, and again severely deprecated by others, as not only of no avail, but actually very harmful. I think we may find a reason for both the opposing views not only in the manner in which it has been used, but to the class of tumors to which it has been applied. At first, no doubt, it was applied, and may be yet by some, indiscriminately; and as a result, failure is bound often to occur—and the remedy receives the blame, not the operator. If you wish, therefore, to see its favorable action, you must select your cases and apply it in a proper manner. Its use I think, should be confined solely to those vascular spots of mucous membrane which I have described as sometimes seen in connection with other tumors, and to the small, florid, sessile growths which so readily bleed upon the slightest touch. If you but confine its use to these cases, I feel sure you will meet with happy effects: while, if you apply it to the other tumors, you will often be disappointed. There is no objection to using this, at the same time you treat the larger growths by other means, as I have often done, and with the happiest result. The acid you use should be of the strongest kind, and the parts should be well brought down into view by the means I have described. Then dry the parts and touch them lightly with a piece of wood dipped in the acid, taking great care that no acid comes in contact with surrounding mucous membrane. You then oil the parts and return them; often one application will suffice, if the growth be extremely small, or you may have to repeat the operation after a little interval. The pain attendant upon this is often but slight, and of short duration as compared to other means; and with very nervous patients not so terrifying. The acid acts by the infiltration of the parts it produces, which closes the vessels, and, as a result, the tumor shrivels.

The next operation to which I call your attention is that by means of the actual cautery, and which I have frequently made use of in this hospital, and the application of which I shall now show you.

The use of the actual cautery in these affections is a very old one; but in more recent years it was re-introduced by the Dublin surgeons. Its great advocates among English surgeons are Mr. Henry Lee, of St George's Hospital, and Mr. Henry Smith, of King's College Hospital, and the operation is now chiefly done with the aid of a clamp, suggested by the latter gentleman. It is the instrument I now hold in my hand. The claims that have been advanced for this operation were that it is freer from danger than the other operations; recovery was more rapid, that it is less painful, and, I think, it has also been said to be free from hemorrhage. I must tell you, however, that cases have been reported, where not only complications have happened, but death also has followed from pyæmia. With respect to pain, I have seen patients complain severely for some time after its use; and as to hemorrhage, I have seen that follow in several cases, and where I have taken great pains, to follow the rules laid down for its use. Recovery, perhaps, may be more rapid than after the ligature, though my employment of it, perhaps, has not been frequent enough for me to speak authoritatively on this point. I regard it, however, very favorable in some cases; and not one to be treated with such scorn as a recent writer has seen fit to do. In our venereal ward we frequently have had women coming in suffering from hæmorrhoids, at the same time having chancroids both of vulva and anus. Here the clamp and cautery I have almost always used, there being less danger of the resulting wound becoming inoculated than if the ligature or écraseur were employed. You apply the clamp and cautery thus: seizing a tumor with forceps or tenaculum, I drag it down, and grasp it around its base with a clamp and strongly compress it—the pressure may be maintained by means of this screw—then, with a pair of curved scissors, you clip off the pile a little distance from the clamp, so as to leave a stump over which an iron heated to a dull red heat is drawn. This is for the purpose of producing an eschar, and thus sealing the vessels: after which you slowly open the clamp to see if there be any hemorrhage. If bleeding occurs, another application of the iron is required. You must bear in mind that in the use of this means you should never try to hurry the operation by grasping more than one tumor at a time; if you do, you will be more liable to have hemorrhage.

I shall now show you the use of the ligature as applied to piles. This is used far more frequently than any other means, and is, I think, very justly regarded, almost universally, as not only the best, but as safe a mode of operating as we can employ. Mr. Allingham, in a recent work, has cited many hundred cases as having been operated upon in this way, both in private practice and in an hospital specially devoted to diseases of the rectum, in which the number of deaths following have been extremely few. Some have even gone as far as to assert that it may be used without the slightest risk of serious trouble. But I think I have often told you that no surgical operation, however slight, can be truly said to be absolutely free from danger in every case. The ligature strongly recommends itself both from the facility of its application, the great safety, and the radical relief which so frequently follows. You will hear of some who are said to tie off piles without pain. In your practice you will find few patients, I think, who will not suffer more or less for a short time after this operation; though in this respect you will find great differences in individuals. In the use of the ligature you do not wish to use a large one; if it does not give rise to more pain, it certainly is longer in coming away. A moderately fine, waxed, silk ligature, or what I like as well, is one of linen, such as I am about to use. I prefer this on account of its strength. You readily procure it at any of the sewing machine stores. Various methods have been recommended for its application, and some with respect to lessening pain. Bodenhamer, a writer on "Diseases of the Rectum," makes it a point never to draw down the tumor with the forceps, but simply applies the ligature around the tumor a little from its base, so as to avoid including the mucous membrane that lines the bowels. I have tried this, but have not found it so free from pain, as I was led to suppose might be the case when reading the description of his operation. In the ordinary operation you seize the tumor and drag it down, this gives you a clear view of the part you wish to ligate. You then surround the tumor with the ligature (and I do not think it necessary that the ligature should surround the pile *close* up to its attachment to the wall of the bowel). The ligature is now to be tied *tightly* with two knots. Cut off the ligature a little distance from the knot; and in some instances the tumor, a little beyond the ligature is cut off, and the parts returned into the bowel. The great benefit, I think, you derive from not tying your ligature *close* up to the base of the tumor and in not dragging them down too forcibly, is that by thus not including the coats of the intestine you thereby avoid a troublesome contraction of the bowels, which I have seen follow in a case where several tumors were thus ligated.

The method that Mr. Allingham has recently described as the one practised at St. Mark's Hospital, I have of late frequently performed, and regard it with great favor. It consists in separating the pile, with the scissors, from its attachments to the muscular and other tissues of the bowel beneath its mucous membrane. Your cut is carried up parallel to the wall of the bowel for a little distance—perhaps an inch or more—and the neck of the tumor, so to speak, is then ligated. In this way you tie little more than the vessels which form it; and there being less tissue for the ligature to separate, it comes away sooner. The vessels running parallel to your incision, you are not likely to wound them, and if you have any bleeding point, it is readily seen and should be tied at once. The wound you make being an incised one, readily heals. This operation I now proceed to show you. After this operation of the ligature your patient should be confined in bed for at least a week, and should not go about for some days further. The ligatures will usually come away from the fourth to the sixth day; and the bowels

should be confined for the first three or four days. Should they not move before this, a saline may be given. I am in the habit not only of having the anus frequently bathed with warm water, but also with a small syringe, having the parts so to speak, irrigated with tepid water containing opium and a little carbolic acid. It not only adds to the cleanliness, but subdues the pain your patient may suffer. Immediately after the operation a pad of picked lint over the anus, and held in position by a tight T-bandage, will also prove serviceable in subduing pain. You will find some patients able to go about much sooner than others; indeed, I have known them to walk about in a day or two after the operation; but this is wrong; they should remain quiet some days after the ligatures have come away, in order that the ulcer, which necessarily is present after the separation of the pile, should heal kindly. After all these operations you must remember the bladder, for not unfrequently will you be required to use the catheter for a day or two after the operation. The operation by means of the écraseur, I do not intend to show you. It is dangerous, as liable to give rise to stricture, and I do not think it should be resorted to when we have safer means at hand.

The accidents that have been known to follow operations upon hæmorrhoids are tetanus, pyæmia, and hemorrhage. With respect to hemorrhage, when the operation is done properly, I do not think it will often be serious. About the means employed to arrest bleeding after operations upon the bowel, I must speak to you of at another time. Tetanus and pyæmia are rare accidents.

Will hæmorrhoids ever return after an operation, will be a question you will often be asked. That they will in some instances, is true, especially if a patient neglects himself, and thus brings about the condition which originally induced his piles; whereas if he is careful, he may remain clear of them. Should they return, there is no impropriety in repeating the operation. There are some people who seem to be peculiarly pre-disposed to a varicose condition of their veins, and that, too, at a comparatively early period of life. In this class, I think you will find a disposition to the return of hæmorrhoidal difficulties under any treatment that may be used.—*New York Medical Record.*

DISTRESS AFTER EATING, AND DIARRHŒA.

This is a very common occurrence. There are two conditions upon which diarrhœa and distress after eating depend. They may depend upon a hyperæmic condition of the gastro-intestinal mucous membrane, consequent upon irritation produced by indigestible food, or diarrhœa may be caused by ulceration of the intestines. When diarrhœa or distress after eating occurs in the earlier stages of the disease, it is most probably due to hyperæsthetic condition of the mucous membrane, and a hyperæmic condition, of which the diarrhœa is but an effort to relieve the engorged mucous membrane. Simply arresting the dischages from the bowels is not well. Produce several watery discharges without pain, and the engorgement will be relieved; and then opium and astringents may be used with benefit if necessary. As a rule, opiates and astringents are to be resorted to only as secondary measures.

A very efficient prescription to be administered under these circumstances is:—

℞. Sulphate of magnesia,
Tr. opii camph..... aa ℥i.
Aquæ..... ℥i.
M.

S. Wineglassful every two or three hours, until two or three free watery stools are produced. To prevent recurrence, regulate the diet. When the bowels are irritable, beef-tea is apt to purge. Milk, farinaceous food, yolks of fresh eggs beaten up with wine and sugar. If these do not agree with the patient, raw beef scraped fine may be tried; or it may be just heated through, and then scraped fine and seasoned with pepper and salt; and in some hospitals vinegar is also allowed.

An exceedingly serviceable remedy to be regularly administered in these cases of disturbed digestion, irritable mucous membrane and diarrhœa, is *lacto-phosphate of lime.* The article must be fresh, and must be kept in a cool place. Unless these precaution are taken, the remedy itself will prove purgative.

Pepsin combined with *muriatic acid* is an excellent assistant to digestion under these circumstances; fatty meat, thoroughly boiled pork, fresh butter; perhaps cod-liver oil.

Thoroughly boiled pork is most excellent for children who suffer from summer complaint. The diarrhœa of phthisis may occur from simple thickening of the mucous membrane of the small intestines. When the diarrhœa depends upon ulcerations in the intestines, the regulation of the diet is an exceedingly troublesome undertaking. Resort should be had to those articles of diet which will give as little trouble as possible in the *latter* stages of the digestive process. If the ulceration is in the small intestines, cod-liver oil and the hypophosphites may be of great service. If the ulceration is in the large intestines, but little more than temporary relief can be expected. The presence of blood in the discharges is regarded as evidence of ulcerations in the intestines. The seat of the pain, tenesmus, etc., is generally sufficient to distinguish ulceration of the large intestines from ulceration of the small intestines.

The most relief to be obtained from *drugs* is when the diarrhœa depends upon ulceration of the small intestines. The treatment adopted for the diarrhœa which depends upon a condition of hyperæmia is not of much service in this condition.

Among drugs sub-carbonate of bismuth is regarded as one of the best remedies that can be

employed. It may be given in doses as high as ʒ i. t. i. d.

℞. Bismuth subnitrat..... ℥ i.
Morphiæ sulph..... gr. i.
M.

Div. in pulv. No. xij.
S. One every four, six, or eight hours. p. r. n.

Sometimes benefit will be derived from the use of mineral waters. Water from the Rock Ridge limespring of Virginia is the *best* that can be employed. The water contains lime and iron, and is astringent and tonic. Of this ℥ ij. to ℥ iv. may be taken every three to six hours. It can be taken clear or with other water.

Oak Orchard water is regarded as very serviceable in the treatment of chronic enteric difficulties of any kind.

In the latter stages of the diarrhœa of phthisis, especially when the large intestines are the seat of ulcerations, *opium* is the chief remedy to be relied upon. When given to relieve pain, hypodermically or by suppositories, it is much less liable to disturb the stomach. Suppositories made of *gum opium* alone are much more efficient than when the opium is compounded with other substances.

Salicine, in ten-grain doses t. i. d., has something of a reputation in the treatment of diarrhœa of phthisis. The remedy may be given in divided doses, and administered more frequently if desirable.—*New York Med. Record.*

TREATMENT OF CEREBRO-SPINAL MENINGITIS.

Dr. Dowse, of the Central London Sick Asylum, after giving a good account of the etiology, symptoms, and post-mortem appearances of this disease, as it effects the base of the brain, observes that there is no disease requiring more constant watching or careful medical interference than this. He has seen an acute meningitis and myelitis treated with those drugs which produce congestion; for instance, opium and strychnine. Nothing can be more productive of harm than such treatment in the first or acute stage.

1. It has to be considered how to relieve the vessels of the cord, and to equalize the action of the vasomotor system of nerves. Nothing appears to be of greater service in effecting this than the ergot of rye, and belladonna. The former he has prescribed in decided doses, such as half a drachm of the powder every four hours; and the latter he has applied to the spine in the form of a belladonna paste, made by mixing the extract with one-third its weight of glycerine.

2. To check the reflex vomiting, small pieces of ice must be swallowed, not sucked, as the full effect of its sedative influence upon the stomach is thus obtained.

3. To relieve constipation, Dr. Dowse prefers the administration of a pill of the watery extract of aloes, for the reason that it acts upon the mucous membrane of the rectum and dilates the hemorrhoidal veins.

4. To relieve sleeplessness, both chloral and bromide of potassium have proved ineffectual, but what he found of most service was a suppository of eight grains of the extract of henbane, with four grains of the extract of conium.

5. One essential practical point must not be forgotten—namely, to keep the paralyzed bladder constantly free from urine. It is not sufficient to draw off the water night and morning, which is the course usually adopted, but a self-retaining catheter must be kept continually in the viscus.

6. In reference to diet, it ought to be both nutritive and stimulant from the first.

7. There is a stage in the treatment of this disease where quinine in large doses becomes of the most signal value—at that crisis when exhaustion appears imminent; the skin covered with sweat; temparature 102° to 105°: pulse small, weak, and over 120. But more especially is quinine invaluable when rigors supervene, when it never fails to have a good effect. It must, however, be given in ten or twenty grain doses; and, if the stomach cannot tolerate it, must be introduced into the system by the rectum.

8. The abstraction of blood in any manner is not advisable.—*Med. Times and Gaz.*

PUERPERAL CONVALESCENCE.

Dr. Wm. Goodell, Clinical Professor of Diseases of Women in the University of Pennsylvania, contributes to the *Medical and Surgical Reporter* (Feb. 21, 1874) some special hints on puerperal convalescence, as follows:—

Let the physician see to it that his patient has a good getting up, as well from a miscarriage as a natural labour. Lactation should be encouraged, and the first day the diet should be generous. The canonical purge on the third day should be dispensed with: it weakens the body needlessly, and tends to promote the absorption of septic matter. Premature exertion must not be allowed. On the other hand, a recumbent posture ought not to be too rigorously enjoined. I feel persuaded that this tradition of the lying-in chamber does more harm than good, for nothing relaxes muscular fibre as a confinement in bed. In my experience, women feel stronger on the fifth day after labour than they do on the ninth or fourteenth, if kept in bed. Among the ancient Greeks, those models of physical strength and beauty, the women took a bath on the fifth day. That this was also a custom of the Romans is evident from a play of Plantus, entitled "Truculentus, or the Churl." Since labour is in general a strictly physiological process, there can be no sound reason why a woman should not sit up in bed, or even slip into a chair, whenever she feels so disposed. These are not idle phrases, but the conclusions of a long and well-sifted experience. Such movements excite the womb to contraction and empty it and the vagina of putrid lochia which may be incarcerated by a clot or by the swollen condition of the soft parts. When, therefore, the lochia are offensive, these upright positions should be insisted upon, as being, in fact,

better deodorants than any detergent vaginal injections. By equalizing the circulation and by increasing its force, they also tend to lessen the passive congestion of the womb as a whole, the engorgement of the placental site, and especially that blood-stasis kept up by the dorsal decubitus in its now thickened posterior wall, which is, in my opinion, a very common cause of posterior displacements.

The prolonged use of the obstetric binder is another factor in the production of female complaints. The binder may be used for the first four-and-twenty or forty-eight hours after labor; for it fills up the void left by the emptying of the womb; it gives a grateful feeling of support; it hinders the occurrence of a concealed hemorrhage, and presents a bar to the ingress of air into the uterine cavity. But when kept on simply for the purpose of preserving the shape, by paralyzing those abdominal muscles which it is intended to strengthen, it not only defeats the object so dear to the heart of every woman, but it weakens the retentive power of the abdomen. It also does harm by crowding the intestines upon the womb down into the pelvic cavity. Again, by forcing backward upon the vena cava and upon the pelvic veins so hard a body as the womb, making it, in fact, the pad of a tourniquet, it impedes the freedom of the circulation in that organ, and greatly impairs the process of involution. Pharaoh could have devised no surer way of overcoming the fruitful health of his Hebrew subjects, than by an edict enforcing the prolonged use of a tight obstetric binder.

The lochia must be watched. If, in the third week after delivery, they still linger on, the inference may safely be made either that the cervix is the seat of unhealed lacerations, or that the process of involution is interrupted; or that both conditions may coexist, for the former usually determines the latter. Astringent vaginal injections or suppositories will now prove to be important therapeutic agents. To this local treatment may be added a constitutional one of iron and quinia, the former according to previously given formulas, the latter in suitable doses, amounting in the twenty-four hours to from eight to twelve grains. Apart from its undisputed tonic properties, quinia firmly constringes uterine fibre, and, therefore, greatly aids the process of involution. Ergot and strychnia are also useful remedies to fall back on; wine or beer must not be forgotten. If, after the puerperal month, pains in the back, leucorrhœa, and other well-known symptoms indicate the presence of some uterine disorder, it is evident that involution has been retarded. The speculum must then be used, and the usual uterine applications made, beginning with the milder ones, for now, if ever, is the time by such means to treat the condition of subinvolution, or to cure other puerperal lesions. If a patient has previously suffered from uterine disease, she should, after delivery, be at once put on a treatment of ergot and quinia. By shortening the excursions of uterine fibres in their alternate contractions and relaxations, these medicines proportionately lessen the diastolic engorgement of the womb. I am not sure but Credé's method of placental delivery, by supra-public expression, acts in an analogous manner. It certainly empties the womb of all clots and squeezes it down to its minimum capacity. Such a patient also needs the timely aid of the forceps. For it prevents that laxness of uterine fibre following a long and weary labour, and hence provokes a more complete involution. But for that matter, no lying-in woman should be allowed to linger on in the expulsive stage of labour, when her physician possesses the requisite skill to shorten it.

TREATMENT OF PUERPERAL CONVULSIONS.

Dr. T. Moore Madden read before the Dublin Obstetrical Society (*Irish Hosp. Gaz.*, June 1, 1874) an elaborate paper on the etiology, prevention, and treatment of puerperal convulsions.

The treatment of puerperal convulsions, Dr. Madden said, must be considered in reference to the state of the patient in each case. Preventive treatment, in relieving the kidneys (cupping over loins, diluents, mild diuretics, especially colchicum), purifying the blood (saline aperients and diaphoretics), and soothing nervous irritability (bromide of potassium and belladonna), was most important. Cold affusion, a remedy recommended by Valescus in 1482, was stated to be one of the most effectual means of shortening the paroxysms. Venesection was of undoubted efficacy, and chloroform, although perhaps overrated, of unquestionable value in some cases. Chloral, opium, belladonna, and veratrum viride, as therapeutic agents in puerperal convulsions, were passed in review; but, it was pointed out that, the primary object in every case should be to deliver the patient as speedily as is consistent with her safety and with that of the child; and in those rare cases in which delivery cannot be effected by ordinary means, Dr. Moore Madden mentioned incision of the os; only, however, as the *ultima spes*. The paper concluded with a detailed report of eight cases of puerperal convulsions, four of which recovered, and four died.

In one of the latter, Dr. Madden had freely incised the os, and delivered the patient of a dead child.

In closing the debate which followed the reading of the paper, the President, Dr. Evory Kennedy, said that no matter how divergent the theories of the speakers might be as to the cause of the disease, he was gratified to find that there was unanimity as to the necessity of bleeding, a mode of treatment, as confirmed by experience, necessary to save human life. He, the President, in his lengthened experience, had never regretted having bled in a single case of convulsions. Chloroform he considered to be a valuable means for lessening irritability, and in allowing the treatment to be carried on at the same time. Dr. Madden's practice he considered sound, with the

exception of using the knife. It might perhaps, however, be occasionally requisite. Caution should be observed in practising forced deliveries in convulsions, as being dangerous to the mother. He had noticed, and wished particularly to draw attention to the fact, that headache was almost invariably a preliminary symptom in pregnant women who were the subject of eclampsia. Cold aspersion was, in his opinion, valuable in lessening the violence of the fit and in postponing the attack.

BROMIDE OF AMMONIUM IN EXCESSIVE MENSES.

The following suggestions are by Dr. J. K. Black, of Newark, Ohio, in the Cincinnati *Lancet and Observer*:

The rational mode of controlling certain excesses of the catamenia should be by aiming to remove the conditions upon which these excesses depend. Sometimes this may be from a mere atony or relaxation of the vessels, sequelæ of inflammation or ulceration, or from an abnormal condition of the blood itself, but more frequently is a too frequent or an excessive flow of the menses due, especially in its inception, to a too great excitation of the vaso-motor nerves. Whenever this is the case, there is no remedy at all comparable with the bromide of ammonium in controlling the morbid condition. When, without any other obvious causes, the blood being properly organized, the uterine surface not in a state of chronic inflammation or ulceration, there is a too frequent or redundant flow of the menses, either fault will readily yield to the proper administration of this remedy. It appears to act by a direct influence upon the vaso-motor nerves of the generative system, whereby excitement and blood determination are lowered and lessened, and so to tend at once to the establishment of the normal standard.

I have so often tested the efficacy of this preparation in non-structural catamenial excesses, that I can speak with confidence of its remarkable powers. No more certainly do I anticipate the arrest of an attack of ague by the administration of quinine than do I anticipate the control of the forms of catamenial excess to which I have referred by the proper administration of the bromide of ammonium.

The other day I visited a young, unmarried lady who had, for years, been subject to protracted and excessive, though regular catamenial flows. Of late she had displayed serious indications of tubercular disease of the lungs, and, in treating her for this my attention was drawn to the old and exhaustive monthly flows. I am not aware that this excess had ever been mentioned to a previous medical attendant, or that any attempt had ever been made to control it. As the flow usually lasted from a week to ten days, and was quite profuse, it appeared very desirable that its duration and amount should be curtailed, in order to preserve the system, under its new danger, against such a source of exhaustion. Accordingly she was put under the bromide, as follows:—

℞. Bromid. ammon., ℥ j.
Syr. aurantii,
Aquæ, aa ℥ iij. M.

Sig.—A teaspoonful before tea and at bed-time, commencing ten days before expected period, and continue through it.

Under this treatment, her mother informed me that she had been a great deal better during the last two periods than had been the case for years.

In the administration of the remedy, an essential rule is, that its use shall precede the expected period by at least ten days. Its administration only during the crisis will do very little, if any good. The sedative influence of the remedy must precede and accompany the stage of ovarian and uterine vascular engorgment, which itself preceded the flow by several days.

Some writers have spoken quite favorably of the remedy in dysmenorrhea and menorrhagia, administered in the usual manner, that is, during the crisis only. Having been frequently called to see cases of these disorders during their progress, I have failed to observe any very satisfactory evidence of its controlling power while administered only during the emergency. But when administered according to the above directions, it has not only, almost without exception, lessened a regular monthly excess, but it has, in appropriate cases, in quite a number of instances which I can recall to memory, changed a two-week into a four-week crisis.

LANCING THE GUMS.

Dr. JAMES FINLAYSON, in a very elaborate and learned paper *on the Dangers of Dentition* (*Obstetrical Journal of Great Britain*, Dec. 1873, Jan. and Feb. 1874), states that the tendency of opinion at present seems to assent to Dr. West's dictum, that "the circumstances in which the use of the gum lancet is really indicated are comparatively few."* Rilliet and Barthez could only recall one case in which any real benefit resulted from the operation, and the best Trousseau could say of it was that the practice was useless. Even the most sceptical, however, seem to have encountered rare cases where convulsions ceased on the lancing of the gums;† such results are also obtained at times from other most unlikely remedies. It may here be stated that in his careful study of 102 cases of infantile convulsions, Dr. Gee could find no reason to believe that teething bore any part in the causation of the fits, and in none of the cases did it seem necessary to lance the gums.‡

But it may be said, although the benefit may be very doubtful, why hesitate to give any child the chance of profiting in its peril or suffering by such a simple operation? It is very probable that this idea regulates the conduct of many in dealing with infantile disorders. Such a proceeding has very

* C. West, "The Diseases of Infancy and Childhood." 5th Ed. London, 1865. P. 555.

† A. Jacobi, M. D., "Dentition and its Derangements." New York, 1862. "I must confess that once or twice in my life, not oftener, I have observed the instant termination of an attack of convulsions after I lanced the gums." P. 171.

‡ S. Gee, "On the Convulsions in Children." St. Bartholomew's Hospital Reports. London, 1867. Vol. iii. p. 110.

properly been stigmatized as "nothing better than a piece of barbarous empiricism, which causes the infant much pain, and is useless or mischievous in a dozen instances for one in which it affords relief." It may, however, be well to consider shortly whether the absence of danger from lancing is so complete as it is usually represented. And here we may call in evidence the great modern upholder of the practice—Marshall Hall—himself. He was much too consistent an advocate of his own views to ignore the danger of such frequent tampering with the mouth and gums of an excitable infant as he had himself recommended, and he admitted this disturbance as a real and true objection to the use of the gum lancet. Such a course of treatment is indeed well calculated (as an American physician says) to "make your child your mortal foe." But this objection—no trivial one when fully considered—is not all. Local disasters have also happened. Passing by as doubtful any injurious influence on the ultimate growth of the teeth, suppuration and ulceration of the gums, and even gangrene, are admitted by its advocates to have been seen after this operation. Dangerous or fatal hemorrhage from lancing the gums, although not likely to be readily recorded, has been published in several cases. Even M. Baumes admits the danger from hemorrhage in incising the gums when much engorged; and he points out that the swallowing of the blood may conceal the extreme peril of the infant. Hamilton, although he had never seen a death from this cause, heard of one on evidence which he could not controvert. Dr. Churchill admits that bleeding from the wound has sometimes been excessive, requiring pressure, astringents, and caustics. Rilliet and Barthez have known it to require plugging. Dr. B. W. Richardson speaks of having "had two or three very painful lessons of this description," and mentions one death occurring to a country practitioner, and another accident with nearly fatal syncope in his own dispensary practice. Dr. Young, of Edinburgh, narrated a few years ago two deaths which occurred in his father's practice. Fatal hemorrhages have also been reported by Taynton, Anderson, Whitworth, Des Forges, and Nicol, and in only one of these cases was there supposed to be any special hemorrhagic tendency. Further scrutiny of these cases shows, as we might expect, that nearly all the deaths were reported under exceptional circumstances, so that many more disasters have doubtless occurred, and have been allowed to slip into oblivion. Without laying undue stress on these perils and calamities, occurring as they do amongst such an enormous number of operations, they may well be seriously considered *when the generalization of the treatment is contended for on the grounds of its absolutely innocuous character.*

ON SANTONINE, AS A CAUSE OF URTICARIA.

Dr. E. H. Sieveking, physician in ordinary to H. R. H. the Prince of Wales; physician to St. Mary's Hospital, etc., says in the *British Medical Journal*:

I recently prescribed for a little patient of four years old three grains of santonine with five of sugar, which were given to her with her tea; and the nurse was of opinion that she could not have taken the entire dose, as the cup was not emptied. Very soon afterward, vomiting, accompanied by a severe rash, described as uticaria, and covering the greater part of the body, set in. I saw her soon afterward, and found her somewhat prostrated by the attack, but otherwise presenting no unusual symptoms. As, on inquiry, it appeared that some error in diet had been committed, I was not disposed to attribute the effect to the santonine, and therefore ordered the dose to be repeated on the following day. Almost directly after taking the medicine (and this time, again, it is probable that only a portion was taken), a white wheal appeared on the nose, surrounded by an erythematous blush; and a similar eruption rapidly covered the body. Violent vomiting set in, but unaccompanied by abdominal or other pain, or by purging; and the entire face became swollen. This swelling attained such a height, that when I reached the house, within a quarter of an hour of the commencement of the symptoms, the child's face was disfigured to such an extent as to make her almost unrecognizable. The lips, from which some viscid saliva was still issuing, were swollen to an enormous size, glistening from the œdematous distention. The nose—at other times a delicate feature in a sweet little face—was enlarged to the size of a negro's and the eyes were almost closed by the same condition of the lids. The intellect was unimpaired; and there were no spasmodic or other symptoms referable to the cerebro-spinal centres. I at once placed the child in a warm bath, which soothed her; and within an hour the œdema and the rash had for the most part disappeared. No further bad result followed; but, on the contrary, although no vermifuge effect was noticed, the child's appetite and general condition were improved on the following day, after a night of sound sleep.

It naturally suggested itself that the power had not been properly made up; and that some ingredient, for or besides those ordered, might have been introduced. But an analysis, kindly made for me by Mr. Squire, satisfied me that there was no ground for this assumption, and that the result could be attributed solely to the santonine. The analogy presented by the symptoms occasionally resulting from the use of copaiba, the consumption of honey, of shrimps, of mussels, of strawberries, assist us but little in the explanation of the occurrence; but it seems clear that the effect resulted mainly from a peculiar irritation applied to the pneumogastric and sympathetic nerves. The vaso-motor nerves were evidently largely implicated; but I do not remember ever seeing an instance in which so large an effusion of serum took place with the same rapidity, or disappeared as quickly.

ON SOLUTIONS OF MORPHIA FOR HYPODERMIC INJECTION

Mr. C. T. VACHELL suggests (*Lancet*, Nov. 29, p. 797) the desirability of fixing a standard strength

for the solutions of morphia used for subcutaneous injection. To obtain a clear solution, without excess of acid, is not very speedily effected; and he thinks it would be a convenience to the practitioner to be able to purchase a carefully prepared solution of standard strength. Mr. Vachell proposes the following formula:—

Acetate of morphia . .	1 drachm.
Distilled water . . .	12 drachms.
Acetic acid	As much as is sufficient.

He states that one-twelfth of a grain of acetate of morphia would be contained in a minimum of such a solution; the dose would, therefore, be from two to four minims. Some such formula, he thinks, might be inserted in the next edition of the *British Pharmacopœia*.

Dr. WHITE has since pointed out (*Lancet*, Dec. 20) that no allowance is made in the foregoing for the increase of bulk by the addition of the solid, and that a minim would contain not one-twelfth, but one-thirteenth. He says that he makes his solution as follows:—

Acetate of morphia . . .	1 scruple.
Distilled water	140 minims.
Acetic acid, B. P. . . .	5 minims.

Dissolve with gentle heat in a test tube. The solution measures exactly 160 minims, consequently 8 minims would contain one grain of acetate of morphia. As a standard solution he suggests one-half the strength of the above. The hydrochlorate is used by Mr. White (*Lancet*, Jan. 3) in the proportion of two grains to one drachm of hot water. This he has found to form a solution that does not deposit on cooling, and which he thinks preferable to solutions made up with free acids. In the discussion that has taken place the *British Pharmacopœia* solution of the acetate has also been recommended and objected to because of its bulkiness, and suggestions have been made for the use of a standard syringe as well as a standard solution.

Messrs. T. and H. SMITH (*Pharm. Journ.*, vol. iv., p. 436) state that, by using meconic acid instead of acetic acid, a neutral and stable solution of one in twelve, or much stronger, may be prepared. They consider that a neutral solution of meconate of morphia is pre-eminently adapted for hypodermic treatment.—*London Med. Record*, April 8, 1874.

A TEST FOR PUS.

Dr. Day, of Australia, has made some interesting observations on pus which we quote from the *Medical Times and Gazette*, London:

"In 1868," he observes, "I had the good fortune to discover a very delicate test for pus, and have since been in the almost daily habit of applying it in conjunction with other tests as aids to diagnosis. In this way I have learnt some very interesting facts regarding the properties of pus. For instance, I have found that healthy pus, when dried, becomes chemically inactive, although when moistened with water it again resumes its chemical activity than pus derived from healthy persons, and that the pus from persons suffering from diseases allied to erysipelas possesses unusual activity, which it is capable of retaining for years.

"On this paper are two spots of pus which had been allowed to dry by exposure to the air. To one has been added the pus-test alone with, as you may see, a negative result, dry pus being devoid of chemical activity. To the other a drop of water is added and then a drop or two of pus-test, with the result which always follows the application of this test to moist pus—namely, a bright-blue reaction.

"I mentioned just now that pus secreted by persons suffering from diseases allied to erysipelas is more active in its chemical properties than healthy pus. On this piece of glass is some pus taken from a large carbuncle on the neck of an elderly gentleman two years and three months ago. He was suffering from symptoms of blood-poisoning at the time. This pus, as you will see, although it has been freely exposed to the air during the whole time, and sometimes to great heat, still retains its power of acting chemically on the pus-test, and it does so even when dry, thus showing that it possesses greater chemical activity than ordinary pus.

"You will perceive that, in the explanation I have attempted regarding the influence of moist and dry air over the propagation of erysipelas and its allied diseases, I have assumed that when the chemical activity of pus is suspended its power to act as a poison on the system is also suspended

"I will trespass on your time by bringing one other experiment under your notice, as it may help to explain the *modus operandi* of Prof. LISTER'S antiseptic treatment of wounds.

"I have found that carbolic acid possesses the property of entirely and permanently destroying the chemical activity of pus, whether derived from healthy or unhealthy persons. On this paper is some pus which had been moistened with water, to give it chemical activity. A few drops of watery solution of carbolic acid were then poured over it, and after a lapse of a quarter of an hour, the pus-test was applied, with as you may see, a perfectly negative result."

Dr. Day's pus-test is so simple in the mode of appliance, and apparently so certain in its revelations, that we have little doubt that it will soon come into daily use as an aid to diagnosis. He prepared his test-fluid by exposing a saturated alcoholic solution of guaiacum to the air until it has absorbed a sufficient quantity of oxygen to give it the property of turning green when placed in contact with iodide of potassium. On moistening the most minute quantity of pus with water, and pouring a drop or two of the test-fluid over it, a clear blue color is produced.

MEASLES.

Dr. W. B. Atkinson remarked that he had been recently treating a large number of cases of measles, and had also encountered a few cases of scarlet fever.

In this connection, he would call the attention of the members to the use of digitalis. He had been employing an infusion of a drachm of the powder to twelve tablespoonfuls of boiling water; dose, a teaspoonful every two or three hours, according to the age of the patient. He hoped the members would try it and report their results. He had never seen any of the so-called cumulative effect of this remedy. He had used it in this way for many years, and always with markedly good results in twenty-four to thirty-six hours. He had previously employed the various modes of treatment suggested from time to time, but had never experienced so much satisfaction from any other remedial means.

Dr. Buck said he was in the habit of using liquor ammon. acetat. and neutral mixture aa ℥ ii, with a drachm of tincture of digitalis, a teaspoonful every two or three hours.

Dr. W. L Atlee said that he was very much pleased with the remarks of Dr. Atkinson respecting the use of digitalis, as it confirmed his own experience. He had for many years been in the habit of using it in acute diseases, and in all cases of irritability of the heart. He preferred it to veratrum viride, as it is less liable to irritate the stomach, although he sometimes aids its action by administering small doses of the latter medicine at the same time. He had never seen an instance of its cumulative action.

Dr. Welch had recently met with a few cases of measles. He had quite lately treated three cases in the Municipal Hospital, which had been sent there as cases of smallpox. This mistake occurred in some twenty-five instances during the late epidemic. In regard to the treatment of scarlatina, he said that he had frequently heard the late Dr. Gebhard speak in very sanguine terms of the good results obtained by the use of digitalis. This always seemed to him very much like treating a single symptom of the disease, the rapidity of the heart's action. So far as this particular symptom is concerned he thought digitalis might be of service, but did not think it possessed any antidotal power over the poison of scarlatina.

Dr. Atkinson in reply said that he had come to regard digitalis as possessing some peculiar antidotal effect upon the poison of scarlatina. For this reason he preferred the powdered leaves in infusion. Of course he employed tonics, when demanded for the after-treatment. He uses this remedy in full doses until the pulse has come down to its normal rate; and then he reduces the dose or lengthens the interval, so as to keep the system under its influence.

Dr. Atlee asked Dr. Welch whether an eruption resembling measles did not sometimes precede the appearance of smallpox.

Dr. Welch in answer said the eruption of smallpox is frequently preceded by an eruption closely resembling measles. This usually fades out when the true eruption appears. Its presence is so frequently observed that it has received the name *roseola variolosa.—proceeding Philadelphia County Medical Society.*

TRACHEOTOMY.

Dr. M. O'Harra reported to the Philadelphia County Medical Society a case of successful tracheotomy, after which the following discussion ensued:

Dr. J. Solis Cohen stated that he had seen the case of Dr. O'Harra several times since the operation, and was in some doubt as to whether it were not a case of acute laryngitis of children, with submucous organizable effusion, resting this opinion on the absence of any evidence of membrane, the tenderness externally, the immediate recuperation after the operation, the impossibility of respiration without the tube for so long a time, and the swollen condition of the upper portion of the larynx which had prevented laryngoscopic inspection of the interior. He had no doubt as to the propriety of the operation, and believed that cases of simple inflammatory laryngitis were not relieved from suffocation by tracheotomy, because they were mistaken for croup, which many think impossible to overcome by the operation. Persons who have been unfortunate in their first few tracheotomies for croup were too apt to abandon the operation, yet several prominent tracheotomists had lost numbers of cases before they had succeeded in saving one, but still they persisted; and, as the result of the several hundred operations, their success had reached the average proportion. He had referred to the retention of the tube. In some undoubted case of croup there had been, for various reasons, an impossibility to breathe without the tube, though in most instances it could be removed from the fifth to the ninth day, and, exceptionally, much earlier.

The operation should be performed early, before the blood was poisoned by the retained carbonic acid; but cases had been saved at the last extremity. Continuous and increasing dyspnœa with sub-thoracic inspiratory sinking-in, would, he believed, indicate the time for operation, provided these symptoms had existed two or three hours, or even only an hour, and remained insusceptible to the ordinary modes of relief. When the propriety of the operation suggested itself for the first time, there was little time to lose; too long a delay might compromise the result. He believed a great deal of success depended on the after-treatment. The patient, his disease, and for the first day or two his tube, particularly needed attention. He believed that the surgeon, or a competent and responsible medical representative, should stay by the patient the first night after the operation; and, in some cases, the second night also. Cases are sometimes lost by allowing the tube to become stopped up, and the patient dies in the very condition for the relief of which the operation was instituted. He was not prepared to assert that these patients would have lived if the after-attention had been everything that could be desired; but he did believe that they did not obtain a fair chance for their lives. With regard to the statistics on the subject, it was hard to get much satisfaction from them, except that cases were saved; and Dr. Cohen said that he was of the opinion of those who were satisfied with this fact, without inquiring as to the proportionate number saved. The published statistics of the Parisian hospitals, and of

many private operators who had reported their unsuccessful as well as their successful cases—now amounting to thousands—show a proportionate saving of one in from three to four cases. Individual records must be taken at their individual worth. He believed with Trousseau that, with proper care and attention, at least one-half of the cases suitable for operation ought to be saved in private practice.

Dr. O'Harra asked the question whether an anesthetic should be used.

Dr. Hodge remarked that while he employs anesthetics in almost every other operation in surgery, he does not use them in tracheotomy. When the trachea is first opened, there is, for a few moments, almost a cessation of respiration; and not unfrequently artificial respiration has to be resorted to. For this reason the child should be in the best possible condition to respond to the surgeon's efforts, and not unconscious from an anesthetic. The child does not suffer much pain, as the impeded respiration has long since lessened his sensibilities. Dr. Hodge recommends that a portion of two or three rings of the trachea be excised, as has been done in this city for a number of years by Professor Pancoast. In addition to this, Dr. H. employs a tracheal tube for a few days. When such a section of the trachea has been made, the tube is easily inserted without a director, may be removed without any danger of impairing respiration, and can easily be replaced. Dr. H. referred to one case of membranous croup, in which the child would have died if it had not been for this section. In a paroxysm of cough and apnea, with the tube in place, death was imminent; the tube was withdrawn and a mass of membranes discharged through the section which could scarcely be forced afterwards through the tube. Some have objected to the section of a segment of the trachea, that in after-years the scar, by contracting, would interfere with the respiration and the voice. Experience has shown that this does not result in the least degree. By the operation many lives may be saved which otherwise would be lost; and even when life is not saved, relief is given to the terrible dyspnea.

Dr. Hodge reported four cases of tracheotomy on account of membranous croup; and of these four, three lives were saved. He would recommend that the trachea be opened just beneath the isthmus of the thyroid gland, as high as possible without injury to the gland bloodvessels; that a segment of the trachea be excised, and that the patient be kept for a long time in a moist atmosphere at a temperature of 80° Fahr.—*Philadelphia Medical Times*, April 11, 1874.

TREATMENT OF ALCOHOLISM BY NUX VOMICA.

Dr. Luton has obtained excellent effects from the use of nux vomica in chronic alcoholism where the evil has not passed into the absolutely degenerative stage of tissue-change. In the tremors, and the cerebral, gastro-intestinal, and thoracic disorders of alcoholism he resorts with confidence to the use of extract or tincture of nux vomica in ordinary doses.—*Irish Hospital Gazette.*

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MEDICAL EDUCATION.

As the various medical schools will soon be in active operation, some thoughts have suggested themselves in regard to the subjects which are taught therein.

In this country where there is no division of medical practice into Medicine and Surgery, as it exists in England, the student is obliged to inform himself on all the subjects appertaining to both. This entails a vast amount of application, which, considering the time at his disposal, is almost, if not altogether, incompatible with the preservation of health, otherwise a mere smattering of each subject will be all that is obtained.

On reflection, we feel assured that, even with the most systematic disposition of his time, it is impossible that the student can acquire a tithe of what at present is required of him; and, therefore, a graduate on commencing his career is only possessed of a mass of crude ideas which takes years of doubt and anxiety to arrange in proper order. There may be some with such conspicuous abilities and retentive memories, who are able to master the difficulties before them, but the great majority can never attain to anything without persevering industry, and it is for these that all studies must be arranged. In the short space of four years the student will have opportunities, which for the majority will never recur, and therefore it is of the greatest importance that he should learn how to utilise them to the utmost, and that his time be not occupied with superfluous studies. At present medical students are overburdened with a great deal of unnecessary work and a great part of time is thus thrown away as regards the business of life. This has been our opinion ever since we commenced the study, and this opinion has been strengthened by the perusal of the expressions of many eminent men. We do not wish to lower medical studies or narrow the mind to mere professional detail, the benefits to be derived from a liberal and scientific education are not to be imputed, but we cannot see any practical

benefit to be obtained by the medical student from a portion of his present studies. Of what use is Botany to a medical man that it should occupy the valuable time of the student? What more of Materia Medica does he require than to know the properties, therapeutical indications and doses of drugs? A mass of material is expounded which might have done for the days when medical practitioners compounded their own medicines or gathered their own simples. But what use are they now? We do not rely on our own observation as to the quality or kind of opium we order, but leave it to the druggist to supply. Prof. Huxley says in one of his addresses that the student might as well learn how to make surgical knives as to know how to make every drug that is employed, and we are not apothecaries that it is requisite to understand the difference between Alexandria, Tripoli or any other variety of senna. Let such matters be left to those whose special business it is, and confine ourselves to what is of more concern. How much more necessary is it for the student to be possessed of those details which seem to be considered trifles, as they are not practically taught; trifles which, in the aggregate, tend to perfection and often make or mar success. Few students on leaving college can apply a bandage evenly, pass a catheter or open an abscess. There is not one in twenty who has had any practical knowledge of such things. Such men, if conscientious, must begin practice with fear and anxiety for they cannot feel that confidence in themselves which will make them bold without being rash. We have known graduates who could not tell a scalpel from a bistoury, and as for vaccination or bleeding these seemed to be among the lost arts. Now, there is something radically wrong in thus ignoring these small practical details of our profession which would often save the young practitioner from much bungling before he finds them out for himself.

Let there be a preliminary year for all these extraneous subjects, if they are necessary, but they should not encroach on the period of his proper medical studies.

A reform in these matters is urgently needed and we are sure that most, if not all, medical practitioners will concur in this opinion. We consider the time is ripe for a discussion on the merits of some such change, and trust that it will receive some attention at the next meeting of the Canadian Medical Association. Shakespeare says:—There is a time and tide in the affairs of man, &c. We believe this time has arrived for these old conservative ideas to be set aside, and that those studies descended to us from days gone by, and of no further practical use, should be relegated to their proper place. We live in an eminently practical as well as scientific age, and there is so much to be studied that it is not well to burden the mind of the student with matter he will be glad to forget so soon as he leaves college. We also look upon the present system of examinations as pernicious to the proper advancement of the student, and would recommend the mode as carried out in other departments of education. The yearly gradation from a lower to a higher class; as in Arts and Law. This is the only true course, for we might as well expect a child to study history before he has mastered the alphabet, as to expect a student of the first year to understand the principles of pathology before he is acquainted with the fundamental branches of medicine. We trust that sufficient has been said on the matter and that a word to the wise is sufficient. Let those who have influence to institute reform bestir themselves and not allow medicine to relapse into theory or routine and thus open the door for all sorts of quackeries. Place the graduate in such a position that the public, who judge by outward actions, can see that he is superior to a quack. For we have known a graduate who attained to high honours in his University, ousted from a country practice by a six months' graduate from the States who happened to be better informed on these minor details.

DEATH'S HIGHWAY.

An article with the above heading is published in the Philadelphia *Press*, which gives a curious account of Homœopathic Hospital treatment. A man fell from the fourth story of a building and sustained a compound comminuted fracture of the thigh, so that a piece of bone three inches long was found on the pavement. He was taken to the Homœopathic Hospital, the police having received orders from the Mayor to carry all accident cases to it. It appears that the visiting surgeon was absent from town and the resident physician, notwithstanding the severe nature of the injury, thought that it did not require immediate attention. Another doctor, who was not connected with the institution, saw him during the day and agreed that they could wait till the surgeon returned, but, at nine o'clock in the evening, twelve hours after the accident, the same doctor was again called in and amputated at the lower third. The patient sank rapidly and died

three hours after the operation. The verdict of the jury was,—death due to delay in medical treatment, and that the physicians in charge were in the highest degree censurable. Many cases of death from neglect and malpractice have come to light. A young girl was accidentally shot in the head, taken there and died. She was being buried on a certificate of "Hemmorrhage of the Lungs" when the Coroner stepped in and had a *post mortem*. There was a bullet hole in the skull which had been plastered up with lime, and the bullet was found in the brain. In another case an elderly man was hit on the head with an axe. The reporter was told by the doctor in charge, "The man will die before morning; I can do nothing for him, and it would be only uselessly cruel to attempt saving him by dressing the wound. Within a week the man went out of hospital, having received only a scalp wound. We would feel sorry to meet with an accident in Philadelphia if that is the only attendance allowed in such cases.

PRACTICAL PHYSIOLOGY.

It is with much pleasure that we are able to announce that the Medical Faculty of Bishop's College have established a chair of Practical Physiology, and thus introduced the subject into Canada. Should this action be followed by other Medical Colleges in this country, a most desirable benefit will be conferred on Medical Students. The establishment of this chair is one of the most important and most useful innovations in Medical teaching that has taken place for many years. No method of teaching can compare with practical demonstrations. Medicine, Surgery, Anatomy, Chemistry, are all taught practically as well as theoretically. Practical Physiology is quite as necessary to the physician as dissections are to the surgeon. Students who once *see* and understand the actual relations (physiologically) between the various nerves and organs, &c., demonstrated in the living animal, can never forget them.

The laboratory in connection with this chair, is quite distinct from the other laboratories of the College, and is most completely fitted up. Most of the apparatus have been specially prepared for it in England, France and Germany, and, we believe, are the only ones of the kind yet in Canada. Amongst them we noticed Czermach's rabbit support, Sanderson's Kymograph, Du Bois Raymond's induction apparatus and key, electro-magnetic marking key, marking lever, moist chamber with electrodes, &c., Konig's vibrating pitchfork metronome, commutators, Foster's levers, Griffin's blower for artificial respiration' besides a host of other apparatus.

The animals to be experimented upon are rabbits, cats, dogs, guinea-pigs, frogs and pigeons. We have been shown a large number of all these animals (except dogs) which are now in stock for use during the coming session. A vivarium is fitted up for the frogs, to keep them healthy and strong for class demonstration during the winter.

It is needless to say that no animals will be experimented upon until rendered insensible. For this purpose various agents will be used, according to the nature of the experiment, Chloroform, injection into the veins of Tr. Opii, solutions of Curare or Chloral.

The laboratory is under the charge of Dr. Wilkins Professor of Pathology, who has been appointed Lecturer on Practical Physiology.

MORTALITY OF MONTREAL AND ENVIRONS.

The following communication based on the official bulletin for the month of July, has been tendered us:—Deaths, 767. Small-pox, 70, most of which occurred outside the city limits. This large number shows how systematically vaccination is neglected and how that neglect is fostered and encouraged by those who should know better. 55 being among children under five. Of 17 deaths from dysentery, 10 were infants. Diarrhœa, 94, 81 being infants. Infant cholera, 83. For practical purposes those might be all included under the heading of diarrhœa, and shows the high death-rate among the infant population during the hot season. The great proportion of the infantile mortality is in part due to the neglect of mothers in not sending for advice at the proper time. This is notably the case in the Eastern and Northern portions of the city. In most cases the physician is called to see the child die in order to obtain a certificate for burial. The report shews a lamentably high mortality; 46·48 deaths per 1000 contrast unfavorably with the death-rate of other cities. More accuracy is required in classification, this not being the fault of the Health Officers, but of those who made out the certificates. 74 deaths are put down to "Enfants Trouvés," this probably being the quota from the Grey Nunnery.

ANTI-VACCINATION.

We have received a report of the investigation into the alleged case of poisoning by vaccination, but, as the editorial in the last number gives an outline of what occurred, and the report is long, we are unable to find room for it. We understand that the anti-vaccinators are again rushing into print and are publishing another case with photographic illustrations. Even if poison had been introduced into the system of these children, it would no more disprove the value of vaccination than a death from chloroform would prove that it should not be used. We saw the last case and the spot had the appearance of an ulcer, such as is seen in unhealthy persons, and classified as indolent. Such we took it to be, and from our enquiries have no doubt that dirt had as much to do with its formation as anything. Cancer cells, Syphilis, and what not have been found by these would-be discoverers, and though they have succeeded in scaring a few, better and more skillful evidence must be obtained before the general public will feel concerned.

LAVAL UNIVERSITY.

We are in receipt of the annual circular of the above. It forms quite an extensive pamphlet of 130 pages. The number of students who attended the classes in medicine, during the session 1873-4, was 89. 19 obtained the degree of M.B.

A Davenport newspaper speaks of a doctor in that city "looking with a deep meaning smile upon a large lot of green cucumbers in the market." On his way home he was observed to whisper confidentially to several undertakers.

It is related of Sir James Simpson, the celebrated English physician, that the Duchess of Buccleugh drove up to his door and sent her footman to tell him that she waited without. "Tell the duchess," he replied, "that Dr. Simpson is engaged with a washerwoman."

PERSONAL.

Dr. Robert McDonnell, F.R.S., of St. Stephen's Hospital, Dublin, was in the city for a few days during the first week of this month, being on his way to the Pacific Coast. In company with Dr. Hingston, he visited the Hotel Dieu and Montreal General Hospitals, expressing himself as being highly pleased with the visits. Dr. McD. is well known for his Physiological researches, and for his strong and able advocacy of Torsion as a means of arresting hæmorrhage.

Dr. Moffatt, of Quebec, terminated a somewhat long career on the 3rd of September, at the age of fifty-seven. Dr. M. was better known for his kind, genial bearing, and for his *bonhommie* than for brilliant talents or extensive acquirements. He was considered a safe and prudent practitioner, ever ready to receive advice from his confrères, which a modest estimate of his own abilities led him to think was of advantage to those entrusted to his care. Dr. M. is said to have amassed considerable wealth.

Dr. E. A. Duclos (M.D. Bishop's College, 1874,) has settled in St. Hyacinthe, Quebec, where he has a good prospect of success. He has been appointed medical attendant to the French Protestant Institute, situated at that place.

Dr. J. B. McConnell, of this city, has been elected to the Chair of Botany, in the medical faculty of Bishop's College, rendered vacant by the resignation of Dr. Tabb. Dr. McC. has diverted considerable time to this subject, having made it a speciality, and is in possession of a very large collection of Botanical specimens, which have been collected and arranged by himself, being the result of extended tours made for the purpose.

Dr. O. H. E. Clarke (M.D., McGill, 1870,) is in the possession of an extensive and lucrative practice at Cohoes, State of New York.

Dr. G. W. Peltier (M.D., Bishop's College, 1873,) has also settled in the same place.

Cohoes is a manufacturing town which is rapidly increasing in size, and contains about 20,000 inhabitants.

Dr. Wallace Clarke (M.D., McGill, 1871,) of Marquette, Lake Superior, was in Montreal the beginning of this month, being called here by the urgent sickness of his father.

Dr. Wilkins, Professor of Pathology in Bishop's College, has been appointed lecturer of Practical Physiology in the same institution.

Dr. G. E. Fenwick has returned from Scotland and resumed practice. Dr. F. had a very pleasant trip, and his numerous friends will be pleased to learn that his health is completely restored.

The introductory lecture at the opening of the fourth session of the Medical Faculty of Bishops College, will be delivered by Prof. Kennedy, Oct. 1st, 11 a.m. Friends of the college are invited to attend.

BIRTH.

ALEXANDER.—On the 7th inst., at Montreal, the wife of John R. Alexander, M.D., of a daughter.

DIED.

LOVEJOY.—On the 26th inst., at 686 Palace street, Jennie Augusta, beloved daughter of Dr. Geo. W. Lovejoy, aged 7 years, 4 months and 3 days

At Quebec, on the 3rd of September, after a short illness, P. D. Moffatt, Esq., M.D., in the 57th year of his age.

Original Communications.

Introductory Lecture to the Fourth Session of the Medical Faculty of the University of Bishop's College. Delivered on the 1st October, 1874, by Richard A. KENNEDY, A.M., M.D., C.M., Professor of Anatomy.

Mr. Dean and Gentlemen,

The progressive march of time has brought us to this, the commencement of the fourth session of the Medical Faculty of our University; and as it is customary to re-open our classes with a general introductory lecture, my colleagues have deputed me to address you on this occasion. In their name I welcome you to-day. A welcome extended not alone to students, but also including those former students and kind friends who now honor us with their presence.

Three years of existence have been accorded us, with a success seldom attained by a new school, and which might be termed extraordinary. When I reflect upon the past, I feel thankful that the many difficulties which beset us in the beginning have been overcome, and that our efforts have enabled us to place this school upon a sure and sound basis, with a hopeful promise of increased usefulness in the future. The struggle from which we are emerging has not been without its beneficial effect; for it caused us to measure our strength, and spurred us on to increased effort, so that nothing might remain undone to give our students a good professional standing. Already has our existence been beneficial to the interests of the profession, and many who formerly were lukewarm or opposed to us, have become our friends and wish us prosperity. The narrow-minded and illiberal partizans of other schools predicted failure on our part, and judging us by their own standard, slandered the capabilities of our professors. Our standing to-day proves them in error, and we can claim for this school a position second to none and superior to many in the Dominion.

During the three sessions now passed, sixty-one students have attended our classes. Some of these having previously attended the classes of other Universities, required only one year with us to become qualified for examination, while others have completed, or are completing, the full term required of them. Of these sixty-one students, twenty-seven have graduated and are now practising, some in the United States, but the major part in this Province. A few have left us, their circumstances preventing them from attending and not from reasons of dissatisfaction. Indeed, it is gratifying for us to know that our students return, feeling that here they can do best, and not only do they return, but almost invariably they induce others to come also. This fact alone speaks volumes. Through the changes which have occurred in our staff, some of our graduates now occupy honorable positions in this faculty, and I trust that not one of them will ever have reason to complain of their alma matèr either neglecting or ignoring their claim to consideration. Whenever it shall be our misfortune to have a vacancy, that vacancy will be filled according to the principle which we have adopted, and he that is found most able to fill the post will obtain it. In this way we hope always to maintain the efficiency of our chairs, and not merely to have them filled by favorites or those incompetent to the task. Our college is now complete in its appliances; we have a large building with light and airy lecture rooms. Our class rooms for practical anatomy and chemistry are now replete with everything requisite for the prosecution of these branches; and we have taken a step in advance of any other institution in the Dominion, by establishing a course in practical physiology. In hospital facilities we are on the same standing as the other schools; and the addition of a maternity department, in full working order, completes the requisites for graduation. I may state, in addition, that the opportunities for medical education in this city are greater than elsewhere in our country, we have the largest field of hospital, dispensary, and other practice; and I may add, without any exaggeration, that this school has advantages over other schools in its larger staff, allowing a greater division of labor, and increasing the energy brought to bear on our lectures.

I will now address my remarks more directly to those gentlemen who will be with us during the coming months. It is with no slight feeling of anxiety that we again resume our teaching, for we feel the responsibilities attached to our position, and that the welfare of others as well as your own depends upon the success of our efforts to fit you to fill your place in our profession. We will guide you in the way of your studies, let it be your duty to take advantage of our guidance. Do not let the remark of Voltaire be hereafter said of you, that "the doctors poured medicine of which they knew little, into a body of which they knew nothing." To those whom we have had the pleasure of instructing heretofore, I need not tender words of promise, you have

already experienced the solicitude we feel to thoroughly equip you for the battle of life, and to render you capable of filling honorable positions. You have got over the difficulties of freshmen, and have acquired that insight into technicalities which will enable you to appreciate and understand the lectures. Some of you have already passed one or more examinations, which, before passing, appeared to be difficult; but which, being duly prepared, you have found comparatively easy. Persevere, and the same result will follow whenever you shall present yourselves for examination. I trust that the long vacation just ended has not lessened the zeal which you have shown hitherto, but that you now return with energies recuperated to carry you onwards to the end. To those whom we now meet for the first time I would say that it is a pleasure to enroll you as students. The good report of former pupils has induced you to cast in your lot with us, and I am confident that you will not be disappointed, for in the future you will remember with satisfaction the lessons which have been taught you here.

The subject of your studies must now occupy our attention. The period of your novitiate required by this University before graduation, is four years. One of which may be under the tuition of a regular practitioner, the remainder in attendance on lectures. This is the usual custom in this country. I am aware that in some cases in this province this period has been abbreviated, and men have graduated and commenced practice who can hardly understand the rudiments of their profession. Such proceedings are disgraceful, if not criminal. The undeveloped talent of these men is wasted, they are an injury to the public who employ them, and a disgrace to the profession they have entered, tending, as they do, to lower the value of medical services. In this way the standard by which the public are guided is of such little value that we need not wonder that error should creep in, so that all sorts of pathys, like ill weeds, take root and flourish. That such is the result can be seen by observing the condition of medicine in the adjoining States. There, anyone can obtain a license or degree at very small cost either of time or mind, and the public are therefore at the mercy of every uneducated quack who is bold enough to start a theory or patent a medicine. The example of Ontario is a good one; all men are there obliged to pass a central examination on subjects which are requisite, no matter what practice may be followed, the result being the exclusion from that province of the uneducated charlatans which before swarmed over from the United States. Let a student be thoroughly grounded in the fundamental branches of medicine and there need be no fear of his adopting crude ideas or absurd doctrines. It is true that qualified practitioners sometimes change their practice; but if you will enquire closely into the reasons you will find either that they were inferior as students or else are unprincipled enough to take advantage of popular errors. For you will always find people who are ready to try every new thing which presents itself; it may be hydropathy or Swedish movement, the so-called eclecticism or homœopathy, each with such obtaining its time.

Gentlemen, the profession of medicine is one of the most honorable occupations which can be engaged in. The remnants of superstition and mystery which clung to it up to a very late period, have been gradually swept away, reason and observation assuming their place. The reproach which Bacon, in his time, threw upon it, that those who professed it did not seek for specific causes or remedies, is now taken away. We are in an age of incessant experiment, and medicine rests on a sound basis, with no limits to its expansion in the future. The brilliant discoveries of late years in physiology and pathology mark a new era in its history, and elevates it from an art into a science.

From the extensive additions thus made a greater amount of knowledge must be acquired by students than was necessary half a century ago, and subjects altogether new must now be studied ere you can be qualified to practice. The period of your studies, however, still remains the same, and is, in my opinion, altogether too short. Time is not allowed you to become properly qualified for practice, and I would like to see this period extended; but, as it is customary elsewhere to limit it as at present, we perforce must follow the custom. The present system is one of cramming, and many, I fear, leave the Universities of this country with very crude ideas in regard to medicine, these ideas often becoming oddities. To such, "a little knowledge is a dangerous thing." Still, with the short time before you, much can be accomplished if you are methodical in your studies. Have an allotted time for each branch of study, and guard yourselves from falling into irregular habits. Above all, remember the commandment: "Six days shalt thou labor, and do all thy work." Follow this closely, for it is a very erroneous practice attempting to fill up the lost time of the week by working on the seventh. It is a physiological as well as Divine law, and its neglect is

invariably followed by serious consequences. The brain absolutely requires this period of rest, or else the memory will be weakened and the system suffer deterioration.

The importance of practical anatomy, physiology, chemistry and clinics, are now fully recognized. They form an essential element in your studies, enabling you to leave College with something better to work on than mere theory. As much time is required for their exercise, the period formerly devoted to reading is now curtailed, and this is an additional reason why your studies should be continued for another year. A reform is also needed in the manner of your examinations, which should be yearly, and thus by degrees carrying you on towards the end. At present the freshman does not see the necessity of applying himself to study, his examinations are apparently so far off, that he is apt to become careless and waste precious time in idleness and frivolity, instead of learning the technicalities of his study. A few questions, taken from a multitude, cannot be a true test of a student's ability; if he is familiar with them he gets through, but if unexpected, though he may be generally well read, how bitter the disappointment. A graduated system of examinations must increase the amount of facts to be remembered, and enable the student to have a better understanding of the different theories which present themselves. The public would derive greater benefit and the individual would feel himself better qualified to cope with disease. I have often, when lecturing, been struck with the absurdity of the present system of expecting a mixed class of freshmen and seniors equally to understand the subject on hand. To the former, the greater portion of the lecture might as well have been delivered in sanscrit; to the latter, who, having become familiar with its technicalities, it brought to memory previous dissections and explained much to them that was obscure.

By your presence here I infer that you must have acquired the elements of a good education, the necessity of which is as important in the medical profession as in any other. There is one subject, however, which is not included in your preliminary examination, which rightfully belongs to it. I refer to botany and zoology. Placed among your medical studies it occupies the time which should be devoted to more important matter. I believe with Professor Huxley, "that any one who adds to medical education one iota or tittle beyond what is absolutely required is guilty of a very grave offence." And botany and zoology are additions which could well be left out of a regular course of medical study, being remnants of a by-gone age. Many devote more attention to these subjects during their first year than to the other and more essential branches which they are supposed to be also studying, so that valuable time is lost in preparing a subject which never afterwards receives any attention.

Do not think that I wish to deprecate the importance of these or any other scientific branches of study; if properly understood, they give the individual a broader stand-point. The object of your attendance here is not to become botanists or zoologists or even apothecaries, but to become physicians and surgeons; and, therefore, all studies, apart from those which pertain to that end, should be set aside

Of the various subjects which will occupy your attention I will first mention that which I have the honor to teach. I place it first, not because it is my department or from a wish to give it undue prominence, but from the fact that it is the very foundation of your studies. Upon it is erected the science of medicine, and it is the chief corner-stone of surgery.

The poet has said that "the proper study of mankind is man;" among the many aspects which that study presents none is superior than the examination of that wonderful and complex structure which was called into existence by the breath of the Almighty, and which was the crowning development of the great plan of animal creation. The importance of the subject in relation to your other studies cannot be overrated: for, it is impossible for you to become skillful or confident surgeons without having an intimate knowledge of the parts upon which you operate, nor can you, as physicians, expect to make a correct diagnosis of disease unless you thoroughly understand the arrangement of each organ. In disorders of the nervous system is this more especially the case. I place the subject before you in as strong a light as possible, and I have one very good reason for doing so. You will have opportunities hereafter of forming a more extended acquaintance with the other branches of your curriculum; but not with this, unless you can attend a dissecting room, so that here alone can you hope to become familiar with the anatomy of the human body. Prize this opportunity of making practical dissections, reading or lectures are only guides, and will not give you that just appreciation of the subject which is required. It not only makes you familiar with the appearance of each structure, but it also makes you at home with the knife, so that you gradually acquire

that manual dexterity and delicacy of touch requisite to the surgeon. The systematic detail of anatomy, as given in lectures, is very dry work, but this dryness will be very much lessened by an early and close attendance in the dissecting-room. I have observed that the majority of students neglect their opportunities and avoid dissecting as much as possible—their endeavor being to get through the required number of extremities as quickly as they can, without paying due regard to the object. Some students make excellent bone cleaners but poor dissectors. Possibly they would dissect better if they had to do it by stealth, as in the olden time, when the bodies of animals were often substituted for that of man. We live in a day of enlightenment, the wise provisions of our laws enable you freely to investigate and follow up your enquiries without fear of popular vengeance. Though prejudice still exists it is as nothing to the horror which once prevailed at the idea of interfering with the dead. Looking back at the history of anatomy we find that the first dissections were made at the school of Alexandria, three hundred years before Christ. Herophilus first inaugurated practical anatomy, and by his zeal and courage broke the bonds of superstition and bigotry which surrounded him, and by overcoming the natural repugnance of the dead, became one of the great benefactors of mankind. We still retain some of the names which he gave, and among which is the duodenum and calamus scriptorius. We must not, however, suppose that nothing was known of the human structure before he dissected. The skeleton in all ages must have attracted attention. Students were drawn to that school a century before his time for the purpose of studying the bones and here is another example for you to follow. For if they found it necessary to study the skeleton in that age of imperfect anatomical knowledge, how much more necessary is it for you to do so. You do not require to go long distances for the purpose, each of you can obtain for himself the material for such study, and I trust that the statement of an eminent lecturer in England, will never be said of any one of you. In speaking of the examinations, he said "that many students were rejected because they could not tell a clavicle from a first rib, and though they might guess at a femur could not tell to which side it belonged.

In ages subsequent to the one I have mentioned, as the Roman Empire declined, and the Saracen power was developed; anatomical investigations ceased, for the Koran pronounces him defiled who touches a corpse. The knowledge which had been acquired was too precious to be lost, and it was handed down from physician to physician through subsequent periods until it reached the beginning of the fourteenth century. The dawn of science and education, which succeeded the mediæval night of bigotry and superstition had also its effect on anatomy, by throwing light upon the imperfections of anatomical lore. No doubt the surreptitious researches of physicians suggested the necessity of revision, and induced the Papal Government to authorise dissection. Italy thus became the fountain head of anatomical knowledge out of which sprang a long list of anatomists whose names are imperishably connected with the structures of the body. For instance we speak of the tubes of Eustachius, and those Fallopius; the lobe of Spigelius; the glands of Meibormius; the bridge of Varolius; the valve of Vieusens, and the nerve of Vidius. Names so often repeated during your professional studies as to become as familiar as household words. The history of anatomy has been progressive, previous investigations cleared the way for the grand discoveries of Harvey, and enabled Hunter to immortalize his name. From general we have, in our time, advanced into minute anatomy. Microscopic observers have made discoveries which could never have been surmised by the worthies I have mentioned, and still the search continues. In the future, the hidden processes of our bodies will be laid bare to the persistent efforts of patient workers in this laboratory of nature. This brings me to the subject of physiology. As anatomy exhibits the body already formed, and each part fitted to perform its function; this will show you how that formation occurs; the use, growth, and minute structure of each part. It enables you to follow out that wonderful development which, from a mere spot, culminates in the perfect man. You will learn the change which food undergoes after its reception into the stomach; the manner of its absorption into the blood; its appropriation by the tissues; and, lastly, its elimination and excretion. You will understand how the body is sustained by the orderly succession and slow growth of cells, the study of which, in health, is essential, if you desire to form a proper idea of the rapid growth and irregular succession of cells in disease. Supplemental to the ordinary lectures in this branch the Faculty have instituted a series in practical physiology, of which I advise you all to take advantage. At present, attendance upon them is optional; but, apart from the benefit to be derived as a study, they are

extremely interesting to a non-scientific observer. This branch has been kindly undertaken by the Professor of Pathology, Dr. Wilkins. This gentleman has imported, at great expense, the requisite instruments, which, I believe, are not to be found elsewhere in the Dominion. It is but right to state that the establishment of these lectures is entirely due to the energy and enterprise of that gentleman.

Passing onwards to the closely allied subjects of chemistry and materia medica, the thought suggests itself that here also there is room for improvement. I do not imply any reflection upon those gentlemen who so ably fill their chairs, for I know that none could better expound those requirements which it is thought necessary at present to demand of the student; but I consider that much might remain undone, and those parts which relate to the druggist be left to the latter, and others included in the preliminary education.

Chemistry, as a science, probably first originated about the year 721, in the laboratories at Bagdad, which were erected for the purpose of preparing medicines. Its evolution, however, has been gradual. Passing on to the labors of the alchymists of the middle ages, who discovered many important chemical compounds, as well as many of the most valuable medicinal agents. This was not their professed object; the hypothetical elixir vitæ or philosopher's stone was the magnet which drew them on, so that from beginning to end, their discoveries were the result of chance. Still, by the familiarity engendered with many natural substances and the insight into their composition, these labors paved the way for the grander discoveries of later days. In 1760, alchemy received its death-blow and chemistry became a science. The discovery of the use of the balance, by Lavoisier, being the birth of the embryo which was nourished in darkness. Since then how rapid has been its growth, and what wonderful substances have been discovered by such patient investigators as Dalton, Gay Lussac, Berzelius, and after them many others, among whom Faraday is not the least. It is chiefly in organic chemistry that discoveries have mostly occurred, and our materia medica has been greatly enriched thereby. Chloroform, chloral hydrat, and other remedies of the same class are among the products thus produced. If you reflect for a moment, the fact may appear astonishing, that nearly all these new remedies act directly on the nervous system, either as anæsthetics, anodynes, or sedatives. They are discovered, as it were, because in this age of steam men live faster and waste more nervous energy than did their forefathers, and therefore required such special remedies. Chemistry, in presenting us with anæsthetics, conferred the best gift that medical science has yet received. Sir W. Ferguson observes: "I see nothing which has transpired in the present century, which, in magnitude or importance, can compare in our annals with anæsthesia; and, in my mind, it ranks in value to mankind scarcely less than the results of the labors of Harvey and of Jenner." In materia medica vague ideas still exist as to the action of many remedies, powers diametrically opposite being often ascribed to the same remedy with the same dose; and though great advances have been made during the past few years, much still remains to be discovered. Every year marks the advent of some new drug, which either enjoys an ephemeral existence or takes its place among established remedies. The bromides, chloral, carbolic acid, are instances of the latter. Drugs are the instruments by which you combat disease, and it is not in being acquainted with a vast array of these that will bring you success, but the thorough knowledge of those you do use. How drugs are obtained or compounded is of little importance to you, the pharmacopœa provides for that; but avoid forming multifarious recipes and incompatible mixtures, which alike indicate ignorance of therapeutics and the art of prescribing.

I have thus passed in review the four subjects which are called primary, a just appreciation and knowledge of which will enable you to understand those other branches which are denominated final. In the first lies the foundation of your studies; in the second, the practice of your lives, and of which you must ever remain students. The tripartite division into medicine, surgery and obstetrics, is merely arbitrary, and the tendency of the present time is to combine them in practice; though there are those with a peculiar bias of mind, which leads them to follow one of these more closely than the others. This combination is but rational, seeing that it is impossible to mark the dividing line between them, a knowledge of each being necessary for the proper application of treatment to disease. Monks are no longer physicians, barbers surgeons, or old women obstetricians. The developments in pathology have connected them, and shown how intimate is their relation. This latter subject explains how new and abnormal structures are substituted for normal tissues; how an organ becomes diseased and the manner of its restoration to health again, if it be restored; so that before you can have a clear idea

of disease you must thoroughly understand the condition in health. Physiological changes take place slowly, pathological more generally rapid with a tendency to early decay. The researches made in this line has cleared up much that was formerly obscure in disease, and has placed medicine upon a scientific basis. By freely examining the dead we are enabled to foretell the history of the living, and thus mark the course of disease, foresee probable emergencies, and observe the effect of treatment. For instance, in Bright's disease of the kidney we are aware of the secondary lesions which are apt to occur in the lungs, heart, brain, &c., and, by anticipation, can adopt a scientific mode of treatment which will aid the "vis medicatrix naturæ" in prolonging the life of the individual. Medicine, in this way, becomes emancipated from empiricism, and a better understanding of the object of our remedies and their mode of action is obtained. All this is modern, but the practice of medicine is ancient. In the earliest periods of human existence medicine must have been more or less instinctive in its character; but, so far as history relates, it had become artificial, diseases being ascribed to supernatural causes and their cure forming part of religious superstition. Medicine thus became a mystery, such as we have it among the savage tribes of this continent at the present time. Amulets, necromancy, and the belief in omens, have each held their reign over the minds of men, and even to this day among ourselves we find many who still believe in supernatural agencies. Medicine thus cradled in mystery, has gradually been emancipated from such thraldom, and though not perfect, the gradual accumulation of truths is preparing it for a high standard in the future. Probably you will often be perplexed by the present diversities of thought and practice; but such differences must always exist until the truth is established, and are necessary for the exercise of that freedom of thought which keeps us from being the slaves of routine. The differences in the treatment adopted by physicians are often of less importance than they seem, for there are more ways than one of curing a disease, and each may prove equally successful. Fifty years ago, bleeding, purging, and salivation, was the routine. To-day that treatment is discountenanced and has but few followers. Homœopathy has done this much for mankind, for, by letting diseases run their course, it has brought about the discovery that in many acute cases the natural tendency is towards recovery. At the present day heroic measures are seldom resorted to, the rule being to watch the tendency of the disease and by gentler means assist nature in a cure. The fact that the treatment of disease has undergone change does not prove that our predecessors were in the wrong; there may be cycles in disease calling for different treatment as time rolls on. The constitution of man, under the varying phases of our civilization, may undergo a change, requiring a change in our remedies. All, however, is not changed; we retain many valuable practices derived from the ancients. Possibly the greatest modern change is in the treatment of fevers. For instance, in scarlatina, the mode some twenty or thirty years ago, was to keep the patient as hot as possible, with the idea of favoring elimination by the skin, even cool drinks being forbidden, and if any one had suggested the cold douche or wet-pack he would likely have been scouted as a murderer. Now these latter means are used as a valuable auxiliary in reducing the temperature, and when judiciously applied have the effect of increasing instead of diminishing the eruption.

In Surgery also changes have occurred in our ideas: cavities are now freely opened and organs manipulated or removed, which would a few years ago be supposed to ensure death, and cures are obtained which formerly were thought to be without the reach of human skill. Whether the non-success of former times was due to the entrance of atmospheric germs into these cavities is a question we cannot answer, for their existence is not yet fully proved. Probably there are such germs, for since the antiseptic properties of carbolic acid have become available a lower rate of mortality has been obtained in operations. This with the more common use of stitches favoring an early and perfect union in incisions of considerable length, have increased the chances of success. From the short experience I have had in surgical operations I am inclined to give a very high ranking to carbolic acid, and coupling it with chloroform believe that we have now the very best means of obtaining success. The conservative surgery of the present day is also worthy of remark. The preservation of useful members by the removal of diseased parts and the treatment of distortions by the division of tendons, mark an advance in the art of surgery.

Plastic operations where, by the transplanting of skin, deformities are improved, is also another. The delicate operations in ophthalmia again display the skill attained and the perfection of the instruments employed.

Lithotomy in many cases has been superseded by

lithotrity, which latter is generally considered to be a modern innovation; but curiously enough, it is recorded of Ammonius who flourished somewhere about two hundred years before Christ, "that he invented and used an instrument for crushing stones in the bladder." But to detail all the brilliant results of surgery would occupy too much time. Probably it is the brilliancy of these great operations attract the mind of the student to the exclusion of these operations in minor surgery which are most commonly met with, and which constitute the bulk of surgery. As much skill and judgment is required in these minor details as is required to perform a great operation, the success of which is often depending upon the careful attention to minutiæ as to the operation itself. The operation may be successful, but the patient may die from some minor neglect and thus bring discredit upon the whole proceeding.

In obstetrics we have an instance of an art rescued from degradation by the advance of civilization. At one time it was regarded by the profession as being beneath the dignity of man to have anything to do with it. But as valuable lives often depended upon the skill of the accoucher the public demanded that something better than old wives experience should be furnished. The removal of the sentimental prejudice against men attending confinements cleared the way for the efforts which have been made to give this art its proper position, and among its followers we have the names of individuals, such as Sir J. T. Simpson, who have been prominent in discovery and who have done much for medical science. The advocates of female medical education base their claims for the entrance of women into the profession chiefly on this branch, and bring as proof the fact that in all centuries and among all classes women have been the obstetric attendants. This has been the case for the reason that man considered it beneath his dignity, and especially from the fact that in all uncivilized races the life of a woman bears but little value. This practice of employing women would be apt to continue as civilization advanced, because it would take time to force people to see the necessity of change. It was not till the superior civilization of the Romans that men were first employed, and the greater the civilization the more men will you find as accouchers. Not only are the lives of women of more value but from their modes of living, greater difficulties occur, while among savages labour is an easy process, and therefore the employment of old women midwives is going out of fashion. Any old wife who has had five or six children thinks she is capable of taking charge of a case, and after a normal attendance upon lectures, the matter of which, being above her comprehension, she cannot understand, is furnished with a license to practice. I am not opposed to the employment of women in these cases, there are many among the poor, who cannot afford to pay a nurse as well as a doctor; but less ignorance should be seen than at present, so that difficulties would be early detected and a doctor obtained, for the skilled accoucher observes and is able to rectify dangerous conditions at an early stage. If we could tabulate the experience of physicians we would, I have no doubt, find that their most difficult cases have come to them through the hands of a midwife. Your success in life will largely depend upon the manner in which you conduct this department, especially in country practice; you will have to pass before a self-constituted board of matrons. Many a man has commenced a successful career by the verdict thus given and many have met with disappointment. Till within a very late period the diseases peculiar to women were almost unknown, but so much has lately been added to our knowledge of them, that you will find yourselves called upon to attend a large number of such cases almost daily. Of the remaining portion of your studies a few words may suffice. Medical Jurisprudence is often followed as a specialty as it seldom falls to the lot of the general practitioner to be engaged in cases which require an expert's decision. Excepting at inquests you will seldom be required to give an opinion involving the life of a fellow being. On the other hand, Hygiene will require much of your attention. "Prevention is better than cure," and as many diseases are preventable, and the public are now aware of the fact, you will often be called upon to advise measures to stamp out epidemic and other disorders. The apathy which clings to the public mind on this subject is something astonishing, and were it not for the persistant efforts of sanitarians backed by the occasional outbreak of disease in exalted personages, as in the case of the Prince of Wales, nothing whatever would be done to correct such evils. In communities like the one in which we live, evils are perpetuated which could be remedied. Indeed it is remarkable to note the objections and difficulties which are placed in the way of sanitary measures. For instance willful ignorance has in this city set itself to combat the benefits of vaccination, and has adopted disreputable means to gain a hearing; but it is altogether too late for to disprove the value of

what time has shown to be one of the greatest discoveries of our age. It will therefore be your duty to correct such abuses, and to use your influence in preventing those epidemic disorders which so often decimate our population.

At the risk of being tedious, I have thus mentioned each portion of your studies. I trust, however, that my remarks may not be altogether without benefit to you, as it is my wish to impress the fact of your having entered upon a very serious profession, but one which will reflect honor upon you, if you will follow it in the spirit of gentlemen; working with honesty and integrity of purpose, and doing unto others as you would be done by. In this way you will be an honor to the profession, gain the esteem of your fellow men, and be useful in the world. In conclusion I would earnestly recommend you to be regular in attendance upon lectures, and to make yourselves practically acquainted with the use of the diagnostic instruments, such as the stethescope, laryngoscope, the microscope and clinical thermometer, as well as the other instruments which are requisite for the intelligent practice of the profession. By so doing you will be able to commence your career with a sense of self-reliance which will gain a position of independence if not wealth. Such are your opportunities and your duties; do not forget that, though life may be short, you have a place to fill as an atom in the body of mankind; fill it well, and, when life's eventful journey shall be near its close, you will have the pleasing consciousness of having been a good and faithful servant to the Master who placed you here; and, afterwards, of witnessing the rise of a glorious Sun when the day breaks and the shadows fly away.

Case of Intussusception. Under the care of J. T. Finnie, M.D., C.M., L.R.C.S. Edin. Recovery.

Early on the morning of Sunday July 12th, I was called to see the child of Mr. R——, of Ann Street, a fine healthy looking lad four years old. Up to a late hour of the night previous the child appeared to be quite well, but towards morning complained of a pain in his belly, which gradually increased in severity accompanied with a desire to go to stool. Nothing, however, was passed but a small quantity of watery fluid slightly tinged with blood. The parents becoming alarmed sent for me to go at once and see their child. On arriving I found the patient as described, suffering from a pain in the lower portion of the abdomen, the seat of greatest tenderness being about the right side of the umbilicus. No vomiting was present at this time, beyond what resulted from the administration of a dose of castor oil, given previous to my visit, it having been rejected almost immediately after being swallowed. I strongly suspected invagination but as symptoms so far were not urgent, I merely gave a small dose of opium ¼ of a grain, with instructions to repeat the same in two hours if pain continued. At eight o'clock the same morning I saw the little patient again, vomiting had now set in, and the desire to go to stool more frequent, the dejection being nothing but blood. By external examination, I could find no tumor or enlargement; neither by passing my finger up the rectum, could I detect anything to aid the diagnosis.

Being satisfied from the symptoms, that invagination did exist, I by means of an ordinary enema syringe injected a large quantity of water into the bowel, but with no satisfactory result. I left with the intention of procuring a pair of bellows and try inflation. After considerable trouble I succeeded in procuring the latter, through the kindness of my friend Dr. Rodger, who accompanied me. We endeavoured by means of *inflation* to affect a cure, but with no better result. As everything seemed to have failed so far and the child becoming worse, I despaired of success.

Dr. Rodger suggested that a large syringe or stomach pump be used, with a long nosle. After some hours further delay I succeeded in getting such an instrument. I inserted the gum elastic tube or nosle its full length, fifteen or eighteen inches into the bowel (per rectum), and after throwing about a quart of fluid into the intestines, suddenly something gave way, with a slight explosive noise. I was satisfied that the invagination was then reduced, and that the diagnosis was correct.

The patient was properly placed in bed and immediately fell into a deep sound sleep, not waking for hours. Once or twice during the night he got up to stool, the motions being fluid, greenish in colour and very offensive. From this time the patient improved rapidly, the pulse (which I omitted to mention before) was, while the trouble lasted very rapid, being 135 to 140, and temperature 103°. Two days after the occurrence the child was up and walking about the house. No cause could be assigned for it. The child had not eaten anything out of the usual diet, neither had he been out of the house the whole day. In cases where the invagination is very high up, as in this case, I would lose no time in resorting to this procedure, if the tube of a stomach pump could be obtained, as I am

satisfied that no other known means would have answered as well.

Paper read before the Canada Medical Association at Niagara on the 6th August, 1874, by JOHN MULLIN, M.D., *Hamilton, Ont.*

DUPLICITAS MONSTROSA.

The mother of this monster was 21 years of age and has generally enjoyed good health, the only illness of moment since childhood having been an attack of confluent small-pox in April 68, from which she made a good recovery, without medical treatment. Married about two years, in Feb. 73 was delivered of a healthy well formed male child, since has enjoyed good health.

The last pregnancy has not presented any peculiar features, the labour pains began early in the day. having been preceded by irregular pains thro' the night and day previous. In my absence she was visited by Dr. Woolverton who found the os well dilated and the bag of waters low in the pelvis, after the waters escaped, the head presenting in the 1st. position, descended slowly, and at length was delivered, the body failed for a short time to follow, and it was found on passing the finger to the axilla that some peculiarity existed, it being very difficult to reach the axilla; after a short time the shoulders were delivered, and some force had to be used to deliver the remaining part. It was found that the difficulty arose from the presence of a second head which in delivery was bent upon the thorax and abdomen. The head first born was very livid, a slight effort to breathe was made after the delivery of the second head.

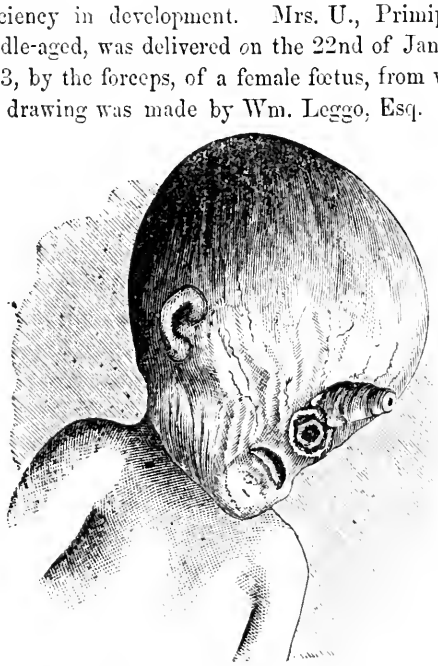
The drawing was made by Wm. Leggs, Esq., and conveys a fair idea of the appearance of the monster. A short time only was allowed for the examination and the following notes were taken:—The child is below the average size of the fœtus at full term. On exposing the sternum it was found composed of two sternums the manubria of which are separated above by the coalescence of the upper ribs; each sternum has the articulation for two clavicles, proceeding downward the two bones are united and consolidated together. The outer clavicle of each thorax was normal in position and form, as were the corresponding scalpulæ and arms, the inner clavicles were thrown upwards and backwards to meet their scalpulae. These clavicles, as well as the corresponding arms, were smaller than the outer ones. The adjoining scalpulae which are here presented were united at the lower part of the anterior borders. The outer ribs of each thorax were normal; the upper

five inner ribs of each proceeded from the spines upwards and forwards to the corresponding sternum, and near their sternal end formed a cartilaginous ridge. The sixth inner rib was short and united to the same rib of the other chest; the remaining inner ribs were very rudimentary, and consolidated forming a bony ridge between the lower dorsal spines.

The spinal columns were widely separated above, below they approached and became one by the coalescence of the pelvic bones, the vertebral canals however were distinct. The left-spinal cord was exposed, the nerves proceeding outwards were normal, those passing inwards smaller, especially towards the lower part of the cord, where they were quite rudimentary. The crania were not opened. The common sternum having been removed immediately underneath were the pericardia, quite distinct, by a partition formed by the serous lining of the two sacs. Each heart occupied nearly a normal position. The left heart was larger, and better developed than the right, the only peculiarity being a common opening for the venal cavæ into the auricle, and the foramen ovale was large, the valves were normal. The right heart was imperfectly developed, the only septum between the auricles being a small free band of muscular tissue about 1-16th of an inch wide, the two

ventricles were not separated by a septum, and all the valves imperfectly formed. On tracing the course of the aortae the right, much the smaller, was found to empty into the left opposite the upper lumbar vertebræ, the blood having been propelled through the lower extremities, chiefly by the force of the left heart. There were four lungs, the two inner ones separated in front by the hearts, in apposition in the posterior part of chest, the pleural membranes intervening; the inner lungs were on a higher level than the outer ones on account of the obliquity of the chest, they did not contain air. The diaphragms were united in the median line; the abdominal cavity single; the liver of large size entruding from side to side, there were two gall bladders separated by a considerable space in which was found a single falciform ligament. Two stomachs, one spleen near the left stomach, one large pancreas, one urinary bladder. Two small intestines united with each stomach, that to the right about two feet in length, the left about nine feet, these then united forming the remainder of the small intestnes, two feet in length, there was a single large intestine. The testicles were found in the abdominal cavity.

With Dr. Malloch's consent I bring before you another case of monstrosity—a cyclops—illustrating deficiency in development. Mrs. U., Primiparæ, middle-aged, was delivered on the 22nd of January, 1873, by the forceps, of a female fœtus, from which this drawing was made by Wm. Leggo, Esq.



The fœtus had evidently been dead some days. The cranial sutures were widely separated, and, on removing the skull-cap, a quantity of serous fluid, which had filled the ventricles and compressed the rain substance against the cranial walls, escaped. It was ascertained that the olfactory nerves, which passed through the cribriform plate, to the proboscis like member, were present; the optic nerves were represented by one small nerve, which piereed the skull opposite the central single eye, situated immediately below the proboscis. The nerves posterior to the fifth appeared normal. The body was kept, but during an absence of some months the preserving fluid evaporated and the specimen was spoiled.

On the 22nd of May, 1874, Mrs. U. was delivered of a healthy well-formed male child. Four weeks before her last confinement she was attended by Dr. Malloch, for a strangulated umbilical hernia, which was reduced by the taxis. For one year she has had an incarcerated umbilical hernia. The parents have not had syphilis. Mrs. U. has corneal opacity of both eyes, the result of phlictinular ophthalmia in childhood.

Address upon Midwifery, read 5th August, 1874 *before the Canada Medical Association.* By E. H. Trenholme, M.D., Professor of Midwifery University of Bishop's College, Physician to the Women's Hospital, Montreal, Attending Physician to Montreal Dispensary, &c.

The subject of the Uterine Decidua that I have ventured to bring before you upon the present occasion, is one that has occupied but little attention until within the last two or three years.

I feel some confidence and pleasure in this undertaking, inasmuch as I had the honor of giving to the profession the first paper upon the uterine decidna with regard to some of the phenomena met with at the bedside of the lying-in woman. However, it is not upon the plea of novelty that I ask your favorable consideration, but rather trust to secure your approval by presenting sound theories, and establishing facts, that will tend toward greater success in the practice of midwifery.

The external envelope of the fœtus, the only one supplied by the mother, is the altered mucus membrane of the uterine cavity. This membrane is glandular; but without entering upon the details of its physiological anatomy, it is found to contain, according to the late researches of Dr. G. Leopold, a rich supply of lymphatic glands.

It is well to bear in mind that the decidua is composed of the mucus membrane of the cavity of the uterus alone, and that at labor it is cast off, being severed from the mucus membrane of the neck which remains in situ. As to the changes occurring

previous to detachment, at menstruation and during gestation, Kundrat and Englemann have stated that "if we examine the process of menstruation, we will find that the cellular elements surrounding the tubular glands undergo rapid proliferation, especially those layers which are nearest to the cavity of the uterus, while the glands themselves participate in this activity, becoming thereby larger, and thrown into wavy folds, in order to accommodate themselves to this increased length. If there is no necessity for further development, a process of fatty degeneration commences in the most superficial layers, where the growth was most rapid, including the interglandular tissue, the epithelium of the glands and the bloodvessels—which may possibly be caused by the fact that this extreme activity of growth may have cut off, by the compression of the bloodvessels, the source of nutrition. The walls of the capillaries now rupture, and the menstrual hemorrhage is established, while the superficial layer of the mucus membrane is gradually cast off with the discharge.

But if fecundation has occurred, this retrograde process does not take place, but, on the contrary, excited by the stimulus of the growing ovum, the inner two-thirds of the mucus membrane now participate in the process, many of the cells in the interglandular substance become larger, and send out prolongations, while their nuclei undergo repeated division.

The orifices of the glands are separated from each other, while their calibre is narrowed by the advancing growth." The mucus membrane gradually loses its peculiarities of structure, and finally appears a transparent homogeneous membrane at term. The ovular and uterine decidua coalesce after the fifteenth week. At birth it has been observed that the uterine decidua hangs in shreds upon the ovular decidua. Virchow notes a case where the membranes after birth "were found to contain hypertrophed decidual elements, but also muscular fibre-cells; and he further remarks the case, in this respect, remains unique." I have no fault to find with Virchow's facts as to the actual presence of muscular fibre-cells attached to the decidua, inasmuch as I have time and again recognized the same condition under the microscope, and if that illustrious pathologist had deigned to read the paper, (I have already mentioned,) presented to the Obstetrical Society of London, in July, 1872, he would have found that the case related by him is by no means a unique one. The same author would have found that the character of labor that occurred in the case he records is precisely the same as a case noted by myself, given in illustration of the views then advanced.

But to return to the mucus membrane during gestation, it is self-evident that there is a sufficient contact with the muscular surface to preserve its vitality. Also that pathological changes supervene with the progress of gestation and finally detach it about the end of the ninth month, or 275th day. At this period the changes just mentioned cause the decidua, with its contents, to act as a foreign body inducing reflex action of the organ, and this ends in expulsion of the fœtus and after-birth. Thus we have a satisfactory answer to the question, "why labor supervenes at the end of the ninth month.'

This view, taught to my class four years ago, is now accepted by several writers on the subject, and will be, ere long, acknowledged by all teachers of midwifery. Dr. Karl Schrœder accepts and enunciates the views advanced by myself as just stated, and says, "that as pregnancy advances a fatty degeneration of the decidua takes place (which reaches its climax at the end of the tenth lunar month,) whereby the organic connection between the ovum and the uterus gradually becomes solved, and the ovum acts as a foreign body and irritates the terminal fibres of the motor nerve of the uterus, the sympathetic when this irritation has reached a certain degree, a corresponding reflex action, in the form of a contraction of the uterine muscular fibres, takes place, which contraction is repeated as soon as the requisite sum of irritation is again obtained; and this rotation continues, each successive contraction being intensified by the separation of the ovum, from the uterine wall, and therefore stronger and more rapid, unti the expulsion of the ovum takes place."

Abortion, like parturition, must be due to reflex action of the uterus, excited by the pathological condition of its contents. Admitting the correct; ness of this view, we must seek out the causes that endanger the life and development of the embryo, and not unfrequently jeopardize the life of the mother also. These pathologicel changes are, in my opinion, chidfly due to a diseased condition of the mucus membrane prior to conception. From this condition of things as a starting point, I think we can trace a large amount of uterine disorders, such as hyperplasia of the body and the neck, abrasions and ulcerations of the os and cervical canal, with their accompanying phenomena. I am aware that, on the other hand, it may be argued that many of the conditions of the uterus, as mentioned, may be regarded as the result rather than the cause of abor-

tion. Both views may be correct, and are alike worthy of careful consideration in dealing with abortions and in treating uterine diseases.

Apart from pathological conditions of either the uterus or the decidua, we may have the detachment or death of that membrane, with its consequent phenomena, as a result of direct violence, mediate or immediate, applied to the part. Such violence may cause rupture of a bloodvessel and effusion of blood; or general damage of the vessels resulting in stagnation of the blood supplied to the part, and consequent fibroid or fatty degeneration. Whatever the cause, when once vital union is destroyed, we have inevitable reflex action induced, which ends in the extrusion of the uterine contents. This result is what we naturally expect in the early stages of gestation, as up to the tenth or twelfth week the chorion and decidua are more or less intimately united and therefore generally expelled together.

At a later period the villi of the chorion atrophy except at the part involved in the formation of the placenta. The connection between the decidua and chorion is feeble, and we may expect the amnios (in some cases at least) to escape with its contents, without necessarily carrying the decidua with it. So far as I know, there is no reason why the amnios should not separate from the decidua, as well as the decidua itself from the muscular surface of the uterus. A case of this kind is recorded in the British *Journal of Obstetrics*, (American supplement, 1874,) as having occurred in Philadelphia, where "the decidua and placenta were left behind after the escape of the ovum and its clear membrane." Whether such an event is common or not is a point to be settled by further observation and research. It may be that the uterine and epichorial decidua in some cases are separated by fluid, the latter escapes with the ovum, while the former remains in situ. In practice the danger arises from the retention of the after-birth in those cases where strong vascular connection exists, the patent orifices of parts that have been detached permitting alarming hemorrhage. In some cases of retained decidua and placenta, their union with the uterus is so perfect that they are preserved from decomposition and retained for weeks and months. These exceptional cases, however, are not to be our guide in treating them, our duty is to entirely evacuate the uterine contents, as anything short of attaining this result leaves our patient exposed to danger. *With regard to premature delivery*, it is clear that the ordinary pathological changes that result in setting up uterine contraction at the end of the ninth month, are in these cases precipitated by some peculiarity of constitution, or diseased condition of the uterus or decidua. One prominent feature of these cases strongly favors this view, viz., that the safety of the mother and child also, is greater, just in proportion to the length of time that intervenes between its occurrence and the normal period of gestation. This lessened danger is due to the comparatively advanced changes (already mentioned) having taken place, whereby lesser violence, than in the early stages, is exerted upon the decidua to effect its separation and expulsion. In both classes of cases, however, the difficulty of detaching the after-birth should lead us to delay, as much as possible, the dilitation of the os, in order that the work of separation may be more perfectly accomplished by the uterine contractions. This view of such cases would also teach us, to aid by manipulation, over the uterus, the final uterine spasm which completes the expulsion of the fœtus or ovum. In ordinary labor, which will be referred to hereafter, this course will also be of much service in bringing it to a satisfactory close.

With regard to *prolonged gestation* we have a simple and satisfactory explanation, when we once recognize the separation of the decidua as *the exciting* cause of labor. In these cases there is simply a delayed maturation or fatty degeneration of the decidua. Among the lower mammalia the period of gestation varies very much within the bounds of perfect health, and there is no difficulty in accounting for such cases upon the hypothesis just advanced.

The same theory that accounts for prolonged gestation, also accounts for its occurrence within a lesser than normal period. Perhaps temperament has something to do in hastening or retarding the ordinary pathological changes.

Important and practical as the views expressed are, in both abortion and premature labor, yet it is chiefly as relating to labor at term that they are most interesting. Not only do we perceive the operations of nature in originating uterine contractions with their consequent results, but we have also placed before us a sufficient cause for many of the distressing and dangerous phenomena met with in the lying-in chamber.

In the decidual adhesions referred to, we see the cause of those imperfect muscular contractions which I have spoken of at some length, in the paper already referred to, which recently Dr. Athill similarly describes as "strong and quick; they do not gradually culminate in a strong pain and subside again,

but they are sharp, quick, and cease almost suddenly; and the intervals between the pains are long in proportion to the length of the pains." Again, "the short inert pains which prognosticate hemorrhage," call for the treatment urged by myself two years ago, viz., rupture of the membranes. This is usually enough without recourse to other aids, medicinal or mechanical, as it suffices to induce regular muscular effort by allowing the ovum to become elongated and the organ space for contraction. When adhesions are present they inflict lacerations of the muscular tissue at the points of union, and thus cause nerve irritation with rapid reflex action; and this quickened action expends its force to a greater or lesser degree locally, ere the whole organ has time to participate in one common effort. Hence, there is a lack of expulsive power, and painful and retarded labor. Time forbids going into the consideration of much that suggest themselves in connection with this subject; but there is one point I wish to bring before you. When the adhesions exist—as they most generally do—at the lower third of the cavity or around the internal os, we have a condition of things that is an effectual bar to powerful uterine effort, as well as to any progress towards expulsion. Even if the spasms are regular and strong, they must fail, inasmuch as the adhesions act in a mechanical way and effectually prevent dilitation of the os; while at the same time, the pains are expended without object on account of the mutual antagonism of the contractile forces. Failure must follow, inasmuch as there is the absence of the one essential condition of success, viz., a concentration of the expulsive powers of the organ toward the outlet. Such cases are always troublesome to the accoucheur, and tedious and distressing to the patient. There can be but little doubt many hours and days of sorrow could be averted by a knowledge of the conditions present and a timely proffer of the required aid. Fortunately, the difficulty, in most instances, is within reach, and the finger of the attendant is able to effect the desired detachment of the membranes from the uterine surface. When once this is done the liquor amni rushes downward and the bag of waters after filling the os, is driven forward like a wedge by the concentrated, and now powerfully expulsive, uterine effort, because such effort is directed toward the outlet.

The rapidity with which labor is accomplished after the correction of such irregularities is truly marvellous, and most satisfactory to both accoucheur and patient.

I am aware that, in some cases, the attachment of the decidua is beyond the reach of the finger. When this is the case, two methods of treatment are open to us. First, we can use the uterine sound—as a digital prolongation—and separate the adherent surfaces to almost any extent; or, second, we can resort to rupture of the membranes, and allow the fœtus to glide over the decidua, inasmuch as the latter fails to glide over the uterine surface as it does in normal labor.

Much more might be said, but I will draw your attention to but one point more, viz., the great advantage, with regard to both safety and time, that follows the rapid and complete delivery of the after-birth. These results, so much to be desiderated, can generally be accomplished by aiding the last labor-pain, that expels the child, by pressing quite firmly over the uterus with the left hand at the precise moment that the organ is contracting By this means our object is thoroughly accomplished. If it fails at for the moment, we should wait a little, and then repeat our efforts with the next uterine contraction, which, when gently and skilfully applied, seldom fails to be crowned with success. When it is desired to aid the uterus in expelling the after-birth, be careful not to twist or make strong traction upon the membranes; if you do, the result will be their laceration and partial removal. Besides this, frequently a sack of blood is left behind, which must be a source of great danger. I have no doubt that many cases of puerperal peritonitis and metritis are induced by such means; also the presence of such a foreign body will favor hemorrhage by dilating the organ Even the retention of the adherent membranes alone are not free from danger, as all will readily admit.

In conclusion, I would urge upon my fellow practitioners to cultivate an acquaintance with the diseases of women. No subject presents more inviting interest nor offers a fairer and fresher field for exploration and scientific enjoyment.

Progress of Medical Science.

ON THE ECZEMATOUS ERUPTIONS, AND ECZEMATOUS ASTHMA OF CHILDHOOD.*

By Wm. Stephenson, M.D., F.R.C.S., Edin., Physician to the Edinburgh Royal Hospital for Sick Children.

Whatever may apparently be gained in accuracy of classification by the general adoption of the more recent views of dermatologists regarding eczema, I fear we are in danger of losing much in the broader

* Read before the Medico-Chirurgical Society of Edinburgh, July 1st, 1874.

clinical aspects of the subject. That eczema proper, at one time or other of its course, may be papular, vesicular, pustular, or scaly is a clearly proved fact; and the widening of our conceptions from the narrow limits of vesicles to the broader basis which comprehends the manifold characters of the affection, and the recognition of a unity in these interchanging features, is a great advance. But to strain the idea of unity so as to sweep into this vortex of classification all the affections which may come under eczema used as a generic term, and to discard the older nomenclature, is to introduce error and confusion, which can only retard the progress of this branch of medicine.

This is specially felt in studying the subject in reference to children. Recent writers, under the influence of Hebra and his followers, now regard as mere varieties of eczema, what ought still to be held as distinct affections, and are thereby losing the more definite and practical views of the older writers, who speak of scald head or porrigo larvalis, of eczema and of impetigo. Each of these terms has become associated with distinct clinical affections, and conveys an idea to the mind not limited to mere external characters.

For the sake of this definite idea I prefer to retain the old names, however inaccurate they may now be. The opinions which determined their assumption are now immaterial, so long as we can convey a definite idea thereby; and this is the case when we speak of porrigo, of eczema, and of impetigo. But to say that a child has eczema capitis, may mean either porrigo or eczema proper; or to speak of eczema pustulosum conveys only the appearance of the affection at the time, we know not whether it may be eczema proper or impetigo.

Viewing these affections in their broad clinical aspect, and leaving out of consideration all reference to the complicating question of vesicles and pustules, there will be found sufficient differences to warrant us in regarding them as clinically distinct affections.

They bear a most important relation to age or development. Each of them is connected with a distinct period of childhood. It is this dependence upon development which distinguishes the eczema of childhood from that of the adult. Under its influence we see its character modified according to the age of the child: we find it obstinate under treatment at the earlier stage, and amenable or undergoing a spontaneous cure as the period peculiar to it draws to a close. Porrigo is much more limited in its duration, while impetigo belongs to a later period of development than the other two.

Porrigo and eczema frequently affect several members of a family, but not indiscriminately; the two I have never seen in the same family. That the tendency to one or other form is due to inherited peculiarities cannot be doubted. Although Hebra is sceptical of an inherited nature, his arguments are entirely against hereditary transmission, which is quite a distinct thing.

For purposes of prognosis and treatment, and for truth sake, I hold that the "scald head," the "porrigo larvalis" of Bateman, and the "achore" of Alibert, is essentially a distinct affection and is not to be confounded with eczema. It is limited to the period of dentition and the cutting of each tooth will be found to influence the eruption to a greater extent than in eczema. At the end of that process it shows a marked tendency to spontaneous and rapid cure; the cases where further prolonged being due to deteriorated health or want of attention. It attacks the head and face, but the skin of the rest of the body retains the soft and elastic characters of health. There is a greater tendency than in eczema at this age to the secretion of pus and the formation of the variety called eczema impetiginodes.

Impetigo is, as I have already said, an affection of a later period of childhood, belonging properly to the period of the second dentition, but to be met with from the third year upwards. The pustular elements predominate, the crusts have quite a different character from those of porrigo or eczema, and there is wanting the profuseness of discharge peculiar to them. Children, moreover, who have never had any affection of the skin are as liable to it as those who have.

Children are liable to a simple form of eczema, limited in extent, and amenable to treatment; to such affections the following remarks are not intended to apply. Such cases are more allied to the affection as it occurs in adults than the forms of which I am treating.

Eczema infantilis proper, is an affection which runs throughout childhood, from the earliest months of infancy to near puberty. It frequently, and in severe cases generally manifests itself as early as the second or third month. It shows a preference to attack the head and face, but the rest of the body is rarely left free from evidence of one or other of its manifold forms. Even in those children who suffer from the head affection in its mildest type, and where there may be a difficulty in determining between it and porrigo, the skin generally is liable to become dry and rough, and subject to prurigo or sealy eruptions in different parts of the body. In these respects it contrasts markedly with porrigo. In the severer forms the influence of age is very marked. Until some time after the end of the first dentition, the secreting element predominates, but the influence of dentition upon it is less marked than in porrigo. In the third year the head generally gets well, and the tendency in the rest of the body is to become scaly or papular, although cases are to be met with where the vesicular character is retained till a later period.

The sixth year I believe may be taken as the natural limit of this constitutional form of eczema. In cases that have continued to this time a decided spontaneous tendency to a comparatively healthy condition of the skin may be observed, or the affection proves much more amenable to treatment at that age. There is abundant evidence to show that the sixth year marks a developmental period which influences many other affections. After this time should the skin still manifest an unhealthy action it is generally

limited to the limbs. I have met with cases where children, who have suffered from eczema in infancy, have continued to be liable up to puberty to scaly and ecthymatous eruptions of the legs, and especially of the inner surface of the thighs.

Regarding this to be the natural history of constitutional infantile eczema, we have in its dependence upon development a ready and satisfactory explanation of its varying phenomena, and the recognition of this relationship is of importance as regards both prognosis and treatment. In the estimation of the results of our remedies it must be kept prominently in view. While acknowledging the spontaneous tendency to improvement as age advances, a counter fact has been impressed on my mind, especially in dispensary practice, and that is that nothing tends more to aggravate the affection and prolong its existence than leaving the disease to itself without proper local treatment. This fact of itself will explain many cases where the character of the eruption has outlived, so to speak, the natural course I have sketched above.

It has generally been observed by writers that children subject to general eczema are very liable to other derangements, and specially of the respiratory and alimentary tracts. Rilliet and Barthez remark: "It is in cases of very extensive eczema that we see, alternating with the diminution or aggravation of the eruptions, tracheo-bronchial or gastro intestinal catarrhal affections."

There is, however, a complication which, from its close connexion with the skin affection and its marked features, deserves special notice, and may be termed eczematous asthma.

Caillaut* mentions a case, but does not otherwise refer to the disease. "In one of the wards of the Hospital for Sick Children," he says, "there is at present under the care of Dr. Sée, a little boy six years of age, suffering from a dartrous affection of the face: every time the eruption disappears the patient is seized with a violent attack of asthma."

Dr. West, in the last edition of his work on the Diseases of Children (1874, p. 341), says: "In other instances the asthma has succeeded to extensive eczema, and so marked is the connexion between the two conditions that I have never known eczema to be very extensive and very long continued without a marked liability to asthma being associated with it. It cannot, however, be said that the two conditions always alternate, the asthma being worse when the cutaneous affection is better; but the radical cure of the eczema is usually followed, though often not till the lapse of three or four years, by the cessation of the liability to asthma.

In the *Edinburgh Medical Journal* for April, 1874, Dr. K. N. Macdonald records "a case of extensive chronic eczema of the face and extremities of seven years' standing in a child, complicated with spasmodic asthma, cured by pitch, soft soap, zinc and iodide of potassium."

While mentioning this case in connexion with the asthma, I would refer to a few of the details recorded as illustrating some of the points already noted regarding eczema. The affection began when the child was six weeks old. The face and head got well when about three years, but the rest of the body continued to be affected to a severe degree. The attacks of asthma began after hooping-cough, when about three. The condition of the child when Dr. Macdonald first saw him must have been pitiful indeed. The case is an excellent illustration of the effect of leaving the disease to itself in aggravating and prolonging its existence, and also of the success which accompanies proper treatment when employed at an age when the disease naturally shows a tendency towards recovery.

I have myself met with two well-marked instances of the affection. The first I saw only in consultation at a period when, it may be said, both the eczema and the chest affection had passed off. The boy at the time was six years of age, tall and well nourished. The eruption first appeared when three months old. From the description received it had been a well-marked case of general eczema. The skin, when I saw him, was dry and rough, but otherwise healthy. The character of the tracheo-bronchial affection is indicated by the mother's report of the opinions of various medical men who have seen him. "Some said it was bronchitis, others false croup, while others did not seem to know what to make of it." So sensitive at one time was the respiratory tract, that passing from one room to another without a respirator was sufficient to induce an attack. There was no relation between the improvement or aggravation of the skin affection and the chest. The improvement in the latter had gradually followed the natural disappearance of the former.

The second case is also a boy, now five and a half years old. The eczema appeared first on the cheek, at two months, spread over the head, and afterwards extended to the whole body. The face and scalp recovered by the end of the third year, and since that time a gradual improvement has been going on in the body. The eruption of each tooth was not accompanied by an aggravation of the disease. The skin of the body at present is healthy, but liable to become dry. The legs, however, are never free from a mixed character of scaly, papular, and at times ecthymatous eruption. There is always, however, a marked improvement when he has been kept in bed a few days by an attack of the chest affection.

The first bronchio-asthmatic attack occurred at two years and five months. It came on suddenly, and was so severe that the medical attendant waited upon him the whole night. They hardly expected him to survive, yet the next day he was sitting up in bed playing with a pet chicken. Since that time till within the last year the attacks have been very frequent, and of varying duration, seldom a fortnight passing without some degree of the affection. I saw him in one severe attack. It presented all the characters of bronchitic asthma, the lungs being filled with mucus râles and loud rhonchus, with severe spasmodic dyspnea.

* "Diseases of the Skin in Children." Translated by R. H. Blake. London, 1863.

When he came under my care the first point to to which I directed my attention was to determine the nature of the exciting cause of the attack. There was no indication of any metastatic relation between the skin and the chest. It had been observed that after laughing much the respiration became audibly wheezy. He was only allowed out of doors on fine days, but if the wind was in any way strong, he was liable to a difficulty of breathing at night. As, however, attacks often occurred without any apparent exciting cause, I directed a careful watch to be made regarding his food, with the result that he was always best when kept strictly on a simple milk diet. During the last six months, while attention has been paid to this point, he has only had two severe attacks, and in both instances an indiscretion in food could be assigned as the cause; and during this time he has been allowed to run out of doors with a freedom they formerly did not dare allow.

He had, under the care of the late Dr. Carmichael, been treated with all the regular remedies for the skin affection including arsenic, and his mother had bestowed the greatest attention in carrying out the treatment, but she cannot say that anything had any marked effect. Finding that there was a constant sibilant rhonchus in the chest, I prescribed two grains of iodide of potass. with one drop of tr. cantharides three times a day, and potash or Vichy water ad libitum. Under this treatment, with the regulation of the diet, he has had only two attacks in six months, and is evidently steadily improving. While believing that this treatment has not been without effect, I still keep in view that the age of the child is that when the greatest success may be looked for from the natural developmental tendency towards recovery. —*Obstetrical Journal.*

PROLAPSE OF THE UMBILICAL CORD.

In an article on this subject (*Amer. Jour. Obstet.*' Nov., 1873; Feb. and Aug., 1874), Dr. Engelmann' of St. Louis, gives his conclusions as to the cause and treatment of this dystocia as drawn from a careful examination of a large number of cases (365) occurring either in the Royal Lying in Hospital of the University of Berlin, or in the out-door department of that institution. Of these cases, 160 were observed very carefully from the beginning to the end, and pelvic measurements made. The frequency of prolapse was found to be 1 in 18 cases of labor. In this country, the frequency would be much less, since here diseases tending to produce a deformity of the pelvis do not abound as in Germany, where these observations were made. A prolapse of the funis rarely complicates vertex presentations, but is frequently found with false presentations, as the result however, not of the fœtal position, but of the pelvico deformity, which tends to produce both the abnormal position and the prolapse. Breech presentations are rarely complicated with prolapse, tranverse and shoulder presentations are much more commonly, and foot presentations oftener than any other. The position of the placenta near to the os favors the prolapse of the cord. The unusual length of the cord is probably favorable to the occurrence of prolapse, but cannot be ranked among the causes. The premature rupture of the membranes at an early period of labor is one of the most common causes which tend to favor a prolapse. The chief and primary causes, however, are due to the maternal parts. While a flabby condition of the uterus and a general weakening of its muscular power, as the result of too frequent child bearing, may tend to produce a prolapse, still the chief cause is undoubtedly to be found in a contraction of the pelvis. The flattened pelvis is the most common pelvic malformation found in these cases. Prolapse is somewhat more frequent among multiparæ than among primiparæ. It is rare that the cord prolapses *after* the rupture of the membranes; ordinarily, the accident occurs at the time of the rupture, although, occasionally, the cord may be felt presenting just within the still unbroken membranes. The prolapse usually occurs at the sacroiliac fussa, less frequently in the acetabular region. Very rarely is it found to pass down in any region occupied by the occiput, or directly behind the symphysis pubis. The danger to the child comes, of course, from the pressure to which the cord is subjected during the labor, a pressure which is greater in head presentations than when any other part of the child presents. A careful *post-mortem* examination of children, whose death has been caused *inter-partum* by compression of the prolapsed cord, shows no change which could be called pathognomonic. The death is the result of asphyxia, which may occur from many other causes. The prognosis in these cases is most favorable when the feet present. Next come tranverse and shoulder presentations, although these are far more dangerous than the first mentioned class of cases, and most dangerous of all are vertex presentations. The prognosis in breech-presentations is at least equally favorable with that offered by tranverse and shoulder presentations. In a primipara, the prognosis is much less favorable than in a multipara. The life of the mother is, of course not affected by the prolapse of the cord. It is possible, however, for a serious hæmorrhage to follow the premature loosening of the placenta in those cases where the cord is drawn over the head.

As regards treatment, many cases will occur in which it will not be desirable to leave the progress of the case to nature, nor will it be necessary to perform an operation. In these cases, attention must be given to the position of the mother during labor. She should lie on the side opposite that in which the funis has prolapsed. In cases where the prolapse has taken place in one or the other of the sacroiliac fossæ, the simply placing the mother on her hands and knees may be all that is necessary for the self-adjustment of the cord. Oftentimes, however, this postural treatment is more an adjuvant to other methods of treatment than a method on which we should place our sole reliance. Version offers the best chance for the child, and should be adopted in preference to either reposition or delivery by forceps: Chloroform has proved a valuable adjuvant in any

attempt to effect a reposition of the cord, and should be given so as to cause a complete relaxation of the muscular fibres. Reposition of the cord should be confined, with a few exceptions, to cases of prolapse occurring with a head presentation.—*Medical and Surgical Journal.*

THE AUTOMATIC MAN.

Under this appellation is given, in the *Gazette Hebdomadaire* of July 17, a curious case which has come under the observation of Dr. Mesnet, of the St. Antoine Hospital. A young man during the late war, had a portion of the left parietal bone, about eight centimetres in extent, carried away by a ball. Hemiplegia of the right side was the result, but this gradually disappeared. For sometime past he has been subject to attacks, lasting from twenty-four to forty-eight hours, attended by very extraordinary phenomena. During these, he seems to act like an automaton, walking continually, incessantly moving his jaw (*machonnant*), knitting his brow, and appearing absolutely insensible to all that surrounds him. Not uttering a word, he walks straight forward, and when he meets with an obstacle stops short, explores it with his hand, and tries to pass on one side of it. Surrounded by a circle of persons, he stops at each and endeavors to pass by the intervals formed by their joined hands, then turns back, comes in contact with the next person and resumes his round. All this time he never manifests the slightest consciousness, just as if he were in a state of somnambulism. He is absolutely insensible to pain, so that pins may be thrust through the cheeks or into the fingers, or very powerful electric shocks may be administered without the slightest sensibility being manifested. What, however, is very remarkable is, that by bringing him into relation with certain objects we are enabled to determine in him the entire series of acts which are correlated with the sensation thus aroused. Thus, if a pen be placed in his hand, he seeks for ink and paper and writes a letter in good hand, in which he speaks very sensibly about matters that concern him. If a leaf of cigarette paper is placed in his hand, he feels in his pocket for the tobacco, rolls up the cigarette very adroitly, and having found his match box lights it. If the match be extinguished just as it reaches the cigarette, he finds another, and that several times till he is allowed to light his cigarette. If, at the moment when the match is extinguished another already lighted is presented to him in its place, it is impossible to induce him to light his cigarette by the substituted match. He allows his moustache to become burned without offering any resistance, but will not employ the light thus presented to him.

Among the various experiments devised by Dr Mesnet, there is one which is particularly curious. The young man is a singer at concerts by profession, and if gloves be placed in his hands he immediately puts them on, and searches for paper. When a roll of this resembling music in form is given him, he places himself in the proper position and begins to sing. It would seem, in fact, that tactile sensation induced in him becomes the point of departure, and as if of escape of a series of acts correlated to their initial sensation—acts which he accomplishes automatically, without letting them deviate from their habitual and regular succession. Lastly, it is noted that, while in this singular condition, the patient steals all that comes within his grasp. If he touches any person, he feels for his watch pocket, and invariably detaches the watch and puts it in his own pocket, from whence it may be removed without his making the slightest opposition. The crisis once over, he has no recollection whatever of what he has been doing, and becomes again perfectly reasonable.

The questions that such a case must give rise to for the reflection of the physician and physiologist are striking. How, indeed, is such a fact to be characterized? And what idea is to be formed concerning the modifications of the functions of the nervous system which it exhibits? A no less interest must be felt by the medical legist, for evidently during these crises such an individual must be absolutely irresponsible. But, how under similar circumstances, are the facts to be ascertained.

What preceded is a mere sketch of some of the features of this curious case. Dr. Mesnet, armed with all the resourses derived from a consummate experience in the study of mental diseases, has had for some time under consideration, and will immediately publish a memoir upon the subject.—*Medical Times and Gazette*, July 25, 1874.

ON LACERATIONS OF THE PERINEUM.

Dr. Wm. Goodell, in the *Phil. Med. and Surg. Reporter* for February 21st, 1874, says: The immediate closure of the rent in lacerations of the perineum ought by this time to be fully recognized by the profession as a very important means for the prevention of future mischief to the reproductive organs. As I have elsewhere shown (*Transactions of the State Med. Society of Penn. for* 1873), and here take the liberty of repeating, the loss of every fibre of muscle in the perineum entails a corresponding loss of power in the floor of the pelvis, and a consequent impairment of support to the reproductive organs. The sustaining power of the vaginal column depends upon the integrity of its perineal abutments. It is the tonicity of the vaginal walls, and the pelvic connections of the womb, that mainly keep it in place. These, in a case of a torn perineum, may not at once yield, but will sooner or later; for air gains access to the womb, irritating and congesting it to such a degree that it ultimately prolapses from an acquired hypertrophy. Unless, therefore, the rent is simply cutaneous, or very slight indeed, it should not be left to nature. Further, it is far more rational to take advantage of the necessary confinement in bed after delivery, and to close the wound at once, while its surface is raw, and the maternal soft parts are comparatively numb and insensible, than to postpone the operation to a time when the woman shall be nursing, when the cicatrized flaps shall demand

quite a formidable operation for their denudation, and when a special confinement in bed for two weeks or more will be needed.

My own method is, immediately after the delivery of the placenta, to pass deeply two or more wire sutures, securing each one by merely twisting its ends together. In bad rents, the first stitch is entered not quite half an inch below the lower angle of the wound, and about an inch from its margin. When the sphincter ani is torn, the cutaneous points of entrance and of exit of the first needle should then be nearly on a level with the lower margin of the anal orifice, and the suture should pass around the whole wound. This purses up the tissues from below upward, and secures complete coaptation. Enough opium must be given daily to keep the bowels quiet for a week.

In severe lacerations the woman's knees must be kept bound together for a week, and her urine drawn off for three or four days. On the third or fourth day, but not earlier, lest the process of immediate union should be interrupted, vaginal injections of weak solutions of carbolic acid, or of the permanganate of potassa, are made twice in the twenty-four hours. These soothe the parts, and correct the bad odor of the discharges. Without reference to any special time, the sutures are removed as fast as they become loose, usually from the seventh to the ninth day. On the eighth or tenth day a seidlitz powder, or one dessert spoonful of castor oil, is given every four hours until an inclination to go to stool is urgent; then an injection is given in order to liquify the contents of the lower bowel. This method of uniting the parts, both in the immediate and in the secondary operation, after the cicatrized surfaces are denuded, I can warmly recommend, as I cannot recall but one case, and that a very unruly one of puerperal mania, in which there was failure in obtaining a very good union. It ought, however, to be stated, that in secondary operations superficial sutures should be placed between the deep ones, and that the latter should be clamped with perforated shot. In order, also, to pare each side of the rent with unerring uniformity after freshening the surface of one side, its exact print in blood can be got on the other by pressing the nates together for an instant. A very troublesome symptom in these cases is flatus. If it does not yield to valerian, a gum catheter should be very carefully passed up into the rectum.

Many lacerations are, in my opinion, owing to the very common mistake of making so firm a pressure upon the perineum as to prevent it from undergoing an equable dilation. The portion thus compressed cannot take its share of the general tension, and the strain is thrown on the fourchette. Further, the pressure of the hand, by obstructing the free circulation of blood, impairs the vitality of the perineum. Bruised and benumbed, it is no longer a living tissue, capable of responding intelligently, so to speak, to the requirements of the occasion—when to 'repel, when to solicit, the advance of the head—and this nice point nature can very generally determine far better than the physician. Again, the word "*support*," as applied to the perineum, is a misnomer. No "support," in the ordinary acceptation of the word, is afforded to the perineum by direct pressure. If such a method ever accomplishes any good, it is by retarding the advance of the head; in other words, by *supporting* the head through the interposed perineum, and not by supporting the perineum itself. Why not, then, support the head by pressure directly applied to it, instead of through a medium which requires perfect freedom from all restraint in order to undergo the requisite and inevitable amount of dilation? Finally a majority of the advocates of 'support" contend that it is most needed at the very moment of expulsion. But the woman, in the agony of the final throes, is very likely to jerk herself away from the hand of the accoucheur. Of course, then, the perineum, being abruptly released from counter-pressure, is the more liable to yield to a strain suddenly sustained, for which its fibres are unprepared. Obstetric teachers recognize this danger, and in vivid language caution the student against it.

Although I believe that in a vast majority of labors the perineum does best when let alone, yet cases do undoubtedly arise which demand an intelligent assistance; nor can the line of demarkation be always drawn between natural and morbid conditions. Whenever the head in an occipito-anterior position is too much flexed, the vertix bears on the perineal center, threatening perforation; whenever, in an occipito-posterior position, the head is too little flexed, the forceps are urgently needed. For cases of extreme rigidity, or of an under-sized vulval opening, ether will be found a potent remedy. Apart from a direct and retarding pressure upon the presenting part itself, the only manual aid that I permit myself to render is as follows: Insert one or two fingers of the hand into the rectum, the woman lying indifferently on her side or on her back, and hook up and pull forward the sphincter ani toward the pubes. The thumb of the same hand is then to be placed upon the foetal head, scrupulously avoiding all contact with the fourchette. For this method I claim the following advantages; (*a*) By pulling up the sphincter ani towards the pubes not only is nature imitated, which always dilates the anal orifice, but the perineum is brought forward without direct pressure, and its dilation is diffused over its entire surface, causing a corresponding relaxation of the strain on the posterior commissure, in the line of its raphe. In addition, its muscular fibres are crowded up to, and consequently strengthen, the line of greatest tension; just as a prudent general hurries up reinforcements to the point of attack. (*b*) The same force which dilates the sphincter ani compels the occiput to hug the pubes, and favors extension, especially if the fingers in the rectum are hooked over the prominences of the foetal face, or over the chin. (*c*) This aid is not liable to sudden interruption from the movements of the woman. (*d*) The thumb of this hand, together, if necessary, with the fingers of the free hand, can, by direct pressure upon the presenting part, restrain its too rapid advance, without exciting that reflex uterine action which is so frequently evoked by the irritation of

ontact with the perineum. (e) The circulation of he blood remains free; the nerves are not benumbed by a double pressure, and the perineum, therefore, continues in its natural condition, that of a living, elastic and sentient tissue. This method I ave more fully described in an essay published in he *American Journal of the Medical Sciences*, Jan. 871, p. 75. To it I beg leave to refer those of my eaders who are interested in the subject of the management of the perineum during labor.

Misdirected traction on the aftercoming head, iz., too much in a downward direction as the head s about to emerge, is very commonly followed by a ery bad rent of the perineum. Even in head-presentations, requiring apparently but slight traction, he use of the forceps will often occasion a slight ear in the vagina, which the passage of the shoulders prolongs into the perineum. From too hurried delivery, or from faulty traction, I have seen so nany bad lacerations following the use of this instrument, even in practiced hands, that I cannot withold the opinion that, in the majority of cases, nature an accomplish the final delivery of the head hrough the soft parts much better than the physiian. In the essay previously adverted to, I use the ollowing language, which the riper experience of hree years more has not induced me to change: 'Delivery by the forceps, even in skilful hands, will often produce laceration: for the head is liable o be brought down too quickly on the unprepared soft parts, and it becomes a very nice point indeed o determine the exact moment when delivery may be ended with impunity. The cautious physician is liable to be caught, as it were, on the center." He sees the perineum stretched out to a perilous thinness, and the fourchette almost cracking under the strain. In doubt whether the moment has arrived o raise the forceps-handles and turn out the head, or to depress them, and thus restrain its advance, he wavers, and in a twinkling the fibres part. On the other hand, the impatient physician is tempted to turn out the head before the parts are sufficiently dilated. Finally, what is still more frequent, at the last moment the physician's courage fails him, and he depresses the forceps-handles just as the head has begun to emerge; a course equally fatal to the integrity of the perineum." My advice, therefore, that, other things being equal, as soon as the perineum is well dilated, the forceps should, as a rule, be removed, unless the blades are so firmly imbedded in the child's tissues that their withdrawal requires a force which might hasten the delivery of the head. This practice, if not so brilliant, will, I believe in the long run be found much safer.

At the risk of becoming prosy on this subject, I wish to add my convictions that, through sentiments of delicacy, many lacerations of the perineum escape the notice of the physician. After the delivery of the placenta, he should, therefore, make it a rule to introduce the index-finger into the rectum, and the thumb into the vagina. By bringing them together he can estimate the thickness of the intervening tissue, and thus determine whether any extensive laceration has taken place. If a rent be discovered, he should decently inspect the parts. By daylight, this examination can usually be made without the knowledge of the patient. When candle-light is needed, he will be compelled either to make some excuse, or boldly explain his object.

STRICTURE OF THE URETHRA BY THE ELECTRICAL TREATMENT.

By A. J. Steele, M.D., St. Louis.

The attention of the profession has been of late especially called, and very justly, to a comparatively new method of treating strictures of the urethra, namely, by the use of galvanism. The ease of the application the slight inconvenience to the patient, and the rapidity and permanence of the cure, make it really deserving of a prominent place among the surgical advances of the day. As my own experience corroborates the favorable reports that have been made in regard to it, I cheerfully add testimony in its favor.

The form of electricity used is that of the continuous current, and tension is sought rather than quantity, so that many small cups are demanded rather than a few large ones. I have usually found that from ten to fourteen pairs of the zinc-carbon elements have generated sufficient electricity for the purpose.

The negative electrode is a metallic point pressed gently against the stricture; the positive electrode a moist sponge placed anywhere upon the surface of the body, though I have believed the action to be more energetic when it has been placed near the negative pole, as to the iliac region or thigh, rather than remotely, as to the leg or palm of the hand.

A metallic oval tip, connected to a wire passing through a gum catheter, is the form of bougie recommended, and which I have used, but I now prefer the ordinary conical steel bougie. A set, including all sizes, makes the convenience of application greater, and being silver or nickel-plated prevents oxidation.

The instrument is insulated to within an inch of the point by the application of a coating of collodion; Squibbs' flexible, I find well adapted for the purpose.* A *sene-fine* affords an eligible method of connecting the wire to the handle—not coated—of the bougie.

Two factors enter into the thoroughness and rapidity with which a cure can be effected, viz., the electro-motive force used, and the character of the structure to be acted upon. The softer, the more moist and vascular the stricture, the more readily will it be decomposed and absorbed; whereas extremely hard tissue will demand increased time and greater tension, and possibly, also, increased quantity. Though in regard to the latter I am prepared to believe that mistakes have been made, and failures recorded, from its injudicious use. Quantity gives a calorific effect, with rapid destruction of tissue, as in the case of the galvanic cautery, the scar resulting therefrom would be highly prejudicial in the instance of a stricture. It is rather the electrolytic action that is desirable, whereby the organic structure is disintegrated, decomposed. The negative pole attracts hydrogen, and gives an alkaline re-action when acting upon moist

* Ether will dissolve it off when desired.

animal tissues, chemically decomposing—dissolving the part, and doubtless, too, by its stimulant action, inducing absorption.

The situation and character of the stricture having been accurately determined, a bougie, prepared as above, and of a few sizes greater in caliber then the stricture, is introduced down to the obstruction and connected by its free end to the negative wire. The sponge, moistened with salt water, placed externally on the skin—the thigh or iliac region being convenient—is attached to the positive wire. It is best to commence with a single pair, and gradually increase the number of cups, as thereby the parts are more tolerant—a low power gradually benumbing, a high power unpleasantly shocking. If the sponge is shifted without being removed from the surface, the pricking or burning sensation ordinarily experienced will be lessened. The sensations of the patient will, to some extent, determine how high a power may be used; from ten to fourteen pairs, as before remarked, may be all-sufficient, if the battery is working well. The character of the stricture, also, necessarily enters into this question. A few moments' gentle pressure and the instrument is found to pass gradually on. Once well entered, the bougie is retained *in situ*, the action being continued for a few moments longer. The current may now be gradually diminished, and the wire disconnected, the instrument retained, and, if gentle force will accomplish it, pushed on into the bladder, If not interdicted by local inflammation, the operation may be repeated in a week or fortnight's time, followed up by the careful and judicious use of bougies. In some cases one application is sufficient; in others several seances are required, depending on the character of the stricture.

Results have been most satisfactory. Strictures, accompanied with incontinence of urine, gluty discharge, irritability of bladder, painful micturition, etc., being entirely removed and rapidly cured.

Danger in this operation is reduced to a shadow, if too great quantity and too prolonged application are avoided. Care, also, in the after use of bougies is to be regarded.

While there is much of merit in the old ways let us not be too chary in trying the new—*St. Louis Med. and Surg. Journal.*

A NEW SIGN OF PREGNANCY.

In the *Annales de Gynecologie*, March 15, 1874, M. le Prof. Pajot describes a new sign of pregnancy, which he calls "le choc fœtal," or the fœtal impulse. The sensation it conveys to the hand of the person making the examination is similar to that conveyed by ballottement; but it differs from ballottement in being produced by an active and spontaneous movement on the part of the fœtus. It is available before the other certain signs, and is therefore most valuable in cases of doubtful pregnancy at the third or fourth month. Of course it is not always to to be felt, and this may entail on the patient the unpleasantness of several examinations.

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EDITOR:

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PHYSICIANS AND DRUGGISTS.

Some time ago the profession were accused by a one-sided correspondence in the daily press, of blackmailing the public.

The druggists who were outside the pale of medical patronage naturally were opposed to the percentage given on prescriptions as tending to lessen their own business. Without entering into the question of its being either right or wrong, we consider that the druggists themselves are to be blamed for the existence of such a system. We would say however, that in no case is the public subject to blackmail on the part of physicians; but rather the other way, for druggists charge the same for a mixture on which no percentage is paid, as for one on which it is. Now the relations of the Medical profession to druggists are somewhat peculiar, each have duties to the public and to each other which should be more sharply defined so as to permit of no encroachment from either.

Physicians have no right to require their patients to buy drugs at any other store than that which they are accustomed to deal at; provided the family chemist is honest in his dealings and furnishes pure drugs, nor has he the right to interfere except upon stronger grounds than personal preference, or decry the medicines furnished unless he believes them to be of inferior quality. So much for the physician; but what shall be said of the druggist? So far as our experience of them extends, and it is somewhat extensive, many of them are unmitigated quacks, who injure the general standing of their fraternity, bring upon the whole body the distrust of the Medical profession, and cause the latter to deal with but one whom they can trust and send their patients to. Many physicians decidedly will not permit their prescriptions to go to certain druggists, for they have found by experience that their patients generally received with their mixtures additional advice as to its virtue in their case or the possibility of something else being better. In one instance where a grain of quinine had been prescribed every four hours, the

ispensing clerk officiously informed the parties that ne dose was sufficient for 24 hours. Now it is the usiness of the druggists to prepare and compound rugs, to know their general properties and doses but ere they must stop. The physician should write his rescription plainly and also the directions for use, nd should an extraordinary dose be ordered, he hould state plainly that it is so intended. The druggist should dispense it precisely as directed, vithout any comment or not put it up at all. Of ourse if there should be an obvious mistake the pre- cription should be returned for correction. It is well known fact that but few druggists are suffi- iently honest to carry out this simple duty. This s said advisedly, for numerous instances have occur- ed to prove the fact. Cheaper medicines are sub- tituted for those ordered or if a drug should not be n stock another one is used instead, without the sanc- ion of the prescriber, because the dispenser thinks t will do as well. We once wrote a prescription. mong the ingredients of which was a certain ex- ract, then newly ordered in the Pharmacopœa, and vhich we had doubts of its being in the city. That prescription was put up by a druggist and we alled the same day and asked for the extract but ound they had none. To test the matter, that ame prescription was taken to more than half a lozen chemists with a like result; one chemist alone ad the honesty to say that it was impossible to btain in the city one of the substances, and re- uested that the prescription be taken back to see f another drug would answer. Again in some ases entire prescriptions have been changed and omething which the druggist thought better substi- uted, accident alone calling attention to the fact. Patients are aware that this does occur, and many prefer that the physician would dispense the medi- ine. We have been shown within the past few days, a mixture which ought to have been a repetition of me previously taken, but which was so markedly lifferent that the patient could not help observing t. There is another practice common to druggists, vhich is probably the meanest of all, and that is the abit of passing themselves off as Doctors, giving ad- ice and prescribing medicine. Surely medical edu- ation is cheap enough and the opportunities for its tudy are available to all. Such practices are tan- amount to an acknowledgment that they have not ufficient brains to become physicians and therefore ape the doctor. Even if the medicine is simple, and ccording to their opinion cannot do harm, is no ex- use; for how can they know whether harm will nsue, when they cannot know what is the matter with the patient. Many of them go farther than this, for we lately assisted in operating in an aggra- vated case of paraphymosis which had been treated by one of these self constituted doctors, who expected to remove the strangulation by means of a lotion and encouraged the man to persevere in its use, though the apparent danger of losing the glans was so great as to induce the patient to seek other advice. One other point deserves some attention, and that is the high price charged by druggists for medicines. People of humble means find their druggists expen- ses equal to, if not more, than the physicians bill, The enormous profits on some things is unreasona- ble. For instance, a patient who was leaving the city, was given a prescription containing Zinci' sulph. and tr lavandule co., for which he was charged 50 cents; some time after he wrote to say that he had learnt a dodge. Being acquainted with Latin, he asked for the ingredients separately and in English, the result being as he stated that he had paid exactly 40 cents for eight ounces of water. There is a manifest absurdity in having to pay as much to the dispenser of a prescription as to him who writes it, thus making no distinction between two different services. But this is not all, the drug- gist receives his pay at once the doctor not for months and often not at all. We might enlarge upon these abuses, but having said sufficient to ex- pose these evils, trust that the pharmaceutists in our midst who are working for the elevation and education of druggists will turn their attention upon these matters and correct them. We are decidedly in favor of pharmacists managing their own affairs, and hope they will obtain such powers that will enable them to examine and control those engaged in their business. It is also time that the farce of me- dical boards examining apothecaries for license should cease, and that properly qualified Colleges of Pharma- cy should exist. The duty of such Colleges is to produce a class of educated men who will be able to manufacture and inspect drugs for themselves, and the drug store will become a laboratory for scientific research instead of being a place for the retail of fancy goods and patent medicines. By defining the duties of the pharmacist and excluding those who are not qualified to dispense, a great boon will be ob- tained by the medical profession. Less uncertainty will exist as to the action of drugs. The physician and druggist each should work for one end. The first to prove the therapeutic value of drugs, the other to prepare them of such uniform quality and purity as to render observations reliable. We believe it to be the duty as well as the interest of the pro-

fession to leave such matters to the control of pharmaceutists and thus get rid of the onerous task of dispensing their own medicines, whilst at the same time the druggist should not charge more than what is right for the dispensing, or feel pulses over the counter, but leave the difficult duty of prescribing to those who are specially educated for it.

One other practice should also be condemned. It is impossible to combine the duties of both properly, and yet we have in our midst men who practice as physicians and at the same time superintend drug stores. Such hybrid combinations are injurious to both parties, and we trust before long stringent means will be used to prevent them.

ANTI-VACCINATION.

As we stated in our last issue, the anti-vaccinators, headed by Dr. Coderre, had discovered another supposed case of inoculation of disease by vaccination, and that photographs were being pulished. These latter have since been exposed on our street corners, and were of such a character as to lead to the belief that they were taken after death, though the child is at present living and in good health.

To prove whether this child had received any injury a public meeting of physicians was called, at which there were present a large number of medical gentlemen, some of them being well-known influential members of the profession. We regret that all the profession were not invited, many not knowing of the meeting, as there would have been a larger majority in favor of the resolutions adopted. The anti-vaccinators were in full force, and certainly did not represent many of any ability. The meeting was held in the Jacques Cartier School, on the 15th of September. Dr. Hingston presiding.

The Chairman stated the objects of the meeting, as represented in the circular addressed to each member of the Faculty, which were to consider and pronounce judgment in the case of the child (Labelle), of which use had been made by Dr. Coderre to prejudice the public against vaccination.

After considerable discussion, in which several physicians who had seen the child took part, the Chairman ordered the child to be brought before the meeting. This being done, and all present having availed themselves of the opportunity thus afforded them of satisfying themselves as to the aforesaid phenomena on the body of the child, it was proposed by Dr. G. V. Campbell, seconded by Dr. Rottot:

That, after having carefully examined th arm of the child Labelle, vaccinated by Dr. L rocque in June last, we are of opinion that fro the appearance which the arm now present there has been no extensive destruction of tissu nor any evidence of any injurious virus havin been introduced into the system of the child and that the scar presents the ordinary appea ance of healthy vaccination.

The motion was carried by a majority of 4 against 18.

The following resolution was then propose by Dr. Fenwick, seconded by Dr. E. Robillard

That, in the opinion of this meeting, th action of certain medical gentlemen in publicl circulating photographs to represent allege injurious effects of vaccination, is strictly unpro fessional and highly censurable, as calculated t mislead the public, and is adverse to the interes of science.

The vote on this resolution was identical with the former one, with the exception of the addi tion of Dr. Gariepy, who had voted for the amendment, and Dr. Bell, who had come into the room in the interval.

Several gentlemen addressed the meeting, but the main gist of their observations is embodied in the resolutions which have been recorded.

After a vote of thanks to the Chairman for the exemplary manner in which he presided, the meeting came to a close.

One of the photographs exhibited was an highly colored imaginary sketch of the appearance of a supposed transverse section of the arm. It was also elicited that a tight bandage had been applied, which, with the cachectic condition of the child, had induced extensive suppurative action.

One is not surprised to find anti-vaccinators among the ignorant, who do not understand anything of the matter, and therefore ascribe scrofulous eruptions to the introduction of vaccine, nor can we blame them for acting up to the conviction. In one case which came under notice, a mechanic, who had been fined several times in England, and once here, was so opposed to vaccination that he preferred imprisonment rather than have it done; but, on having a thorough explanation of its benefits, he had his six children at once vaccinated. Now, it is just such men as these anti-vaccinators who cause this

difficulty, and who, being blinded by their own conceit, are either ignorant of, or else shut their eyes to the mass of recorded evidence, in order to enjoy a brief notoriety. Argument is of no use, for they are not open to reason, and we regret that a different course was not pursued to stop their folly. As the vaccinator in this case was an health officer and performed the vaccination in behalf of the city, it was the duty of the Board of Health to institute an inquiry, and on proof that no ill was done the child, to prosecute these parties by law. No other way will stop them from trumping up case after case to the great detriment of public health.

In the meantime we would recommend these anti-vaccinators to emigrate to the Western Coast of India, where they will find congenial companions in the Koragars, who worship a very hideous deity called Mari Amma, or the Goddess of Small Pox.

IMPERIAL HONORS.

A writer in the "Canada Medical and Surgical Journal" makes the suggestion, that the Honor of Knighthood should be conferred upon Dr. Geo. W. Campbell. No one is better entitled or more worthy of such dignity. That such is the general opinion of the profession there is no doubt, and judging by the fact that the suggestion has been readily mentioned by the public press, we infer that the public also coincide with us. No name connected with the medical profession is more widely known or respected throughout the length and breadth of the Dominion and it is therefore superfluous for us to add anything to what has been said. Titles are but sparingly bestowed upon members of the profession and generally the recipients of such favors are more or less connected with the Royal Court. Statesmen and Generals receive honors, their work being of such a nature as to command public attention, while that of the physician or surgeon is done quietly, though their services to mankind are probably greater. We do not think that in this case the title would add anything to the esteem in which Dr. Campbell is held, but as a mark of approbation for a lifetime of usefulness, it would be an encouragement for others to follow his example. We therefore with others would be glad to see the suggestion carried out.

The introductory lecture at McGill was delivered by Prof. McCallum, on the 1st of October, at 3 o'clock in the afternoon. We regret being unable to obtain a report of the lecture in time for publication.

Dr. Brosseau delivered the introductory lecture at L'Ecole de Médicine et de Chirurgie on behalf of the Medical Faculty of the University of Victoria, on Thursday October 1st, at 3 p. m.

A new journal called the Archives of Dermatology will be issued on the 1st of October and continued quarterly thereafter. It is to be devoted principally to skin and syphiletic diseases but will also contain a digest of the current literature. The work is of American origin and is edited by Dr. L. Duncan Buckley of New York.

We have received the seventh annual announcement of the Montreal College of Pharmacy. The session was opened on the 1st of October, and will continue till the end of March. The lecture room is situated at No 628 Lagauchetière street, and the lectures commence at 8.30 p.m., so as to enable drug clerks and others to attend. Dr. Kollmyer lectures on Materia Medica and Dr. Shaw on Chemistry; each giving two lectures a week. We wish the College every success, and trust that their efforts to raise the standard of chemists and druggists will meet with the desired reward.

PERSONAL.

The announcement is made that Prof. Rokitansky, of the University of Vienna, whose name is so intimately connected with Pathology, is about to resign his chair, and it is probable that Prof. Recklinghausen, of Strasburgh, will succeed him.

Dr. J. W. Whiteford, of Belleville, (M.D. McGill, 1873), has successfully passed the examinations at Edinburgh, and obtained the L.R.C.P. Edin., and L.R.C.S. Edin.

Dr. William Macdonald, (M.D. Bishop's College, 1873), has returned to Montreal after a absence of three months. Dr. M. has been travelling in Europe, spending some time in London, Eng., and has had a very pleasant trip.

Dr. DeWolf, of Halifax, was in the city for several days during the past month.

It is rumored that attempts are being made to establish a Homœopathic school of Medicine in Montreal, but the difficulty of obtaining properly qualified Professors from among the few Homœopaths in the city prevents its formation.

A new dispensary has been opened in Fullum street by the nuns. It is stated that the medical men in the neighborhood do not regard it with favor.

Dr. John Caulfield, a graduate of Detroit College, but formerly a student of McGill College, is now in practice at East Saginaw. Some of his old classmates will feel interested to hear that he is meeting with success.

Dr. O. C. Edwards, (M.D. McGill. 1873), has commenced practice in this city, and has opened an office in St. Antoine street.

Dr. Tabb, late of Montreal, has entered into partnership with Dr. Gilbert, of Sherbrooke.

The *Medical Times and Gazette* states that the patient on whom Prof. Bilroth performed extirpation of the Larynx for Cancer, with success on the 31st of December last, has since died at his home in Bohemia, the disease having returned.

There are 182 doctors of medicine in the city of Montreal and environs. Of these 165 reside in the city proper. All are not in practice, however; some act as insurance agents; others conduct apothecary shops or are in some mercantile business. Among them there are Specialists, Electricians and Homœopaths. A few have retired from general practice and now act as consulting physicians. About 150 are in general practice, being about 1 in a 1000 of population, which does not, however, represent the division of practice. Some of the best known having such a large connection that they refuse to attend new patients, while others are doing comparatively but little business.

REVIEWS.

Ligation of Arteries. By Dr. L. H. Farabeuf, *Aide d'Anatomie à la Faculté, Paris. Translated by Dr. Jackson, of Domville, Kentucky. Philadelphia, J. P. Lippincott & Co.; Montreal, Dawson, Brothers.*

This is an operative manual designed to aid the student and young practitioner in understanding all the steps necessary to ligate an artery. It explains much that is left obscure in the ordinary text books, and also gives a description of torsion and compressson. In reading this excellent treatise the impression is left that it should be in the hands of every student while in the dissecting room, so that he may become familiar with the difficulties of ligating each artery. Such operations are generally urgent, and are, therefore, dreaded by most practitioners; but a careful perusal of this work, and following its details upon the dead, will give that confidence necessary for operating on the living. We, therefore, recommend it to our readers as being practical throughout, and one which will show them how to operate.

The following works have been received from the publishers, and shall receive an early notice:

The Complete Hand-book of Obstetric Surgery; or, Short Rules of Practice in every Emergency. By Charles Clay, M.D., late Senior Surgeon and Lecturer on Midwifery, St. Mary's Hospital, Manchester, England. 8vo. pp. 328.—Philadelphia, Lindsay and Blakiston, 1874.

Surgical Emergencies, together with the Emergeneer's Attendant, on Parturition and the Treatment of Poisoning. By W. Paul Swain, with eighty-two illustrations. 8vo. pp. 189. Philadelphia, Lindsay and Blakiston, 1874.

Materia Medica, for the use of Students, By John B. Biddell, M.D., Professor of Materia Medica, Jefferson Medical College. —— —— Sixth edition, revised and enlarged. 8vo. pp. 435. Philadelphia, Lindsay & Blakiston, 1874.

A Practical Treatise on the Diseases of Women. By T. Gavelin Thomas, M.D., Professor of Obstetrics Col.: Physician and Surgeon, New York, &c., &c. Fourth edition, pp. 801. Philadelphia, Henry C. Lea, 1874.

BIRTHS.

At Bury, Compton, on the 17th September, the wife of Dr. James McNeece, of a daughter.

MARRIAGES.

At Ste. Marthe, Wednesday, the 9th instant, by the Rev. Mr. S. Blyth, Mr. J. L. Telesphore Valiquette, of Montreal, to Miss Marie Antoinette Denise Le Pailleur, eldest daughter of Alexander L. Le Pailleur, Esq., M.D.

At St. Vincent Church, Montreal, the 23rd inst, by Rev. Mr. L. M. Lavallée, Mr. J. Charles Duckett, second son of Wm. Duckett Esq. of Coteau Landing, to Mary Jane Angel, Mount, eldest daughter of J. W. Mount, Esq., M.D., all of this city.

On Tuesday the 29th inst. at St. George's Church, by the Very Rev. the Dean of Montreal, assisted by the Rev. James Carmichael, B.A., Thomas, eldest son of the late John Firth, Esq., of Holt House, Abbeydale, Sheffield, England, to Alice E., second daughter of R. T. Godfrey. Esq., M.D., of Montreal.

On the 8th of October, at the residence of the bride's step-father, Fred. Muller, M.D., by the Rev. Dr. J. Cordner, assisted by the Rev. E. F. Hayward, Edward J Ermatinger, Esq., son of the late Col. E.W. Ermatinger, to Mary J. Alger, daughter of the late Cyrus Alger, jun., of Boston, Mass.

Original Communications.

Extirpation of a Fibro-cystic Tumor of the Uterus, with the latter and its appendages, performed on the 12th of June, 1874. By E. H. TRENHOLME, M.D., B.C.L., Professor of Midwifery and Diseases of Women and Children, University of Bishop's College; Attending Physician to the Women's Hospital of Montreal. &c., &c.

Read before the Medico-Chirurgical Society of Montreal.

Miss Isabella Buchanan, aged 33 years, born in Brantford, Ontario, was examined by me for the first time, in October, 1873, presenting a healthy appearance, of medium height and dark complexion, but somewhat spare in flesh.

On special examination, a large globular tumor occupied the abdominal cavity, the abdominal walls very thin, and the skin over the tumor marked by numerous silver lines due to extreme distention; a dark line extends down the middle, and the superficial veins dilated; areolar of both nipples dark and well marked. The tumor is firm, appears non-adherent, as it can be freely moved in all directions.

Percussion elicits a dull note, and a small collection of fluid detected at upper part. Ausculatory sounds nil. Tenderness on pressure at the sides. Measurements are as follows:—

Girth at umbilicus, 41 inches; ensiform cartilage to umbilicus, 9 inches; from latter to symphysis, 11 inches; from right ant. sup. spinous process to umbilicus, 10½ inches; from left ditto to ditto, 9¼ inches. External organs of generation normal. Vagina greatly elongated and pointing to left side. Uterus cannot be brought into view with the speculum, and also beyond reach of finger, except when standing with the left leg somewhat elevated. The uterus and right ovary can be felt on the left side of abdomen, over the tumor, before and during menstruation; left ovary not felt. Rectum and anus normal. The menses began when fourteen years old, and have always been regular, but painful, till the appearance of the tumor, since which time they have been free from pain. During the menstrual flow cannot lie on the left side; at other times can rest equally on either side. Urinary organs in good order. The bladder is expanded upwards above the pubes, and when the urine does not flow freely it is readily expelled by pressure of the hand. Digestion and appetite good; bowels regular, but for some months has been troubled with flatulence. With the exception of an occasional attack of palpitation of the heart there is no derangement or disease in the other organs.

Nervous system is in good order.

Respiratory system.—Has a slight cough and shortness of breath when troubled with flatulence, but not at other times.

Circulatory.—Says she "is liable to palpitation of the heart, as is her sister also;" but, at the present time, its impulse is slightly feeble, but otherwise regular and normal.

HISTORY.

Is of healthy parentage on the side of both father and mother; all her relatives are in good health.

The present ill health began in September, 1870, at which time she had an attack of what her physician called "gravel and inflammation of the bladder." After recovery from this sickness, she felt a growth in the left groin, which gradually increased in size. In 1871 the tumor grew rapidly and extended toward the right side. During the year had a slight leucorrheal discharge, but, otherwise, suffered no inconvenience.

In February, 1872, had an attack of menorrhagia, which recurred again in May of the same year, and three or four times since; the last of which was in July, 1873.

PROGRESSIVE SYMPTOMS.

Patient continued in good health from July, 1873, to the end of January, 1874, when an offensive vaginal discharge made its appearance, which gradually increased in quantity till the last week of the following month (February), when she had what she called a congestive chill, that lasted for about half an hour. A high fever, for three hours, was then followed by profuse perspiration that lasted nearly half a day. After this had a severe headache that lasted a week. The patient's flesh and strength now rapidly failed. Night sweats set in; the vaginal discharge has continued, and is of a highly offensive odor. The menstrual flow is always preceded and accompanied by abdominal distention and intense pain. There are also continuous nausea, a fœtid exhalation from the skin, and a fœtid breath.

Diagnosis.—That the tumor is fibro-cystic, involving the body of the uterus toward the left side; that the ovaries are intact; and that a communication exists between the cavity of the uterus and a suppurating cyst of the tumor.

Prognosis.—From the decided failure in flesh and strength, since seen last fall, the presence of a suppurating cyst, the increasing agony and distention of the abdomen during every monthly period, the incipient urinary disorder, and the depression of

spirits, it judged that the present state of things could not last more than two or three months before death would supervene. When seen during last fall, I refused to operate so long as she could enjoy life, and as she had reached the limit of that period I now, at her earnest solicitation, concluded to remove the tumor, together with the uterus and its appendages. The condition of the urine indicated the administration of carbonate of lithia (effervescing) for some days before operating.

OPERATION.

Reported by Mr. John T. Davis, medical student.

On the 12th of June, 1874:—

The patient having been laid on the table, Drs. Gardner and Perrigo administered first chloroform and then ether. Anesthesia was quickly produced; the patient passing very rapidly into a tranquil sleep. The pulse and respiration were at this time pretty fair.

At 12.15 p.m., assisted by Drs. Hingston and Kennedy—and in the presence of several other physicians—the operator commenced by making an exploratory incision in the mesial line to the extent of about six inches—the upper end of the incision reaching to within one inch of the umbilicus. The subjacent tissues were then carefully divided on a director, but their very tense condition, and the consequent difficulty in picking up each layer, occupied a good deal of time. The sheath of the rectus was opened close to the linea alba, and afterwards the posterior layer and subjacent fascia. The abdominal parieties were found to be exceedingly attenuated. A small portion of the peritoneum was divided and a director placed beneath, until the cavity was opened the whole length of the previous incisions. It was found that the peritoneum was extensively adherent to the whole surface of tumor. During this part of the operation many small bleeding points appeared, but were perfectly controlled by th unsparing use of Peans' forceps. The adhesions on the anterior surface being now all separated, Wells' trocar was introduced at a point where there seemed to be indistinct fluctuation, but no fluid obtained. It was then found necessary to extend the incision 2½ inches above the umbilicus, and downward to within 2 inches of the pubis, in all making an incision of about 13 inches in length. The divided abdominal walls having been relieved of their pressure, were pressed outward and below the level of the tumor, hugging closely to the surface, by which means the tumour forced to protrude from the abdominal cavity. The adhesions on its posterior surface were found to be numerous.

The tumor was then firmly grasped by the operator, and elevated from below upwards and forwards—adhesions were separated, and the uterine ligaments divided by the actual cautery. Whenever it became necessary to ligate vessels that were divided during the operation, fine flaxen carbolized ligatures were employed, and the ends cut off near the knot. About forty such ligatures were used and left in the cavity of the abdomen. The separation of all adhesions, among which was an attachment of the bowels about ten inches in extent, being accomplished, the tumor was elevated, and the vessels by which it had been nourished—passing from behind forwards to the posterior surface of the uterus just about the junction of the fundus with the cervix uteri, and on the left side—were secured; and strong carbolized linen ligatures applied and cut short, and the vessels divided. A triangular piece of peritoneum, three inches long and two broad (at the wide end) was torn from its connections—by the weight of the tumor—and removed. The tumor was then drawn upwards and backwards to bring into view the cervix uteri, which was found much elongated. The position of the ostium externum was next ascertained by external palpation. The vagina was observed to be much elongated likewise. A bougie about three-fourths of an inch in diameter was then introduced into the vagina, so as to elevate the pedicle, which was now transfixed with a long curved needle armed with a strong hempen ligature. The two halves were then securely ligated, and the wire écraseur applied about one-third of an inch above the ligatures. A few revolutions of the handle of that instrument sufficed for the constriction of the pedicle, which was then divided just above the constricted portion, and the tumor thus extirpated in two hours and fifteen minutes from first incision. The parts in the neighborhood of the wound were now carefully sponged, and the abdominal cavity cleared of clots of blood and other foreign matter—carbolized sponges being constantly used. Considerable oozing, deep down in the right inguinal region, soon became apparent. It was ascertainined to be arterial, and the bleeding vessel was secured and ligated—the ends of the ligature being cut off short near the knot, in this as in every other instance of ligation. The edges of the wound were brought together and closed by eight deep sutures of strong carbolized linen, and superficially by the same number of horsehair sutures. The pedicle was transfixed by two

steel pins across the abdomen, the one in the centre and the other in the upper edge of the pedicle embracing the incision on each side; the écraseur was left as an additional security to prevent removal of the pedicle from between the edges of the wound. The cut surface of the pedicle was then smeared over with carbolic acid and perchloride of iron. The wound was covered with two layers of carbolized lint and secured by broad straps of adhesive plaster, passed from side to side. Cotton wool was placed over the abdomen and secured by a flannel bandage about ten inches wide. The patient's pulse at this time, as well as about half an hour previously, had become very shabby, alternately flagging and reviving. Brandy was administered about every ten minutes, until the pulse grew stronger and fuller. She was not removed from the table until reaction had commenced, when she was put to bed—the bed-linen having been previously well-warmed—and hot brick applied to her feet. She was then warmly covered with blankets. The temperature of the room had been made sufficiently warm and comfortable by a fire which was kindled for the purpose of heating the cautery irons.

AFTER TREATMENT AND PROGRESS.

After being comfortably placed in bed, a quarter grain dose of morph. mur. was administered, against my judgment, at the urgent advice of some medical friends. Slept for a few moments at a time up to 4 p.m., when vomiting supervened, for which tincture of aconite was administered every hour with good effect.

At 10 p.m. drew off ʒ ij of urine, and as the skin was acting well and temperature and pulse high, omitted aconite, and gave brandy and veratrum viridi. Vomited but once since four o'clock.

13th, (2nd day,) 1 a.m.—Slept quietly for the last three-quarters of an hour; wind in bowels beginning to cause trouble; slight nausea and belching of wind. 4 a.m.—The medicine causes nausea and is omitted; removed ʒ iij healthy urine. Has slept more than half the time since 1 o'clock. At 5 a.m. vomited, and at 6 a.m. nausea continues; skin acting freely. 7 a.m.—Took some milk and water; removed ʒ iij urine. 11 a.m.—Vomited bilious fluid with injesta. Gave tr. caprici. 5 p.m.—Has slept well during the greater part of the afternoon; skin acts well; feels easy. As pulse was a little hard, and fearing peritonitis, gave the verat. oviride once more, but was obliged to discontinue it as it caused nausea and emicis. About ʒ iv of urine was removed at 3 p.m., and ʒ v at 7 p.m. 9 p.m.—Passed flatus per anum; attempts at emecis occurred at the same time, also at 10 p.m., when more gas escaped; after which she had what she called a "refreshing sleep," for about twenty minutes. 11 p.m.—Skin cool and moist; tongue slightly furred. Drew off ʒ iij urine, after which she slept well for one hour.

14th, (3rd day).—From 1 to 3 had a quiet, comfortable time; skin moist and cool; drew off ʒ vj. of clear, normal-looking urine, with a slight ammoniacal odor. 7 a.m.—Has been troubled a good deal with abdominal distention from difficulty in passing wind, which has not escaped for some hours. Is troubled with nausea, and vomited once. Gave aconite (Flemmings') ¼ drop, which gave some relief, but induced great diaphoresis. At 7.30, flatus escaped easily and freely. 9 a.m.—Nausea and a short spasm of pain in bowels, with a chill, and followed by emicis and perspiration. 10 a.m.—Skin cool; flatus escaped freely several times, followed by a natural stool. Dressed the wound, which is united by first intention, and changed her to the far side of the bed. 11.30.—Passed urine naturally, without trouble; there is still slight nausea. Vomited again at noon, after which felt easy. Tongue a little coated. 1 p.m. —Took beef tea with relish, for the first time; before this had taken ice and water only. At 4 o'clock and again at 7 o'clock, passed urine naturally, and slept a good part of the afternoon quietly and well. At 10 p.m., her temperature was normal and pulse 100; skin cool and moist; passed urine and flatus easily. From this time till 3 p.m., 15th June, (4th day), she slept well the greater part of the time, the pulse gradually going down till it touched 86, and the temperature remaining normal. Changed her bed at 1 p.m., when she passed urine as usual. After this complained of phlegm in throat and a tendency to cough, which greatly distresses on account of the pins passed through the pedicle hurting the abdomen. 8 p.m., skin moist but rather hot, thinks the heat of the day makes her feel so warm. Is very free from pain; takes beef tea well; flatus passes free.

16th June, (5th day). 1 a.m.—Has not slept for last twelve hours, and says she is tired. 2 a.m.— Can't sleep for bad dreams; skin hot and dry; pulse rather wiry; gave one drop aconite every hour. 4.30.—Pulse softer; skin cool and moist; tongue moist but furred; no pain; is tired; dreams still trouble. 8 a.m.—Cough begins to give much distress, for which gave ext. nuces vomici (fld.) in 1-20 drop doses every hour or two. 12 m.—Cough easy;

slept well; skin cool and moist. 4 p.m.—Cough troubled a good deal at one o'clock, but since hen easy and well; took half a cup chicken broth and a crumb of bread; skin moist; tongue clean. 6 p.m —Cough troubles still; urine all right; takes broth freely.

17th June, (6th day). 9 a.m.—Had a good night; slept nearly all the time. All going well, except a little pain with last few drops of urine; says she "feels as though she should be out of bed."

18th June, (7th day). 8 a.m.—All going on well; had a good night; pedicle troubles somewhat, and on examination find it nearly separated; there is a little pocket of pus at site of upper needle; all else looks well; urine passes freely, but of a smoky color. Odered night and morning the effer carb. lithia water. 9 p.m.—Passed a good afternoon; troubled with bad dreams when asleep this eve; dressed pedicle, very little pus.

19th June, (8th day). 8 a.m.—Slept since ten last night splendidly, and feels all right, "sleep very refreshing;" passed ℥x normal urine; removed two deep sutures.

20th June, (9th day). 11 a.m.—Passed a fair night, but cough and bad dreams troubled her a good deal; urine a little smoky-colored but quite free; had very severe perspiration between 2 and 4 a.m.; every thing on her wet by it, but skin is now normal. There is free suppuration and discharge around pedicle, which is rapidly separating from the healthy tissue below; removed écraseur and left the wire around pedicle in situ. Cough troubles. 10 p.m.—While dressing pedicle it separated, and with the two needles came away. The whole of the neck of the uterus came away and left a deep cavity, partly due to this cause and partly to elevation of abdominal walls. Wound looks well.

21st June, (10th day). 6 p.m.—Slept well all night; tongue clean; urine free and normal; had a good day; wound discharges freely.

22nd June, (11th day). 10 a.m.—Feels well; tongue clean; urine abundant and normal; wound discharges freely, but very deep from retraction of vagina; had purulent discharge "per vaginum." 10 p.m.—Heat of the day has prostrated her a good deal; all going on favorably.

23rd June, (12th day). 10a.m.—Gave castor oil to open bowels, as she hashad no passage since evening of third day. 10 p.m.—Bowels acted well, and abdomen not distended much. Removed all adhesive straps, and keep dressing in its place by flannel roller only; removed about ℥j pus, with some shreds of cellular tissue from around wound; passed a good day and feels well.

24th June, (12th day). 10 a.m.—Had a good night but bowels slightly loose; some slight pain and tenderness over bowels, also tympanitis; wound looks very well and filling up fast with healthy granulations. 10 p.m.—Wind troubles a good deal; slept fairly, but moans and starts occasionally. On dressing wound and removing some shreds of cellular tissue, find a small pocket of pus to the left and above Poupart's ligament communicating with a cavity of the wound.

25th June, (13th day). 9 a.m.—Appetite good; looks well, although slept little last night; tongue clean, urine normal; wound doing well and filling up rapidly; pocket of pus nearly gone. 11 p.m.—Had a good day, but feels feverish and week on account of trouble with the nurse during the evening; very little pus and a little tenderness on right side of wound.

26th June, (14th day). 9 a.m.—Had a good night, slept nearly all the time; very free escape of pus from wound; the indurated and hyperplastic tissue around pedicle seems to be dissolving away, although a little still remains on the right side. 7 p.m.—Can lie on right side and take tea with comfort.

27th June (16th day), 10 a.m.—Passed a poor night on account of wind in bowels. Gave veratrum viridi again, but it caused emecis. Tongue skin, etc., all well; wound doing well. 10 p.m.—Gave an injection—the confection of senna failed to move the bowels—which opened then twice; changed the bed linen and placed a new hair mattress under her. Gave 5 grs. calomel which moved bowels freely at 11.30, after which she felt quite easy.

28th June, (17th day). 10 a.m.—Doing well; wound nearly filled up; passed a good night and slept well. Bowels open again this a.m.

29th June. 3 p.m.—Doing well. Free discharge of pus. Sat up in bed for a short time.

30th June. 3 p.m.—Slept well on alternate sides. All doing well. Bowels very slightly distended with air.

1st July.—Doing as well as could be desired.

2nd July.—Wound discharges freely, although nearly filled up to a level with abdomen.

Continued doing well up to 6th July, when I discovered a pocket of pus on right side, which, by gentle pressure, freely escaped by the wound.

7th July.—Sat up for a short time; wound discharges freely; all going well.

9th July.—Pocket of pus in right side gone; but there is one formed on left side. Bowels distended with gas, which does not pass off as easily as usual.

12th July.—Pocket on left side disappeared: wound doing well. Got up in an easy chair while bed was being made, and enjoyed the change.

13th July.—Is able to get out of bed, into the chair, alone. All going well.

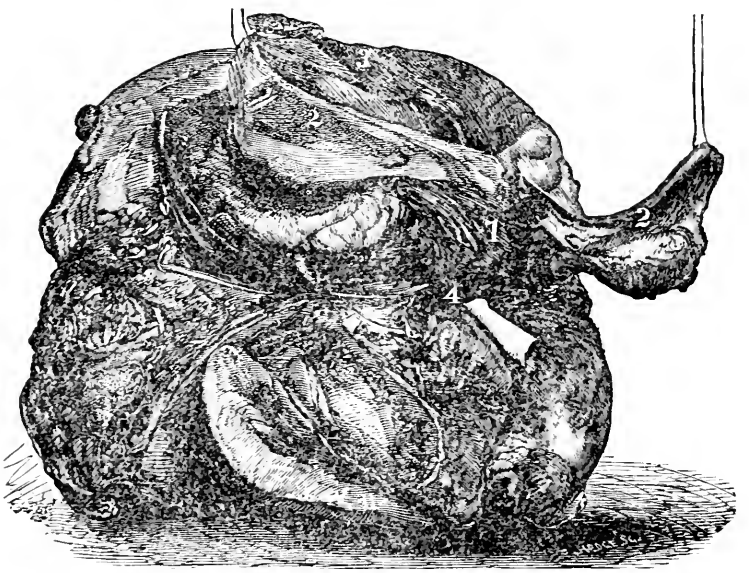
14th July.—All doing well: walked across the room.

17th July, (35th day).—Walked down town as far as Victoria Square; is perfectly well, but feels weak. Is gaining flesh rapidly; weighs 102 lbs., 32 lbs. less than before the operation.

From the above date, till she left for her home in Ontario, she gained half a pound per day in weight, and is quite active on foot.

The tumor weighs 16 lbs., including the uterus and ovaries. It springs from the posterior and left side of the centre of the body of that organ. A No. 10 sound can be passed through a fistulous opening into a cavity situated in the centre and upper part of the anterior aspect of the tumor, which cavity will hold about 35 ozs. When removed this cavity was full of pus. The rest of the growth is of a uniform firm, fleshy character. The accompanying illustration gives a correct view of its contour and peculiarities of formation:

1. Uterus. 2. Ovaries. 3. Round Ligament. 4. Piece of paper which was put into the cervical canal for the purpose of indicating its position, as also the divided portion of the cervix.



The operation, the details of which I have the pleasure of laying before you this evening, is one that has not as yet secured for itself a place among the recognized and legitimate operations of the surgeon.

That this *should have been* the case is not to be wondered at, when one considers its formidable character, and the grave risks to the life of the patient; but that it *can continue* to be thus placed beyond the sphere of warrantable surgery is quite impossible in face of the wonderful success that has of late attended it in the hands of such men as Pean and Keberle. True the risk is, notwithstanding the known perfection of detail in operating, fearfully great, and we would not pen one word that would tend to remove a particle of the heavy weight of responsibility from the shoulders of him who undertakes it; but, on the other hand, it is no small gratification and pleasure to be a fellow-worker with those who, in dealing with these unfavorable cases, have, by skill and daring, rescued some few of such doomed ones from an early grave.

I trust that the report of this case will not long remain the only successful one on record in Canada, and that where life has become a burden and in imminent danger of an abrupt termination, others may take heart and undertake the operation with hopeful courage, trusting that their efforts may be crowned with a similar success. To avoid repetition I have arranged the temperature and pulse on a form by which the changes can be perceived at a glance.

	Temperature.		Pulse.	
June 12	98.5 M.	101.2 E.	96 M.	124 E.
13	101.4	9 .2	96	128
14	99 2	97.5	10	104
15	97.8	100.8	96	98
16	99.2	101	96	104
17	99.5	101	116	124
18	98.8	101	108	128
19	99.8	100.6	118	120
20	100.1	99.3	112	118
21	99 3	9 .8	108	112
22	99.3	99.1	106	108
23	98.8	99.6	104	120
24	98.9	101	104	112
25	99.9	100.2	100	120
26	100.2	101.6	104	124
27	100.8	101.1	112	126
28	100.2	101 5	110	116
29	100 4	101.3	112	124
30	100.7	101.3	112	114
July 1	101.3	101.5	104	114
2	99.8	101	100	108
3	100.2	102.3	106	112
4	9 .9	101.8	102	112
5	100.5	102.3	104	108
6	101.8	103.3	100	112
7	100.8	103	110	116
8	102.6	103.4	112	116
9	100.4	101.3	96	112
10	99.5	101.2	96	100
11	99.5	100.3	94	100
12	98.3		96	96

VICTORIA SQUARE,
Montreal, 1874.

Progress of Medical Science.

CLINICAL LECTURE ON FIBROUS ANCHYLOSIS, CHRONIC SYNOVITIS, ETC.

BY LEWIS A SAYRE, M.D., Prof. of Orthopædic Surgery in Bellevue Hospital Medical College New-York City.

Gentlemen: The first case that I bring before you to-day is this girl, who has been suffering for some time from fibrous anchylosis at the hip-joint.

This form of anchylosis in many cases very closely assimilates bony anchylosis. It is important, therefore, that you should be able to distinguish one from the other with great certainly, for the management of the two conditions is conducted upon entirely different plans.

In those cases which most closely assimilate bony anchylosis—for it is in such that differential diagnosis is most difficult—if movements are made at the joint, and any motion whatever is secured during the manipulation necessary to a thorough examination of the case, it will be followed by more or less of pain within twenty-four hours. This is a distinguishing feature of cases of *fibrous* anchylosis.

For when bony anchylosis is present, no movements at the joint can be made, consequently pain will not be produced at the point of anchylosis. This rule you will find to be reliable. The subsequent occurrence of pain in and about the joint, even if there be no apparent motion, will justify you in resorting to measures calculated to give to it gradual restoration of motion.

In the case of this little girl, it was exceedingly difficult to determine whether any motion whatever was remaining at the hip-joint, so firmly flexed and adducted was her limb. But the day following the manipulation considerable pain was present, and other evidences of inflammatory action were quite well developed. The limb was placed at perfect rest by placing the child in bed. By the rest in bed and continued application of cold to the inflamed parts by means of icebags, and extension in the line of deformity gradually changed towards the normal. All inflammatory action was subdued within a few days, and then she was placed upon this instrument which had been specially devised to meet the indications in her case. The instrument consists of a pelvic belt, with perineal bands; a long bar with a foot-piece and adjustment for extension; a knee-cap and a movable joint opposite the hip for flexion, extension, and abduction. At the movable joint arrangement is made so that, by means of screws, abduction and rotation of the limb outwards can be effected at the same time. It is, in short, a modification of Taylor's long splint, the modification consisting in the use of screws for obtaining abduction and rotation. It has now been one month since the instrument was applied, and the change which has been produced during that time is very marked. The limb has been abducted to such an extent that it is now nearly parallel with the opposite limb. This can be ascertained only by placing the pelvis in a fixed position. Rotation has been almost perfectly restored, and flexion and extension have been restored to considerable extent. Abduction and adduction are quite free, and the limb is upon the highway to complete recovery.

The case well illustrates what extraordinary results can be obtained in the way of overcoming muscular rigidity by the application of a constant unremitting force. Under circumstances favoring the application of constant unremitting elastic force, equally as favorable results can be obtained by paralyzing muscular power, thus overcoming deformities produced by it.

CASE II. *Chronic Synovitis.*—This patient, as you see, is a man of medium size, exceedingly muscular, and forty years of age.

Some seven or eight years ago, while wrestling, his foot caught against the edge of a board in the floor, which was slighly elevated above the others, and the quadriceps muscle being placed in a condition of powerful tension, luxated the patella upon the right knee inwards, and he fell. While attempting to raise himself, the muscle restored the patella to its proper position. For a few days he was unable to walk, but in a short time recovery, as was supposed, was complete.

About two years after the occurrence of this accident chronic inflammatory action was set up on the

opposite knee, and soon affected both knees; they gradually increased in size, and now, as you see, they are immense. One measures eighteen, and the other seventeen and a half, inches in circumference, and the calves of the legs are very much diminished in size.

For the last two years this condition has remained about stationary. The effusion is now so abundant that the patella of each knee is lifted from its articulation, and, as pressure is made upon it, it can be made to strike the bones below with an audible *click*.

By transmitted light a lake of fluid can be seen below the ligamentum patellæ, with a large collection of semi gelatinous material at its upper surface, presenting a very beautiful pathological appearance. These knees have received an almost endless variety of external applications, and his general system has received a great amount of medication, but all have failed to produce any change, and we now find them as they have remained for a numbers of years.

The effusion in this case has become so great as to preclude all possibility of its removal by absorption, simply because the excessive tension that has been made upon the absorbents has paralyzed their action in such a manner that absorption cannot take place.

The condition is analogous to that occasionally seen in ascites, when the pressure is so great from accumulated fluid that the absorbents will not respond to the influence of internal remedies. In that case, the removal of only a small portion of the fluid will in many cases reduce the tension sufficient to permit the subsequent removal of the remainder by the renewed action of the absorbents. This case, however, has been of so long standing that it is not probable that the removal of a portion of the fluid would be of any benefit, even though followed by the most constant and powerful compression.

In most cases, particularly in the sub-acute and earlier chronic stages, decided benefit can be obtained by pressure applied to the joints. This can be conveniently and effectually done by means of compressed sponge. Cover the joint which is the seat of the synovitis with compressed sponge, and retain it in position by means of a roller bandage. The sponge is then wet with warm water, which causes it to gradually expand and thus produce an equal amount of pressure over all the parts covered; and it can be kept up long as may be desirable. The sponge can be applied one or twice a day, according to the necessities in the case. Changing it every twenty-four hours is usually sufficient.

The question now arises, What is the best thing that can be done for the relief of the present condition of this case?

A free incision will permit the fluid to escape, but the risk of exciting an uncontrollable inflammatory action would hardly warrant such a procedure.

What I propose to do in this case is to remove the fluid by means of the *aspirator*. This also, is not altogether a safe operation, for inflammatory action may follow its performance; but, under the circumstances, it is the best operation that can be resorted to. In such a case as this, a certain amount of risk must be taken, no matter what operative interference may be adopted.

In all probability, simple aspiration will fail to give any permanent relief, for the reason that the case has been of so long duration. It is also altogether probable that the synovial membrane has become changed in its anatomical structure to such an extent, that permanent benefit will only follow the adoption of some more active measure.

There is a chance, however, that the simple operation of aspiration, followed by elastic pressure, such as obtained by the use of compressed sponge and a roller bandage, may accomplish a cure.

If simple aspiration does not succeed, the fluid will then be removed by means of the ordinary trocar; and when removed, the cavity will be injected with Lugol's solution of iodine. The principal of treatment is precisely the same as that which governs us in the treatment of the tunica vaginalis in cases of hydrocele; namely, to excite a new action in the old and changed membrane, by means of an irritating agent; and for this purpose the solution of iodine indicated is much the safest agent to be employed.

In either case the patient will be placed in bed immediately after the operation, the knees will be firmly bandaged, locked in a perfectly immovable apparatus, elevated above the level of the body, and perfect rest maintained. In addition, icebags will be constantly employed if necessary. The object is to retain the imflammatory action *just within* the point of danger. In this manner we may reasonably expect to bring about complete recovery.

Case III. *Cancer of Lower Lip.*—These growths, seen not infrequently upon the lower lip, are usually regarded as cancerous in nature. Some of them are not. Some of them bear so close a resemblance to the ordinary epithelioma of the lip, that they cannot be distinguished from each other by the naked eye. They are usually the result of constant and long-continued irritation.

Fortunately there is one plan of treatment best adapted to them all. Remove them with the knife, and that makes an end of them.

There are some steps in the operation which are necessary to be observed if you would make a nice operation, and one which will prove satisfactory to your patient. The ordinary operation is to remove the diseased mass, by making a V-shaped incision, large enough to embrace the whole of it.

Serious hemorrhage can be avoided, during the operation by having an assistant make pressure upon the facial arteries as they pass over the ramus of the lower jaw. The wound can be closed by means of sutures, or pins with the figure-of-8 suture. I commonly employ the pins. These are to be passed through the lips of the wound, and then its edges are brought together in such a manner as to avoid leaving any notch in the free margin of the lip. The attachments of the cheek may be loosened with the

knife if necessary, in order to give more opportunity for perfect adjustment. Two pins are usually sufficient. After the pins have been adjusted and the sutures twisted about them, do not neglect to place a piece of adhesive plaster beneath the point of the pins to prevent irritation and excoriation. Next, long narrow strips of adhesive plaster are to be adjusted in a manner to give support to the pins in holding the lips of the wound in coaptation. These strips, passing above and below each pin, should be carried far back upon the sides of the face and neck. Carefully adjust the edges of the wound a second time, as the plaster is carried over them. The pins are to be removed within 48 hours at most after the operation. To do this without disurbing the wound, seize the pin at the head with a pair of pincers, and carefully turn it round once or twice before making the least traction. With this precaution the pins can be withdrawn without disturbing the threads or plasters, which together with the crust, are left remaining, and should not be removed for some time. Unless the pins are removed before ulceration and suppuration have been established about them, scars will be left at the points of insertion and exit; but with this precaution scar can be avoided.

Case IV. *Ingrowing Toe-nail.*—Here, gentlemen, is a case which belongs to the every-day practice in surgery. It is important, therefore, that you should understand how to manage successfully such little cases. Almost any one can cut off a limb, but it is not every professed surgeon even who successfully manages these painful cases of ingrowing toe-nail. It is quite fashionable, especially in cities, to recommend these people to go to some *specialist*, who "knows all about corns, toe-nails, etc.;" and one of these cases is scarcely ever met here but what has been more or less treated by that class of men. Narrow-soled shoes and boots are the great prolific sources of this difficuly. A great many people imagine—and we are sorry to be obliged to say that the greater proportion of this class is made up of ladies—that a narrow foot and high instep are elements of beauty. The result, however, of these efforts to distort the foot is the toe-nails cut their way into the tissues, and the tissues becomes hypertrophied. The appearance very commonly presented is a large mass of fungous granulations rising up from the side of the nail, as you can see very well illustrated in this case.

The toe cannot be cured until this redundancy of flesh is gotten rid of. Sometimes it becomes necessary to employ the knife in the removal of this superfluous growth. Nitric acid is a very good application, and nitrate of silver is another.

Immense relief can be afforded by applying a few threads of cotton beneath the cutting-edge of the nail, in such a manner as to protect the excessively tender tissues from irritation produced by being crowded in contact with it. When the cotton is properly applied, pressure upon the ball of the toe will give no pain. The proper instrument with which to apply it is a narrow thin knife-blade without cutting-edge. With this instrument draw a few threads of cotton down between the nail and the mass of granulations, and so on until they are carried beneath the cutting-edge of the nail. This operation will give some pain during its performance, but the relief which will be afforded by it will be most marked. After the appliection of the cotton, pencil the fungous granulations over freely wit nitrate of silver, or with whatever may be used for the purpose of destroying them. Repeat the application as often as the destroyed tissues separate, until the exuberant growth is all destroyed.

Case V. *Fracture of the Forearm, Phlegmonous Erysipelas, and Inflammation of Wrist-joint.* The next case I present to you, gentlemen, is one of considerable interest. This man first suffered from a fracture of the forearm. Phlegmonous erysipelas attacked the limb a short time after the accident; and you will here notice the many openings which have been made for the free escape of pus, numbering, as the house-surgeon says, thirteen. The wrist-joint has also become involved in the inflammatory process. The case was one set down for amputation, but I resolved to make an effort to save the limb.

The difficulty involving the wrist-joint was the chief obstacle to be overcome. The thing desired was to place the joint perfectly at rest, and at the same time remove all pressure from the articular surfaces. How was this to be done? Take a piece of sole-leather, long enough to reach from the digital extremity of the palm of the hand to near the flexure of the elbow, and wide enough to half or two-thirds surround the arm. Dip it in cold water, and make it thoroughly flexible. Cover it with a piece of adhesive plaster, plaster side out, long enough to go completely around it lengthwise, and lock. Now, having covered each opening with a piece of oakum, apply the leather-lined plaster to the palm of the hand, mould it, and secure it with a roller bandage as far as the wrist. Having arrived at that point, grasp the hand already covered, while an assistant graspe the arm near the elbow; then making extension and counter extension, until the patient tells you that all pain is relieved, bring the remainder of the leather-lined plaster against the forearm, and secure it with a continuation of the baudage. In this manner all pressure is removed from the articular surfaces, pain is relieved, and an apparatus is afforded which retains everything at perfect rest. It is almost impossible to devise any means for meeting the indications in this case which is simpler than this. The leather is much better adapted to such uses than a board, for the reason that it can be more perfectly moulded to all the inequalities of the limb. The plaster lining holds it securely in position, in such a manner as to prevent slipping. Since the application of this splint the œdematous condition of the limb has passed away, and the question of amputation is no longer present for consideration. —*Medical Record.*

ON NÉLATON'S METHOD OF RESUSITATION FROM CHLOROFORM NARCOSIS.

By J. MARION SIMS, M. D.,

Surgeon to the Woman's Hospital of the State of New York, etc.

Dr. Charles James Campbell, the distinguished accoucheur of Paris, has recently written two papers on anæsthesia in obstetrics, in which he ably sustains the views long taught by Nélaton, that death from chloroform is due to syncope or cerebral anæmia. And amongst other strong arguments to prove his position, he gave a graphic description of a case of chloroform narcosis, which occurred in my practice in Paris, where M. Nélaton, by his method, unquestionably saved the life of the patient. She was young, beautiful, and accomplished, and belonged to one of the oldest and best families in France. Married at twenty, she gave birth to her first child a year afterwards. The head was enormous (hydrocephalic), impacted in the pelvis nearly 24 hours, and the delivery of a dead child was ultimately accomplished with instruments. Dr. Bouchacour of Lyons was called in consultation, and applied the forceps. In a week afterward, the urine began to dribble away, and in a fortnight an immense slough was thrown off. The case, surgically considered, was one of the most interesting I ever saw, and the operation was one of the most difficult I ever performed on any one in her station in life. The base of the bladder was destroyed and the fundus fell through the fistulous opening; it was therefore inverted, and protruded between the labia majora as a herniary mass of the size of an apricot, its external covering being the internal or lining membrane of the bladder, which was of a deep vermillion red colour. The vaginal portion of the cervix uteri and the posterior cul-de-sac were destroyed; and by the reparative process, the cervix and the posterior wall of the vagina were blended into one common cicatricial mass, which was firm, inelastic, and immovable. The case appeared desperate, and M. Nélaton had pronounced it incurable. A preparatory operation was necessary, viz., to open the cervix uteri, by dissecting it from the posterior wall of the vagina, and thus to reconstitute the canal of the vagina up to the canal of the cervix; and by a subsequent operation, to draw forward the flap thus formed, secure it to the neck of the bladder anteriorly, and thereby close the fistula. The first, or preparatory operation, was performed at the country house of the family near Dijon, on November 3rd, 1861. Dr. Dugast of Dijon assisting, and giving chloroform. The second, or operation for the radical cure, was performed on the 19th of the month at St. Germain, about an hour's distance from Paris by rail. M. Nélaton, Dr. Campbell, Dr. Beylard, Dr. Johnston, and Mr., now Dr., Alan Herbert, were present. I seldom give an anæsthetic in private practice for operation on the walls of the vagina, as the pain is generally not sufficient to call for it. But in this case as the slightest touch was unbearable, an anæsthetic was indispensable. Dr. Campbell was selected by the family, as well as by M. Nélaton and myself, to administer the chloroform, especially as he was in the daily habit of giving it in his large obstetrical practice, and we all had entire confidence in his caution, skill, and judgment. The patient was soon anæsthetised. The operation was begun at 10 A. M., and I thought it would require about an hour to finish it.

Many years ago I imbibed the convictions of my countrymen against chloroform in general surgery, and have always used ether in preference, never feeling the least dread of danger from it under any circumstances. It is otherwise with chloroform, and in this particular case I felt the greatest anxiety, frequently stopping during the operation to ask Dr. Campbell if all was going on well with the patient. At the end of forty minutes the sutures (twelve or thirteen) were all placed, and ready to be secured, and I was secretly congratulating myself that the operation would be finished in a few minutes more, when all at once I discovered an unusual bluish livid appearance of the vagina, as if the blood were stagnant, and I called Dr. Johnston's attention to it. As this lividity seemed to increase, I felt rather uneasy about it, and I asked Dr. Campbell if all was right with the pulse. He replied, "All right, go on." Scarcely were these words uttered, when he suddenly cried out, "Stop! stop! No pulse, no breathing"; and looking to M. Nélaton, he said, "Tête en bas, n'est-ce pas?" Nélaton replied, "Certainly; there is nothing else to do." Immediately the body was inverted, the head hanging down, while the heels were raised high in the air by Dr. Johnston the legs resting, one on each his shoulders. Dr. Campbell supported the thorax. Mr. Herbert was sent to an adjoining room for a spoon, with the handle of which the jaws were held open, and I handed M. Nélaton a tenaculum, which he hooked into the tongue, and gave in charge to Mr. Herbert; while to Dr. Beylard was assigned the duty of making efforts at artificial respiration, by pressure alternately on the thorax and abdomen. M. Nélaton ordered and overlooked every movement, while I stood aloof and watched the proceedings with, of course, the most intense anxiety. They held the patient in this inverted position for a long time, before there was any manifestation of returning life. Dr. Campbell in his report, says it was fifteen minutes, and that it seemed an age. My notes of the case, written a few hours afterwards, make it twenty minutes. Be this as it may, the time was so long that I thought it useless to make any further efforts, and I said, "Gentlemen, she is certainly dead, and you might as well let her alone." But the great and good Nélaton never lost hope, and by his quiet, cool brave manner, he seemed to infuse his spirit into his aids. At last there was a feeble inspiration, and after a long time another, and by and bye another; and then the breathing became pretty regular, and Dr. Campbell said, "The pulse returns, thank God; she will soon be all right again." Dr. Beylard, who always sees the cheerful side of every thing in life, was disposed to laugh at the fear I manifested for the safety of our patient. I must confess that never before or since have I felt such a grave responsibility. When the pulse and respiration were well re-established, M. Nélaton ordered the patient to be laid on the table. This was done

gently. But what was our horror, when, at the moment the body was placed horizontally, the pulse and breathing instantly ceased. Quick as thought, the body was again inverted, the head downwards and the feet over Dr. Johnston's shoulders, and the same manœuvres as before were put in execution. Dr. Campbell thinks it did not take such a long time to re-establish the action of the lungs and heart as in the first instance. It may have lacked a few seconds of the time; but it seemed to me to be quite as long. For the same tedious, painful, protracted, and anxious efforts were made as before; and she seemed, if possible more dead than before; but, thanks to the brave men who had her in charge, feeble signs of returning life eventually made their appearance. Respiration was at first irregular and at long intervals; soon it became more regular, and the pulse could then be counted; but it was very feeble, and would intermit. I began again to be hopeful, and even dared to think that at last there was an end of this dreadful suspense, when they laid her horizontally on the table again, saying, "She is all right this time." To witness two such painful scenes of danger to a young and valuable life, and to experience such agony of anxiety, produce a tension of heart and mind and soul that can not be imagined. What, then, must have been our dismay, our feeling of despair when, incredible as it may seem, the moment the body was laid in the horizontal position again, the respiration ceased a third time, the pulse was gone, and she looked the perfect picture of death? Then I gave up all as lost; for I thought that the blood was so poisoned, so charged with chloroform, that it was no longer able to sustain life. But Nélaton, and Campbell, and Johnston, and Beylard, and Herbert, by a consentaneous effort, quickly inverted the body a third time, thus throwing all the blood possible to the brain and again they began their efforts at artificial respiration. It seemed to me that she would never breathe again; but at last there was a spasmodic gasp, and, after a long while, there was another effort at inspiration; and, after another long interval, there was a third; they were "far between;" then we watched, and waited, and wondered if there would ever be a fourth; at length it came, and more profoundly, and there was a long yawn, and the respiration became tolerably regular. Soon Dr. Beylard says, "I feel the pulse again, but it is very weak." Nélaton, after some moments, ejaculates, "The colour of the tongue and lips is more natural." Campbell says, "the vomiting is favourable: see, she moves her hands; she is pushing against me." But I was by no means sure that these movements were not merely signs of the last death-struggle: and so I expressed myself. Presently, Dr. Johnston said, "see here, doctor; see how she kicks; she is coming round again;" and very soon they all said, "She is safe at last." I replied, "For heaven's sake, keep her safe; I beg you not to put her on the table again till she is conscious." This was the first and only suggestion I made during all these anxious moments, and it was acted upon; for she was held in the vertical position till she, in a manner, recovered semi-consciousness, opened her eyes, looked wildly around, and asked what was the matter. She was then, and not till then, laid on the table, and all present felt quite as solemn and as thankful as I did; and we all in turn grasped Nélaton's hand, and thanked him for having saved the life of this lovely woman.

In a few minutes more, the operation was finished, but, of course, without chloroform. The sutures were quickly assorted and separately twisted, and the patient put to bed; and, on the eighth day thereafter, I had the happiness to remove the sutures in the presence of M. Nélaton, and to show him the success of the operation.

I have detailed the circumstances of this interesting case at great length, because I believe it goes as far to establish a principle of treatment as any one case ever did, or possibly can.

If the recovery had been complete and perfect with the first effort at reversing the body, there might have been a doubt whether the vertical position was really the cause of resuscitation; but, when the horizontal position was again and again followed by a cessation of all evidence of life, and when life was again and again re-established by a position that favored only the gravitation of the blood (poisoned as it was) to the brain, the inference is very clear that death in such cases is due to syncope or cerebral anæmia. Exhaust the brain of blood in any way, and death follows speedily. Fill it with blood again, and life returns.

I have another case to relate, which goes far to establish the principle of treatment in chloroform narcosis, so forcibly illustrated by the case at St. Germain.

In Janury 1873, I amputated the cervix uteri at the Woman's Hospital, drew the vagina tissue over the stump, and secured it by silver sutures. The junior house-surgeon gave the anæsthetic. When the operation was nearly finished, he cried out, "The patient has stopped breathing," and immediately added, "She has no pulse." As before stated, I always use ether as an anæsthetic, and could not realise the fact that my patient was in any danger whatever till I was told that they were giving her a mixture of chloroform and ether (one part to four), which some of the surgeons had been using a few days previously. On examining the patient, I found her, as it were, dead; there was not the slightest muscular rigidity; the arms and head fell by their own gravity in any way they directed; the neck was as limber as if it were a mere band of soft linen stretching from the head to the trunk; there was not the least sign of breathing or of the pulse; she was, to all intents and purpose, dead; and I believe she would certainly have remained so if she had been left alone; and I doubt very much whether she could possibly have been resuscitated by any other method than that of Nélaton.

I quickly inverted the body, and had it held thus; and then I shook the thorax, agitating the head laterally, so as to add an impetus to the movement of the blood, which, with the body in this vertical position, would naturally gravitate toward the brain; the jaws

were held asunder, and the tongue hooked with a tenaculum, and pulled forward. In a few minutes the breathing was re-established, and then the pulse returned; and soon the patient was placed again on the table in the lateral semiprone position in which all my operations on the uterus are performed; and the operation was finished, but without any more of the anæsthetic.

These two cases comprise my personal experience with Nélaton's method in chloroform narcosis.

As the facts now laid before you fully explain themselves, it is unnecessary for me to indulge in any lengthened remarks on the subject. In my own country, the accoucheurs often use chloroform, and the surgeons mostly use ether. I believe there has not as yet been a single death from chloroform given during labour; while deaths from it in general surgery occur constantly, and for unimportant operations. There must be a reason for this. I believe that it can be explained only on the theory that death from chloroform is, as a rule, due to syncope or to cerebral anæmia. Now, we know that in active labour there can be no cerebral anæmia, for every pain throws the blood violently to the head, producing fulness and congestion of the blood-vessels, thereby counteracting the tendency of the chloroform to produce a contrary condition. It may be said that the recumbent position has some influence in determining the safety of of chloroform in labour; and so it has, but it gives no immunity under other circumstances. Chloroform, given intermittingly as in labour, is thought to be less dangerous; but patients in labour are often kept for hours under its influence with safety, and occasionally it is necessary to produce complete and profound narcosis in some obstetrical operations; and yet, I believe, I can safely reiterate what I have already said, that no woman has as yet died in labour from the effects this anæsthetic. In puerperal convulsion, where the brain is believed to be overcharged with blood —and that, too, when the blood is known to be poisoned with urea—we formerly bled the patient, and we do so now sometimes; but our chief remedy is chloroform, which acts by arresting spasmodic movement, and by producing that very state of cerebral anæmia so necessary to a successful result. Whether puerperal convulsions are less frequent in labours under chloroform than in those without it, I do not know.

I believe that obstetricians may take a lesson from Nélaton's method of resuscitation, by adopting it in cases of threatened death from *post partum* hæmorrhage. Let us not be satisfied with simply placing the head low; but let us, in addition to the means usually adopted, invert the body, and throw what little blood there is left in it wholly to the brain. I have never seen a death from uterine hæmorrhage: but from recollections of the few alarming cases I have witnessed, I now feel sure that recovery might have been hastened if I had known and adopted Nélaton's method of inversion.

Whether death from chloroform is due to cerebral anæmia or not, it is at least safe to adopt Nélaton's method in all cases of supposed or threatened danger; but I think the safest plan is to relinquish the use of chloroform altogether except in obstetrics. The frequent cases of death from the use of chloroform in surgical operations that have occurred amongst us, even of late, should warn us to give up this dangerous agent, if we can find another that is as efficient, and, at the same time, free from danger. Ether fulfils the indications to a remarkable degree; but, while it is safe, it is unfortunately unpleasant to the physician and bystanders, as well as to the patient. He who will give us an anæsthetic as pleasant to take as chloroform and as safe as ether, will confer the greatest boon upon science and humanity.

COLLES' FRACTURE OF THE RADIUS.

By Daniel La Ferte, M.D., Demonstrator of Anatomy and Lecturer on Orthopoedic Surgery in Detroit Medical College.

I wish to offer a few remarks on Colles' fracture, in order to direct the attention of the profession to some points which are even at the present day often overlooked. On account of this neglect there is often left a permanent deformity in the limb, and both surgeon and patient have every reason to be dissatisfied with the result of the treatment.

Dr. Moore, of Rochester, N.Y., deserves great credit for the light which he has thrown on the pathology of this injury. That gentlemen found in his dissections that in a large proportion of these cases the styloid process of the ulna is dislocated underneath the posterior annular ligament. Where this is the case we cannot expect to obtain anything like a good result without first reducing the dislocation. In spite of his teaching, and in the face of the good results which have followed his plan of treatment, many practitioners yet adhere to the teachings of the past, and dress this fracture by simply carrying the hand forcibly to the radial side, and applying a pistol-shaped splint. The effect of this procedure, as will be apparent to all, is to thrust the ligament still farther underneath the process, and consequently aggravate the difficulty. Having liberated the imprisoned ulna, there can be no advantage in applying a pistol splint. The adherents to this mode of treatment claim that the pressure exerted over the lower end of the radius by the extensor ossis metacarpi pollicis and extensor primi internodii pollicis muscles, as well as the traction of the external lateral ligament of the wrist, will raise the upper end of the lower fragment from its bed, and thereby secure proper adaptation of the fragments. I do not believe that the amount of pain produced by the degree of force requisite to secure that end could be endured for any length of time; much less could it be borne three, four or six weeks, or until union had taken place. I doubt very much if the lower fragment is raised to any appreciable extent by this procedure. Moreover, should the fracture be a comminuted one, then certainly the pressure of the muscles over the lower end of the bone cannot exert their influence over every fragment.

What shall we do with the projection of the head of the ulna? My opinion is that we should proceed

according to Moore's method in these cases, which has for its object the reduction of the dislocated ulna. We have all heard of this method, but there are many who are not familiar with its details. The following are the different steps of the operation: Place the hand midway between pronation and supination; take a firm hold of the wrist with one hand, and with the other seize the hand, make extension and counter extension, draw the hand forcibly to the radial size, then backwards and to the ulnar side, bring it in a straight position with the forearm, then forcibly flex it on the latter; lastly, bring it back to a straight position with the forearm. Apply a solid pad over the head of the ulna, and secure it in its place by means of a strip of adhesive plaster two inches in width, and long enough to encircle the wrist two or three times. The arm is then put in a sling, which constitutes the dressing. For greater safety, there can be no objection, in my opinion, to applying well padded straight splints in addition to the above dressing.

The normal relations of the tendon of the extensor carpi ulnaris and head of the ulna being borne in mind, will serve as a guide to the surgeon. When he has succeeded in reducing the dislocation, he will find the head of the ulna lying on the radial side of the tendon, its normal position, whereas when the dislocation exists the tendon lies on the radial side of the head of the bone. In very fleshy individuals it is not always an easy matter to feel the tendon, but in the majority of cases it well serve as a very important landmark. The object of the pad is to keep the head of the bone in its position, which it would otherwise be very difficult to accomplish, on account of more or less laceration of the internal lateral ligament and inter-articular fibro-cartilage.

I had occasion, lately, to try Moore's method in a case of this kind of four week's standing, in a boy twelve years of age. The arm had been dressed in the usual way, by means of a pistol splint. When he came under my observation, the case presented the symptoms of Colles' fracture in a marked degree. Having placed the patient under the influence of an anæsthetic, I broke up the adhesion, reduced and dressed the fracture according to Moore's method, applying in addition straight splints to the forearm. At the expiration of three weeks I removed all the dressing, and found union perfect. The powers of pronation and supination were normal, and motion of the wrist not in the leas interfered with. The head of the ulna projects to a very slight extent, when compared with its fellow of the opposite side. I do not assert that such a result can be obtained in all cases; but, considering the time at which reduction was effected in this case, and the favorable condition in which the limb is left, I feel highly encouraged to adopt the same plan of treatment whenever an opportunity shall present itself.—*Detroit Review of Medicine.*

AN EXTRAORDINARY CASE.

The *Irish Hospital Gazette* records an extraordinary case recently brought before the Dublin Pathological Faculty by Professor R. W. Smith, of Dublin University. The disease under which the woman succumbed whose skeleton he exhibited was one of rare occurrence, and difficult alike to diagnose, treat, or even name. At the time of her death the woman was forty-five years old. Fifteen years previously she had been sent to jail for some offence, which was probably committed while insane, as shortly afterwards she was transferred to a lunatic-asylum. During the first ten years of her residence there nothing remarkable about her was noticed, and she was employed in washing the floors, etc. At the end of this period she ceased to be able to work, and was confined to bed for the remaining five years of her life, gradually becoming more feeble, and dwindling away in stature until she became about one-half the heighth she was originally. She did not complain of any pain; her limbs became coiled up in every possible shape, and she seemed gradually to disappear from off the face of the earth. She died, possibly, from constitutional disease of the osseous system. He (Professor Smith), however, looked upon the condition of the bones not as a disease, but as a manifestation of an as yet unknown diseased condition. Professor Smith had weighed all the bones individually; the total weight of the skeleton (including the cranium) was two and one-half pounds, which equalled about the fourth part of the weight of a child at birth. The bones were extremely light, soft, fragile, and atrophied in every respect. The number of fractures was prodigious. The ribs were in a hundred fragments. The head of the humerus was bent; the fibulæ were curved; the thigh-bones and pelvis were huddled up together, and the bones of the vertebræ thinned and worn away across the front of their bodies. The lower jaw was atrophied and broken into three fragments; the base of the skull was cribriform all through; and he (Professor Smith) believed that if the woman had lived longer not a vestige of a bone in her body would have been left. As to the nature of this disease he (Professor Smith) believed that it was identical with rickets occurring in the adult; and although that opinion might appear heretical to some, yet he was glad to find that in the last volume of Trousseau's Lectures on Clinical Medicine, that distinguished author had expressed his opinion that osteomalacia and rickets were one and the same disease.

PROLAPSE OF THE UMBILICAL CORD.

Dr. George J. Engelmann sums up a paper, (*The American Journal of Obstetrics*, August, 1874) as follows:—In conclusion, I will sum up in a few words the facts attained and the laws established by the examination of our prolapse cases.

The causes of the prolapse of the umbilical cord have mainly proved to be such circumstances as prevent the complete filling of the pelvic brim, and the close adaptation of the lower segment of the uterus to the presenting part. One of the more important of these circumstances is the shape of the presenting fœtal part itself, and we thus find that foot-presen-

tations are most frequently complicated by prolapse, whereas vertex presentations are least threatened.

The fœtal appendages are of secondary and minor importance: undue length of the cord, its marginal insertion, or attachment of the placenta low down in the uterus, can never be direct causes of the accident; excess of liquor amnii is alone to be feared.

Some stress is to be laid on abnormity in shape and position of the womb, much more upon twin births. More dangerous than any of these is the contracted pelvis, which I have proved by measurements and numbers to be the main cause of prolapse of the funis, directly and indirectly; a fact hitherto generally accepted, but never as yet clearly established. Another such vague general statement, that the prolapse is by far more frequent among multiparæ than among primiparæ, our cases disprove: they show that primiparæ are, comparatively speaking, almost as frequently afflicted as multiparæ.

The law governing the location of the prolapse is of importance, and here for the first time touched upon: it will, I trust, be verified by the investigation of other observers.

The post-mortem examinations revealed only the lesions due to death from the asphyxia, nothing characteristic for death caused by prolapse of the cord.

The prognosis we can give is somewhat better than generally allowed; most favourable for foot-presentations, after these for shoulder and transverse presentations, while vertex-presentations are more dangerous than any; the case being, under all circumstances, more threatening when occurring in a primipara.

In the treatment of our cases the high importance of the postural method has been developed, more as an adjuvant, however, than as a method in itself of dealing with the prolapse.

Version is comparatively the most successful of all operations, and should be more frequently resorted to when any choice of method is given, as in head-presentations: the application of the forceps and reposition of the cord are less to be relied upon; but, whatever may be the course determined upon, it must be borne in mind that the success of all operations by which we seek the preservation of the child whose life is threatened by compression of the prolapsed cord is in a measure dependent upon the judicious use of chloroform, its application to full surgical anæsthesia.

SUBACUTE OVARITIS.

E. J. Tilt, M.D.

(Transactions of the London Obstetrical Society. xv. 1874.)

The difficulty of correctly diagnosticating ovaritis arises chiefly from the fact that peritonitis obscures the diagnosis by embedding the pelvic organs in a mass which forms, only too often, a hard pathological puzzle. The symptoms may be divided into those known as catamenial and objective.

Although subacute ovaritis may be met with during the whole period of ovarian activity, it is most likely to occur in young unmarried women, from fifteen to twenty years of age, particularly in those who are delicate in body, sensitive in mind, and with proclivities to tubercular disease. When met with in women presenting none of these peculiarities, the patients will be found to have suffered all their lives from menstrual irregularities. Women, suffering from this trouble, complain of habitual pelvic and mammary pain, and especially of a marked aggravation of the nervous symptoms of menstruation, the menstrual flow being usually too abundant, or, as occasionally happens, too scanty. The pain of subacute ovaritis is deep seated, persistent, moderate, bearable, extending from the ovarian region to the knee, and sometimes accompanied by numbness, coldness and anæsthesia of the anterior part of the thigh. The pain gives rise to a certain degree of hesitation in the patient's movements, since she has learned to know that a sudden motion will increase it. Firm pressure on the ovarian region increases the pain and the peculiar nausea which not unfrequently accompanies it. The pain somewhat subsides soon after menstruation, only to reappear, however, a few days before the next period. It is not relieved by a free flow of the menses. Menstruation is preceded and accompanied by a marked aggravation of the usual mammary symptoms of that period, the breasts being swollen, painful and hot. Hysterical phenomena may also be present.

A vaginal examination will often throw a great deal of light on the case, even if it does not finally settle the diagnosis. The left hand should forcibly depress the ovarian region, while the two first fingers of the right hand examine, *per vaginam*, both sides of the body of the uterus. A forcible inclination of the cervix uteri to the side on which the disease is supposed to exist, stretches the connections of the fundus uteri and the ovary to such a degree as greatly to increase the pain. Sometimes the ovary descends into Douglass's pouch, where it can be felt as an ovid body, about two inches long, either more or less fixed by peritonitis, or fleeing from the finger, only, however, to return, as by a kind of ballottement. This body, when seized, will be found to be semi-elastic and peculiarly sensitive to pressure. A combined rectal and vaginal examination will often be found of great service in making out the diagnosis.

As regards treatment, a well appointed hygienic course for menstrual and inter menstrual periods should be advised, combined with a tonic treatment. Six leeches should be applied to the suspected ovarian region, which should subsequently be painted with oleate of mercury for six weeks, after which counter irritants may be used.

In all cases where uterine disease coexists, it should be carefully treated, since it will be found impossible to relieve an ovaritis while a disease of the uterus is allowed to continue unheeded. In these cases, in addition to the above treatment, an injection should be ordered twice a day of acetate of lead. Not unfrequently, in these cases, marriage will be immediately followed by a severe attack of uterine inflammation.—*Med. and Surgical Journal.*

ON THE LEUCORRHEA OF LITTLE GIRLS.

Lecture by M. Bouchut, Médecin de l'Hôpital des Enfants Malades, &c.

We have at the present time under observation two cases of leucorrhea, one in a little girl ten years of age, the other in a child four years of age. As this disease greatly preoccupies the mothers, who, in their ignorance of the things of life, cannot comprehend that organs in process of development, and which are supposed to be dormant and far from physiological activity, can become diseased, I am desirous of telling you what is the nature of this malady, and what is its treatment.

The first case is that of a child ten years of age, who has been ill for three weeks. Without any known cause, without previous disease, the child was taking with itching and abundant whitish discharge, which stained the linen green, as in women affected with blennorrhagia. The vulva is hot, its folds are impregnated with pus, and the orifice is swollen and dusky wine-red. No follicles or ulceration are seen on the mucous membrane, and lateral or hypogastric pressure does not cause the escape of pus from the vagina. The clitoris is red, swollen, and passes much beyond the labia majora.

As regards antecedents there is no trace of scrofula, but there is eczema of the head, in the hair, and pityriasis on the face. It is to me evident that this child has an herpetic diathesis—an important observation, which suffices to account for the leucorrhea.

The other child had for several days an indeterminate febrile state, attending which was leucorrhea followed by *aphtha* of the vulva, which have ulcerated, and on which phagedenism has created profound invading ulcerations, characterizing a particular form of gangrene of the vulva. This leucorrhea is a result of defective care and of proper washing, indispensable in all the acute diseases of little girls.

These two cases are essentially different, for the one is a diathesic leucorrhea, and the other is an inflammatory leucorrhea due to want of attention. You will find these two orders of causes in many cases of leucorrhea, but they are not the only ones. We must add to these, attempts on virtue, which are very common, and which, by attrition of the parts, engender an inflammation of the parts followed by leucorrhea, or by blennorrhagic or syphilitic contamination, determining a veritable blennorrhagia or syphilis—that is to say, chancre and its consequences. If to these causes you add masturbation, which irritates the mucous membrane of the clitoris and vulva, and then oxyurides of the rectum, which, passing from one part to the other, provoke irritation of the mucous membrane and itchings, you will understand what are the causes of leucorrhea in little girls.

The most frequent cause is herpetism or herpetic diathesis, scrofulism, and dirtiness, which, in the acute diseases of childhood, is followed by the most sad consequences. In effect, in typhoid fever, septicemic disease, small-pox, virulent disease, one often sees the vulva covered with a muco-purulent discharge of a very irritating nature, and if one does not have the children washed, a vulvar follicalitis results, followed by ulcerations with red edges and grey pseudo-membranous base, resembling *aphthæ* of the mouth. A little later these ulcerations become phagedenic, increase in every way, causing considerable loss of substance, and destroying the vulva and perineum to the anus. There is extensive molecular gangrene.

In other cases, under the ulcerated follicle a sudden engorgement of the cellular tissue occurs like a hard core, accompanied by tumefaction and redness of the labia majora; then a black eschar appears, which rapidly extends, and forms true gangrene of the vulva. This is escharifiant gangrene, which is nearly always followed by death.

These kinds of leucorrhea are the most grave and least common. The others connected with scrofula or herpetism do not involve like consequences. They remain some weeks or months and then disappear. Their nature is indicated by the scrofulous or herpetic state of the children. The seat of the leucorrhea of little girls differs absolutely from the seat of leucorrhea of women and young women. Whilst in the adult leucorrhea is always vaginal or uterine, in the little girl it is always vulvar. It only occupies the external parts of generation. It is the mucous membrane of the great and lesser lips of the vulvar orifice which is affected. In the two children which you see in my "service" the suppuration comes from the exterior, and the vagina is of no account. I have just shown this to you on the patients, and you have been able to acquire the exact proof of my statement.

The liquid secreted is acrid, irritating pus, yellowish-white, colouring the linen green, and more or less abundant according to the case. It provokes a disagreeable pruritus, which forces the children to scratch, and which sometimes gives rise to habits of masturbation, which they have not previously had. Again, as the liquid is very irritant, if the children after having touched the vulva with the hands and soiled the fingers, rub their eyes, very grave purulent ophthalmia sometimes results; hence the necessity of putting on gloves or long chemises tied beyond the feet.

After what I have said of the leucorrhea of little girls, and of its different nature, you will see that the treatment should not always be the same, and that it varies according to the presumed cause of the disease.

In leucorrhea caused by emigration of oxyurides from the rectum to the vulva, the vulvar orifice should be washed with carbolic lotions, enemas of the same should be given, or of soot, and suppositories of mercurial ointment should be put into the rectum.

In the leucorrhea of acute diseases lotions of water and aromatic wines may suffice. But if there are follicular ulcerations or phagedena the following ointment should be used:—

Axunge, 30 parts
Coal-tar, 3 "

and night and morning washings with coal-tar saponine.

If instead of phagedenic ulceration there is an

eschar, one should detach it, and dust the wound with powdered camphor.

Now, for the leucorrhea produced by scrofula and herpetism, we must administer internally cod-liver oil and syrup of arseniate of soda. In these cases we ought to prescribe baths containing carbonate of soda, sulphurous or sublimate baths, lotions of sublimate, of coal tar saponine, of carbolic acid, and if the disease resists, paintings with solution of nitrate of silver. The leucorrhea never resists these combined measures, and the combination of internal and external treatment which I have mentioned suffices to triumph over this disease."—*Annales de Gynécologie*, Mai, 1874

THE STRUCTURE OF THE MUCOUS MEMBRANE OF THE UTERUS AND ITS PERIODICAL CHANGES.

By JOHN WILLIAMS, M.D., Lond., Assistant Obstetric Physician to University College Hospital.

The paper consists of observations made on the uteri of nine women who had died in different stages of the monthly period.

In two of the uteri the menstrual flow had almost ceased, and the mucous membrane was wanting in the bodies of the organs. The muscular fibre-cells were more or less exposed in the cavity, and the meshes formed by their bundles contained glands and groups of round cells.

In one uterus menstruation had ceased three days before death, and the muscular fibres were not exposed in the cavity of the organ, but imposed upon them was a layer of tissue composed of fusiform and round cells. This tissue contained glands. The muscular tissue near the internal orifice was devoid of glands, but nearer the fundus it contained numerous glands.

In one uterus, in which the catamenial flow had ceased probably about a fortnight before death, the layer of superficial tissue was thicker than in the last; and near the internal orifice there was a marked and abrupt distinction between it and the subjacent muscular tissue.

In one uterus the flow had ceased three weeks before death, and the superficial layer was still thicker; and the distinction between it and the subjacent muscular layer was well marked, except at the fundus. The uterine glands were tubular, and arranged in some parts obliquely, in others perpendicularly to the surface. They were lined by columnar ciliated epithelium.

In two uteri menstruation was imminent, but the flow had not begun. In these the mucous membrane of the body of the uterus was fully developed, and had begun to undergo fatty degeneration. There was a marked distinction between it and the muscular tissue throughout the uterine cavity: it was highly congested.

In one uterus the menstrual flow had taken place for one day, and in another for two or three days before death. In these there was extravasation of blood into the mucous membrane, and the latter had in part been disintegrated and removed.

Menstruation appears essentially to consist not in a congestion or a species of erection, but in growth and rapid decay of the mucous membrane. The menstrual discharge consists chiefly of blood and of the débris of the mucous membrane of the body of the uterus. The source of the hemorrhage is the vessels of the body of the uterus. The mucous membrane having undergone fatty degeneration, blood becomes extravasated into its substance; then the membrane undergoes rapid disintegration, and is entirely carried away with the menstrual discharge. A new mucous membrane is then developed by proliferation of the inner layer of the uterine wall, the muscular tissue producing fusiform cells, and the groups of round cells enclosed in the meshes of the muscular bundles producing the columnar epithelium of the glands.—*Obstetrical Journal.*

LAMBERT H. ORMSBY,

Surgeon to the Hospital, and Demonstrator in the School of Surgery, Royal College of Surgeons in Ireland,

ON CHRONIC RHEUMATIC ARTHRITIS OF HIP-JOINT.

This is a disease that produces at times great deformity in this joint. It has, as is well known, been first accurately described by two Irish surgeons, Mr. Robert Adams, of Dublin, and by the late Professor R. W. Smith; it was formerly called chronic rheumatism of the hip-joint, then morbus coxæ senilis; but the first-named seems to be the generally accepted term in the present day to denote this peculiar disease. Mr. Adams says, as to the cause of this chronic disease of the hip joint he believes little is known. We have heard it frequently attributed to the effects of cold and wet, and an acute attack of rheumatic arthritis of the hip joint produced by cold we can easily conceive may occasionally merge into the chronic affection we wish to describe. We have also reason to think that falls upon the greater trochanter have given rise to the first symptoms of this disease, but in many cases no satisfactory cause can be assigned by the patient for the origin of the affection.

Symptoms.—It generally occurs in those advanced in life, over 50 but may arise sooner—between the ages of 50 and 70, the most common. I have seen it more in men. One hip or both may be effected, also other joints in the body. It commences by the patient complaining of great stiffness in the joint, and about the greater trochanter a dull boring pain is felt, extending down the front of thigh to knee; the stiffness is most felt in the morning; if the patient has walked much in the day the stiffness and pain are severe in the evening; there is a limitation in the range of motion, pain is felt when the patient places full weight on the affected joint, but when the surgeon presses the head of the bone up against the acetabulum no appreciable pain is experienced, the limb is shortened for about two or three inches, which varies in different subjects, but it is more apparent than real, owing to the obliquity of the pelvis, the nates is flat on the affected side, and the muscle appears wasted. When the joint is rotated, crepitus, owing to the grating, can be heard occasionally. A

patient so suffering finds a great difficulty, in fact, in some cases it is impossible, to bend so much as to touch their toes; the attitude of standing and mode of locomotion are quite characteristic—they stand on the sound leg, slightly bent forwards in body, and rather spread the affected limb out, and with a slight bend at the knee, and the mode of locomotion is generally by the aid of two sticks, and is accomplished very slowly and interruptedly, the body slightly bent forward at the hip. The anatomical or pathological appearance in the joint is as follows: The muscles are flabby and atrophied, the capsule is thickened, the synovial fluid is deficient, and if any of the subsynovial tissue is present, it is very red and vascular, the cartilage of incrustation is removed from the bottom of the acetabulum and head of the bone, exhibiting at times a polished porcelainous appearance, due to friction of the two bones against each other; the cotyloid ligament is frequently ossified; the acetabulum is deeper and larger, and forms a deeper cup than usual, with a level brim round the head of the bone, and narrowed so as to make it difficult to remove the head of the bone when required for examination after death; the Haversian gland is completely removed; the ligamentum teres is either ossified or entirely destroyed; the head of the femur is rounded, or depression, or bony ridges or nodules are seen on its surface; the neck is shortened. Cases of this disease have before now been mistaken for osseous tumour in intracapsular fracture; these little bony deposits may be developed round the acetabulum and capsular ligament. I merely mention this disease on account of the deformity, in order that you might be aware of it and not mistake it for anything else. As regards the treatment it is at its best state but palliative; as yet no remedies are suggested for the purpose of curing it permanently, being a disease of advanced life and one of disorganisation and degeneration of the several tissues constituting the joint. *Medical Press.*

SUBCUTANEOUS INJECTIONS OF ERGOTINE FOR THE VARICOSE VEINS OF PREGNANT WOMEN.

At a meeting of the Obstetrical Society of Berlin, in April, 1873, Dr. RUGGE related a case where he had obtained marked results from the use of ergotin. A woman, 36 years of age, who had suffered exceedingly, during a previous pregnancy, from varices, came under his care in the eighth month of pregnancy, suffering from her previous trouble. The veins of the left leg and thigh were enlarged, dilated, and tortuous.

Injections were made subcutaneously with from one to two grains of ergotin, and repeated every few days. The action was very apparent after the first injections, and after the seventh the varices had almost disappeared. The right extremity was not affected.

There was some pain and infiltration following each insertion of the instrument, but no abscess occurred. The ergotin had no influence in provoking labour-pains.—*Med. Record*, April 1, 1874, from *Berlin Klin. Woch.*, 44, 1873.

THE CANADA MEDICAL RECORD

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MEDICO-CHIRURGICAL SOCIETIES.

Among the many features which the medical profession of the day presents, there is none so peculiar as the tendency to organize and form societies, both local and general.

We are impressed with this fact on perusing the different medical exchanges which are sent us, for in them all do we meet with reports of such societies. Much that is valuable is by such means made public, and facts which otherwise would be lost to the general body, are recorded. Thus thought answers to thought and a spirit of investigation and observation is engendered, so that the tendency to narrow one'sself down to routine duty is removed, broader views being inculcated. This is as it should be, and we deem it the duty of those whose experience and reading fit them for discussing medical questions to take an active part in such meetings, that the younger and rising generation may have an example to follow out the spirit thus shown. Probably not the least benefit derived from such meetings of the profession, is the kindly feeling and fellowship which, fostered by association and the influence thus exerted, does more to control the actions of each individual then all the ethical rules which may be published. The younger practitioner specially feels this, and requires that countenance and support which such combinations offer, and which will sustain him in his early difficulties. From the difference in language, Montreal is, unfortunately, obliged to have two medical societies, and thus a separation is established between the members of the profession, the result being that one section is almost unknown to the other. Our remarks have been induced by the languishing state of the English-speaking society, and we consider it a shame on the part of its members that so little interest is manifest in its behalf.

Of late its meetings have been so poorly at-

tended that the proceedings have often been delayed until a chance comer should enter to complete the quorum, and this even with the small number required to form such quorum, which was reduced on purpose to meet like contingencies. Even this small quorum sometimes cannot be had, for lately the meeting was called with a resulting attendance of the President, Secretary, two gentlemen who were to read papers, and one other member. Surely this is too bad, for elsewhere in country places, where societies exist, their members travel considerable distances to attend the meetings of their society and partake freely in its discussions. Montreal which is supposed to be the head of the Dominion in all matters, hardly furnishes sufficient medical men who maintain an interest in the working of its medical association, and but few of the senior members of the profession ever put in an appearance at its meetings. How many previous associations have existed in Montreal we have not made out, owing to the paucity of reports obtained in the medical periodicals of the past; but we trust that the present association will institute full reports of proceedings, so that the future inquirer into such histories may have extended facts to guide him.

Twenty-five years ago Montreal could boast of two societies, a Medico-Chirurgical and Pathological, and among the names of their officers we find many who are still active and well known among us to-day. We are suprised that they should have suffered the society to lapse, seeing that they have been active in promoting those which have been subsequently formed. In August, 1865, a society was again established with the old title of Medico-chirurgical; Dr. G. W. Campbell being its first President. To combine both sections of the profession, the officers were chosen from the English and French members, and it was permissable to use either language, and many valuable communications were brought before the Society. We notice in the report read at the annual meeting, held on the 15th of January, 1866, that there were 80 physicians practicing in Montreal at that time, about half of whom were members, and the hope was expressed that all would be included by the next annual meeting. At that meeting Dr. Hingston was elected President for the following year, but that year was barren of result; owing, no doubt, mainly to the difficulties which arose from the use of both languages. The society soon ceased to exist.

Another effort was made to establish a society, and, on the 12th of November, 1870, the present Medico-Chirurgical Society was ushered into existance. It has survived four years, and during that time many valuable papers have been read, and subsequently published in the medical journals. During the first three years the meetings commanded a good attendance, but the past year has shown a falling-off in attendance and great lack of interest until it has reached the result of being unable at times to obtain a quorum. Even at the annual meeting the attendance was smaller than what might be expected and leads to the impression that this society will also be soon numbered with the past. We hope not, however, but trust that each and all will deem it their duty to attend regularly and take part in the proceedings; and that there should be no difficulty in getting papers, it should be the pleasure of each member to carefully prepare one, so as to be ready when his turn comes. Heretofore, the Secretary has had difficulty in inducing members to give papers, and when some of them have been brought before the society, the reader has excused deficiencies on account of the hurried manner in which the paper was prepared. This is not what should be expected; if hurriedly written they do not reflect credit on the reader, nor do they command the attention of his hearers, and thus interest is lost in the society. We trust that a new life and energy will be infused into the Society, and in future its meetings will be characterized by discussions worthy of the position which the city and its physicians occupy in the Dominion and thus set an example to other associations. At the annual meeting, which occurred on the 16th of October last, Dr. Hingston, the retiring President, delivered the usual address, which embraced many of the questions now agitating the scientific and literary world. As this address will be published in our next, we forbear making any remarks upon it. At its conclusion Dr. Hingston received a vote of thanks for his valuable paper, and also for his conduct in the chair during the past year. The following officers were elected for the coming year: President, Dr. Reddy: 1st Vice, Dr. Godfrey: 2nd Vice, Dr. Craik; Secretary-Treasurer Dr Roddick. Council, Drs. Hingston, Fenwick and Gardner.

HEALTH OF MONTREAL.

The following is an abstract of a report sent us by Dr. Larocque, one of the Health officers of the city.

In September there occurred 577 deaths; of these 464 were children under ten years, and 224 were from zymotic diseases. The mortality in August was 785, of these, 678 being children. Small-pox, scarlatina, and whooping cough had about the same number of victims in September as in August, but typhoid fever has considerably increased in fatality, there having been 22 deaths therefrom in the former month, against 13 in the latter.

Whooping-cough is the infantile disease that seems increasing most, 23 deaths from it having occurred in August and September.

The Health officers desire legislation for the purpose of instituting by-laws for the prevention of disease. The regulation it is desired to enforce comprise such as the following:

That medical men report to the Board of Health all cases of disease coming under their treatment within twenty-four hours thereafter.

That all boardinghouse, hotel or house keeper report cases of contagious disease on their premises to the Board.

The Health officers to visit localities where contagious maladies exist and adopt such precautions as may be required, such as sending patients to hospital when they cannot conveniently be isolated; disinfecting or even burning all that can possibly spread the contagion; and in cases of small-pox, vaccinating or re-vaccinating members of the family, neighbors or attendants on the sick most exposed to the infection.

The Corporation ambulance to be alone employed for transport of the sick, carters or other persons being strictly forbidden to do so.

Bodies of persons deceased of contagious diseases to be disinfected and interred within so many hours after death as may be decided on; simple hearses devoid of trappings or other ornaments that might absorb the contagion only to be used: and the bodies not allowed to enter any church or charnel-house, but be at once buried.

The officers of Health and Sanitary police to have authority to enter into any house or other building, and examine its sanitary condition from top to bottom, and inquire into the vaccination or non-vaccination of the children.

To facilitate vaccination the city to be divided into four districts, with an office in each, for performance of the operation, and where a register of vaccination will be kept.

Forms to be distributed to the different religious denominations for record of births, and to be collected by the officers once a week; with aid of these it will be possible to have children vaccinated at the legal age and form a statistical compilation of some value.

Death certificates should only be signed by a doctor and brought to the Health Office; when no certificate is given the Board reserve right to hold an investigation to ascertain the cause of death.

The sale of milk must be regulated, as it is at present sold in such an adulterated and dilluted form as to be insufficient to nourish children. Adulterated liquors, being the cause of frequent sickness, should be analyzed, and their sale also regulated.

DEATH FROM CHLOROFORM.

One of these deplorable accidents occurred lately in Kingston, the victim being a lady who was having a tooth extracted. The occurrence of like fatal issues is from time to time recorded in the news of the day and most generally from chloroform having been taken during the performance of some minor operation, especially in dental surgery. We have been struck with the fact, and can only account for it by the nature of the operation which generally permits or requires patients to assume a sitting posture. This position favors cerebral anemia—which is the cause of death, so that the first remedy to be tried is change of posture as advised by Nelaton. The patient to be inverted with the feet upwards and head downwards. In a case reported by Dr. Sims, of New York, life was restored by this method after respiration had ceased for fifteen minutes, and other cases are recorded where this plan had succeeded after other plans had failed.

We are informed that the Medical Faculty of the University of Bishop's College have been placed on the list of Medical Schools recognised by the Royal College of Surgeons of England.

REFIEWS.

A Practical Treatise on the Diseases of Women. By GAILLORD THOMAS, M.D., Prof. of Obstetrics and Diseases of Women and Children in the College of Physicians and Surgeons, N.Y., Surgeon to the New York State Women's Hospital, Hon. Fellow of the Obstetrical Society of London, &c., &c. Fourth Edition, thoroughly revised, with 186 illustrations on wood. Published by Henry C. Lea, Philadelphia: Montreal, Dawson, Bros.

To favorably notice a treatise that has already attained its 4th edition within five years, that has been translated into German, and is now being prepared for the French and Italian press, is a work of supererogation so far as commending it to the profession is concerned, but is nevertheless one of the most pleasing duties that falls to the lot of the reviewer.

The first chapter is devoted to a most instructive and able summary of gynecological history, wherein we learn that many of the most useful of recent discoveries are but the reproductions of past ages that have been long lost to science. Notably is this the case with reference to the uterine sound and vaginal speculum.

The second chapter is occupied with most valuable information upon the important subject of the etiology of uterine disease. Improprieties in dress, and want of care during menstruation and after parturition, are treated with well merited condemnation as fruitful sources of disease.

Chapter iii., on the diagnosis of diseases of the genital organs, is a succinct summary of all the known modes of investigation together with clear instructions as to their use in order to attain satisfactory results.

Chapter iv., on diseases of the vulva, gives a complete description of the diseases of this part, without reference to specific diseases common to it and other parts of the body.

Chapter v. is devoted to rupture of the perineum, and not only details the various modes of procedure, but illustrates the subject with original drawings that cannot fail to impress a clear conception of the appropriate treatment upon the mind.

Chapters vi. and vii. are devoted to diseases of the vagina.

Chapter viii.—On atresia vaginæ. We note with pleasure that, among the various methods of evacuating retained menstrual blood, the aspirator is strongly recommended as a preliminary procedure, to the operation, necessary to render the outlet potent per via naturalis. This course very materially lessens the danger to the life of the patient.

Chapter x. gives an exhaustive catalogue of urinary, fæcal and simple vaginal fistulæ; among the latter we notice a rare form, not mentioned by other writers, viz., vesico-utero-vaginal fistula. The whole subject is handled with skill, and the various instruments required to perform the operation, together with the operation itself, are illustrated by drawings, some of which are original.

Chapter xii. is occupied with general considerations upon uterine pathology and treatment. The causes of failure in therapeutics are treated at length, and deserve the careful attention of all who occupy themselves with this branch of the profession.

Chapter xiii. deals with acute endometritis and its complications. The authors deem acute parenchymatous *metritis*, as a primary affection, to be of rare occurrence, and that it should occupy a subordinate place in pathology. This view is supported by very able argument, and will doubtless carry conviction of its truthfulness to those who take the trouble to thoroughly investigate the subject.

Chapter xiv., on chronic cervical endometritis gives a complete exposition of the predisposing and exciting causes of this most common and important form of uterine disease. In the treatment the author gives a number of original wood cut illustrations of the various instruments recommended. One point of no small moment in the application of liquid caustics is overlooked, viz., directions for protecting the adjacent structures from injury; which can easily be accomplished by flooding the neck up to the cervical canal with a neutralizing solution.

We are glad to see that Dr. Thomas does not favour the use of nitrate of silver, as it is not so powerful an agent as the fuming nitric acid. This is quite true, but he might have gone a step further and reprobated its use on the ground of its favoring obliteration of the cervical canal; a result that is not unfrequently obtained by means of this agent.

The use of the curette is spoken of, and its value in the treatment of obstinate cases of

inflammation of the mucus glands of the cervical canal is worthy of trial by those who know what it is to deal with these difficult cases.

Chapter xv. treats of chronic corporeal endometrites, and leaves nothing to be desired with regard to the etiology or treatment. The question of intra-uterine medication is dealt with in a masterly manner. Intra-uterine scarification is touched upon and commended, although the author has had no experience in that form of treatment.

Chapter xvi.—On areolar hyperplesia of the uterus, or the so called perenchynatous metritis. Here the author roams with freedom on new territory, not that the condition had not been noticed by others, but that it was left for him to recognize its true pathology and place the subject in its true light. The doctrine enunciated as to the non-inflammatory character of this disease and which ascribes it to the hypergenesis of the uterine tissues, if not generally accepted by the profession, will not long remain unrecognized by those who give the subject their serious consideration. The chapter is replete with everything referring to the subject.

Chapter xvii. deals with granular and cystic degeneration of the cervix uteri. The granular condition is discussed at great length. The treatment recommended leaves nothing to be desired, and commends itself to the judgment as rational and scientific.

Chapter xix. and xx., are occupied with displacement and descent, of the uterus and exhibit the usual thoroughness of the author.

Chapters xxi. to xxv., inclusive. thoroughly exhaust all that can be said on the pathology and treatment of the various forms of uterine versions and flexions. The subject is largely illustrated both as regards the various forms of displacements, by original and instructive drawings. The value of pessaries is insisted upon in suitable cases, while their improper use and the evils they may cause are strongly spoken of and warned against.

Chapter xxvi., on inversion of the uterus, its pathology, diagnosis and treatment, is one of the most valuable chapters in the book. Remarkable success has followed persevering and well directed attempts at reduction even after 5, 10, and 17 days effort.

The author earnestly deprecates excision except as "dernier resort," which from the foregoing remarks means much more than the expression generally conveys to the mind.

Chapters xxvii. to xxxi. are occupied with periuterine cellulites, pelvic peritonitis, pelvic abscess and pelvic hematocele, and are of great value.

Chapters xxxi. to xxxiv., upon uterine fibroids and polypi. are very full and complete; although the conclusions of the author with regard to gastrotomy for removal of the uterus in cases of fibro-cystic and fibroid diseases connected with it, are hardly in accordance with what one would expect from the success that has of late attended the operation. Surely the advice "that if it (the tumor) be completely amalgamated with the uterus, or so bound to neighbouring parts that removal proves difficult, the operation may be abandoned" is more than a doubtful commendation and quite unwarranted by the recent success that has attended that operation.

Chapters xxxv. and xxxvi. are occupied with uterine cancer and moles, and, while complete, present nothing new upon the subject.

Chapter xxxvii. deals very thoroughly with uterine and ovarian dysmenorrhœa. The subject is illustrated by numerous drawings of the latest and most approved instruments employed in the treatment of the disease.

Chapter xxxviii. on menorrhagia, and metrorhagia is very full and satisfactory to the reader. The causesare grouped under four heads, which place the whole matter clearly before the mind.

Chapters xl. and xli. briefly touch upon leucorrhœa and sterility, and might have (for all practical purposes) been omitted; inasmuch as all that is connected with these subjects are fully treated of in other parts of the work.

Chapter xlii., treats of amputation of the neck, and, as a result of some experience, the author strongly recommends the use of the galvanic cautery where available.

The remaining chapters, with the exception of a short notice of chlorosis, are occupied with diseases of the ovaries and ovariotomy. The author gives a very able summary of the whole subject, and leaves no point of value unnoticed.

In conclusion we can cordially commend this work to the profession as the very best extant upon diseases of women. There is a fulness of research, and richness of original matter, pre-

sented in a pleasing, vigorous style, that is most refreshing to meet with.

The illustrations are clear and distinct, and the workmanship, as to both printing and binding, is admirably executed, and does credit to the well known publishers.

The Complete Hand-book of Obstetric Surgery, or short rules of practice in every emergency, from the simplest to the most formidable operations connected with the science of Obstetrics, with numerous illustrations. By CHARLES CLAY, M.D., late senior Surgeon and Lecturer on Midwifery, St. Mary's Hospital, Manchester, Fellow of the Obstetrical Society of London, Hon. member of the Louisville Obstetrical Society, late President of the Medical Society, Manchester, &c. Third Edition: Lindsay & Blackiston, Philadelphia, 1874. Montreal; Dawson Bros. Price $2.25.

The modest title of "complete handbook" suggests much complacency and self-satisfaction as to the perfection of the work on the part of its author.

We are free to commend it as embodying very many valuable rules of practice, but find that like other human productions it cannot be called "complete." A thorough exhaustive of the whole subject treated of, could not be expected in a small work of some 300 pages. There may be some compensating advantage in small hand-books, that can be carried round in the pocket for reference, but we believe that critical seasons present no opportunity for consulting your pocket companion.

In the little book before us we notice what may well be called some grave omissions and a few small errors: when speaking of tying the cord, the author says nothing about the advantage of allowing a few drops of blood to escape when a child is still-born and there is capillary congestion. Such a procedure favors the establishment of respiration and often saves the child's life.

It seems strange that any writer of the present day should recommend the use of glass specula, or single curved forceps, yet such are the views of Dr. Clay, from which the best authors of the day strongly dissent.

With regard to the discovery of the placenta the author has quite overlooked the fact that the cleanliness and comfort of the patient can be secured by the use of a quart bowl for the reception of the liquor amni and placenta: also, says nothing of the aid that can be given, both to the passage of the head and protection of the perineum, by the now well-known process of enucleation, when the occiput is well under the arch of the pelvis. The fact that the hand pressed over the body of the uterus during the last pain that expels the child generally causes the placenta to descend and occupy the vagina as the child passes into the world, is not mentioned.

In the treatment of post partum hemorrhage it is strange that the author does not so much as refer to the use of the solution of per-chloride of iron, the most efficacious and speedy of all known methods for arresting hæmorrhage where life is in imminent danger.

With regard to irregular contractions sf the uterus and irregular labor, while we readily admit the character of such labors may generally be changed to a natural one by an opiate, yet such desired result cannot be secured in other cases where the trouble is due to decidual adhesions around the os, where detachment of the membranes or their rupture alone can accomplish it, as recommended by authors.

Much doubtless can be said to the praise of the little work, but we have thought it right to point out some serious defects that appeared to us in glancing through its pages.

A Manual of Toxicology, including the Consideration of the Nature, Properties, Effects, and Means of Detection of Poisons, more especially in their medico legal Relations. By JOHN J. REESE, M.D., Professor of Medical Jurisprudence and Toxicology in the University of Pennsylvania. Philadelphia; J. B. Lippincott & Co., 1874. Montreal; Dawson Bros.

The author of this book, in his preface, has anticipated the objection that, in view of the many excellent existing treatises on toxicology, in various languages, a new work on the subject was uncalled for. "This objection," he says, "however, might be equally urged against new publications in almost every department of science, there is scarcely one, of which it may not be affirmed, that its literature is abundantly supplied. Yet this does not deter new authors from venturing before the public, prompted,

doubtless, by the desire of offering something of at least a passing value, and of adding, it may be, a fragment to the store of human knowledge." What we have seen and read of this book, in our opinion abundantly justifies its claims to existence, and we have no doubt that, to the student especially, it will prove a useful work. The author has not scrupled, whenever it seemed to him proper, to make use of the recorded experience of other authorities. The pages of the book are enriched from Taylor, Guy, Christisen, Orfila, Tardieu, Caspar, and in the author's own country from Wharton & Still's "Medical Jurisprudence," and Professor Warmley's Nuero-Chemistry of Poisons," a work which well deserves to be called magnificent, when we consider the profusion and excellence of its illustrations. The first part of the book is devoted to "The Mode of Action of Poisons on the Animal Economy; Circumstances which modify the Action of Poisons; the Post-mortem Inhibition of Poisons; the Evidences of Poisoning; and to Medico-Legal questions connected with Poisoning. A chapter is also devoted to "The Duties and Privileges of Medical Experts." Here our author deplores what has been sneeringly termed by newspapers, the "war of the experts;" that collision and difference of opinion which, from its frequency, the public have come to expect as a matter of course, and, in consequence, to reject all expert testimony as superfluous if not worthless; "a result which, it is to be feared, is not unfrequently reached also by the jury, to the great and manifest disparagement of justice." This unfortunate state of affairs is due to the fact that, in trials for poisoning as well as other medico-legal cases, it is quite usual to find medical men summoned as experts, both by prosecution and defence, who have never made the subject of toxicology a special study, and are, of course, ignorant of the important details of the science; but who, nevertheless, because they are "doctors," and are erroneously supposed to know, will venture to assume this most important function, and will even presume from the witness-box to enlighten the court and jury on one of the most intricate branches of science, and will hazard opinions which may probably determine the momentous issues of life and death."

The remedy suggested is, of course, the only proper one, and it is simply marvellous that it has not been applied sooner in England and France, as well as in the United States and our own country, where the old objectionable system still prevails. These improvised experts should, of course, be excluded from poison trials, and the responsibility confided to genuine experts, as in Germany, where, in criminal cases, the experts first summoned "are exclusively those whom the State, after proper examination of their competency and skill in such particular inquiries, has duly authorized to act for this purpose; while, in addition, there is organized a tribunal of experts, to which the opinions of expert witnesses can be referred."

Some such remedy as this just mentioned is urgently needed to save medical evidence from the opprobrium from which it too often justly suffers.

These general questions having been disposed of, the author proceeds to the toxicology of particular poisons. He adopts the classification adopted by Taylor, but with some slight modifications. Poisons are divided into two classes, irritants and neuratics, the latter being divided into (*a*) cerebral, (*b*) spinal, and (*c*) cerebro-spinal. The individual poisons are then treated in detail, those which are most frequently employed coming in for a proportionately larger share of attention. The tests for each are given with due attention to detail. This part of the work is thoroughly up to the time.

The author has not, however, entered on the subject of spectrum analyses. The following are his reasons:—"This truly beautiful method of analytical research has developed the most wonderful results, both in chemistry and in other departments of medical science. In point of delicacy, it far transcends the most subtle and refined chemical reactions, and as a corroborative means of evidence, it will doubtless prove of great value to the toxicologist. But, as it deals, so to speak, with infinitesimals, we do not think that it would be safe, in a case of alleged poisoning, to rest the evidence solely upon the spectral demonstration of the supposed toxic agent, to the exclusion of the recognized chemical tests. When an accumulated experience with spectral analysis has rendered the identification of the various poisons absolutely and exclusively certain, we can probably afford to abandon altogether the more tedious and complex methods of chemical research.

In conclusion, we have to say that we confidently believe that this book will prove a valuable addition to the literature of the profession.

Surgical Emergencies together with the Emergencies Attendant on Parturition, and the Treatment of Poisoning. A Manual for the Use of General Practitioners. By WILLIAM PAUL SWAIN, F.R.C.S., Surgeon to the Royal Albert Hospital, Devenport. Philadelphia, Lindsay and Blakiston, 1874. Montreal, Dawson Bros. Price $2.00.

Though this work cannot be considered anything more than a compilation from the more recent authorities in surgery, yet it is exceedingly valuable in presenting to the busy practitioner in a condensed form a clear and concise statement of the treatment to be adopted in emergencies. An opportunity is afforded to refresh the memory with the necessary conduct of such cases, and thus remove doubts as to the course to be pursued. The 82 illustrations which are scattered throughout the work appear at once to the eye and add to its value, so that altogether we consider it to be one of the most valuable and instructive manuals extant. The experience of the author has enabled him to present to the profession all that is valuable and necessary, and therefore we cordially recommend the work to our fellow practitioners. The chapter on antiseptic treatment is of great value, and is in our opinion of most importance. As the cost of the manual is only two dollars, no practitioner should be without it, especially those engaged in country practice. The size is such as to admit of its being carried in the pocket, and it will often be found to repay the cost when its owner cannot obtain a consultation owing to distance from a confrère.

The Sanitary Journal. Devoted to Public Health. Edited by EDWARD PLAYTER, M.D. Pp. 32. One dollar per annum in advance; single copy, twenty cents; Toronto.

With the exception of a bulletin issued by the Health Officers of Montreal, this is the only Sanitary Journal published in Canada. The growing importance of the science of hygiene calls for the publication of such works, and, while they are useful to the physician, their perusal is of vital interest to the public, who will thereby gain information as to the best means of preventing disease and prolonging life. We wish it every success, and trust that it will be the means of doing much good.

The Physician's Visiting List for 1875. Lindsay, & Blakiston, Philadelphia.

This work has now been published for the last twenty-four years, and its merits are such that its publication will be demanded for many years to come. In this city it is used by a large majority of medical practitioners, and we would advise those who do not now use it, to give it a trial, and we are assured that they will continue its use. By the concise arrangement of this diary much time is saved in making entries, and from the facilities thus afforded in recording work done, hundreds of dollars can be saved which otherwise would be lost. For prices and sizes send for catalogue of publications.

PERSONAL.

We record elsewhere the death of Dr. J. C. Anderson, who graduated at McGill, in 1865. Dr. Anderson did not enjoy very good health for a long period of time before his demise, and the physical depression thereby produced, combined with an excitable and nervous temperament, led him to be somewhat erratic in his actions. At no time did he appear to settle down steadily in the pursuit of his profession, but from time to time has changed his residence from Montreal to Sorel, and we believe elsewhere. His death occurred in this city and his remains were removed to Sorel for interment.

Dr. James C. Irvine (M.D., McGill, 1866) has returned to Montreal to reside permanently and will shortly resume the practice of his profession, at 111 Fulford street, where his office and residence is situated. After graduation Dr. Irvine entered the service of Montreal Ocean steamship Company as surgeon, remaining about two years in the service of that line, he then exchanged into the Royal Mail Line

running to the west coast of Africa; after one year's service with the latter, he re-entered that of the M. O. S. Co., remaining one year, and then finally left to again serve in the African Line. He was surgeon of the "Macgregor Laird" steamship when that vessel was wrecked on the rocks in the Bay of Crisco, where she became a total loss. The passengers and crew were landed on Eloby Island in the Bay, and were obliged to remain there nine days, during which time they were attacked by the negro savages, and in the melee which ensued several of the crew were killed, and Dr. Irvine received six slugs in the leg and a stab in the neck which laid him up for some months. On the ninth day they were taken off by a French man-of-war and carried to Fernando Po, being sent from there to England as shipwrecked mariners. While on the African line a petition was received from the British residents of Bonny River, asking him to come there, at which station he stayed two years and was through the severe epidemic of yellow fever which occurred on the coast in 1873. On his departure the residents presented him with a very handsome testimonial and expressions of regret at his leaving. While on the Bonny River, in addition to his other duties, he was physician to King George, receiving a salary of $800 a year from his sable majesty, and at one time was called to visit a sick king in the Eboe country where a white man had never before been seen or permitted to enter. Dr. Irvine has been attending the hospitals in London during the last six months.

By the time this number will have reached our readers Dr. F. W. Campbell, the editor of this paper, will have returned to Montreal, as it was his intention to sail from Liverpool on the 29th of October. He was detained in Scotland beyond the time expected for his return owing to the death of a relative, and during his stay was laid up with a severe illness which confined him to bed for some time, however, by accounts received lately, he had recovered his usual health, and we expect to see him resume his duties with renewed vigor.

Dr. Francis W. Campbell, editor of the *Record*, returned from Europe by the Allan Mail S.S. *Polynesian*, on the 9th of November, as did also Dr. Elkington, of Brockville.

Dr. Wolfred Nelson removed an enlarged thyroid gland from a young woman living in the western end of the city, on the 24th of October. The left gland alone was implicated in the enlargement, and there was no connection with the right lobe. Very little blood was lost during the operation, and the patient has since done well, the wound being almost completely healed. All the females of her family are affected with goitre. The mother has an enlarged thyroid gland of great size occupying the whole of the anterior portion of the neck. The operation was performed at the request of the patient, as the deformity gave her much annoyance.

Dr. Norman Kerr, a few years ago surgeon on the Allan line, has purchased a practice in St. John's Wood, London.

Dr. Edmond Robillard, of this city, recently paid a short visit to Europe. He returned by the *Sarmatian*, the middle of October.

HEALTH OF MONTREAL.

The health of Montreal is not by any means satisfactory. Small-pox continues its ravages—the eastern section of the city still furnishing the greatest number of victims. Vaccination is being pushed with a certain amount of vigor—and we think that already its use is being demonstrated; for the last couple of weeks (ending November 20) has shown a considerable diminution in the death-rate from this affection. The city authorities have opened a Small-pox Hospital, in an old family residence in the new Mount Royal Park, and it is doing good and effective service. We regret to notice, however, that the authorities of the Montreal General Hospital still receive this disease—believing themselves compelled to do so by a clause in a Provincial Statute. Typhoid fever is also very prevalent, there being several hundred cases in the city—many cases are fortunately of a mild type. We have also heard of several cases of true diptheria.

BIRTHS.

At Montreal on the 23rd of October, the wife of Dr. J. C. Irvine of a daughter.

DIED.

At Montreal, on Saturday, the 24th of October, Dr. J. C. Anderson, eldest son of Rev. Canon Anderson, Rector of Sorel.

At St. Leboire, on the 24th inst., after a short illness, Dr. J. A. O. Tetreault, in the 42th year of his age

The funeral took place from his late residence, at St. Pie, on Tuesday, the 27th October.

Original Communications.

ANNUAL ADDRESS BEFORE THE MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

By Wm. H. Hingston, M.D., L.R.C.S.E., &c., &c., President.
Read before the Society, 16th Oct., 1874.

Gentlemen,—Another year has glided down the stream of time, adding its record of usefulness, or otherwise, to those which preceded it in the short life history of the Medico-Chirurgical Society of Montreal.

Were the success of a society to be measured by the attendance of its members, I might feel disposed (while cavilling at their lukewarmness) to hazard the prophecy that, instead of strengthening with its years, the society presents, already, some of the signs of a decline, which hung, seemingly, from the beginning. Yet the year just ended has been as prolific in work—though the attendance, notwithstanding the increased membership, has not been greater—as any which preceded it; while numerous have been the kindly offices rendered, though not registered in the well-kept archives of our very efficient secretary. Among the recorded are the following, sufficient, I feel assured, to satisfy the desires of moderate ambition.

As the chief part of the business of the Society is reading and discussing papers at the regular meetings, I shall allude to it first. The papers read during the past year have been numerous and valuable. Most, if not all of them, have been already published in the medical journals of the country; and some have elicited flattering comments from the medical press *outre pays*.

To take them in order:

Dr. Trenholme contributed a paper on "Ovariotomy,"—an operation which, in Canada, bids fair to equal, in a low ratio of mortality, the success obtained by our transatlantic brethren.

Dr. Hingston one on "Stone in the Bladder."

Dr. Kennedy read a paper on Embolism of the left middle Cerebral Artery, with mitral disease, unique in many respects—there being no aphasia—but a heart murmur, distinct at first, finally disappearing, and post mortem appearances really indicating disease.

Dr. Bell added to the catalogue of epilepsy a case occurring in the puerperal state, in a person twenty-seven years of age, who had had the first attack of epilepsy when fourteen years of age; but who, for five years previous to the occurrence of pregnancy, had no attack; the puerperal state, however, inducing the return of the disease, which persisted with greater or less severity till time of, and after delivery.

Dr. Reddy contributed a paper on Acute Desquamative Nephritis occurring in gestation, in which labor was induced at about the sixth month, with recovery of the mother.

Dr. Simpson read one on dry gangrene of the leg, during acute mania, necessitating amputation of the leg near the knee; the case favoring the belief that the mania and the dry gangrene resulted from the same pathological states—embolism of cerebral artery or arteries, and of the vessels of the leg.

Dr. Brown submitted to the Society, along with the morbid specimen, a case of cystic degeneration of the kidney, with fungoid growth in the bladder, in which death took place by convulsions.

Drs. F. W. Campbell and *Kennedy* gave details of several cases of membranous croup, in some of which tracheotomy had been performed, without, however, saving life.

Dr. Ross, a case of syphilitic disease of the larynx where the patient was moribund, but where recovery took place after laryngotomy.

Dr. Gardner read a paper on subinvolution of the uterus, and its local treatment by nitric acid.

And, lastly, *Dr. Trenholme*, who gave the details of that bold and successful operation, extirpation of the whole uterus with its appendages.

Besides these papers—many of them of considerable value—particulars of cases were submitted to the Society from time to time, with specimens more or less interesting. Among the former I shall mention Dr. Kennedy's case of melanotic disease of the liver in a subject who had previously suffered from melanotic disease of the eyeball necessitating its removal, and in which a post mortem afforded an opportunity of verifying the diagnosis—the identity in character of the disease destroying the eye with that causing death elsewhere.

Dr. Bell's preparation of the imperfect rectum of an infant—its patency well preserved—was one of the most interesting yet exhibited to the Society. Although not dignified with a paper on the subject, it presented, in its cleanly dissected state, a pathology and an indication to treatment readily understood. Pathological specimens, such as that alluded to, impress themselves with force upon the mind, and are sometimes of really more value than the details of more successful cases; besides giving evidence of candor which we should ever be ready to appreciate.

During the year now ended, the long discussed

question of fees has received a solution. The tariff adopted in 1845 was, it was felt, no longer suited to the vastly increased, and still rapidly increasing rate or cost of living. A tariff more in keeping with the new circumstances has been adopted, not binding ' tis true upon, but suggestive rather to, the members of the profession, to proportion their charges to the importance of, and trouble in, the case, and to the circumstances of the patient; yet leaving them free to exercise, each in his own way, that tender regard for the interests of others, which characterizes the members of our calling. Let no one indulge the calumny that those efforts have been directed with a view to an earlier future of ease or comfort, or hope of pleasure, where difficulties and dangers and abnegations are the chief allurements that act on the true physician and kindle his inner genial life with a flame, as Carlyle says, that burns up all lower considerations.

Nor will those aspirations be clouded or repressed by the quasi commercial measure subsequently adopted. It has long been observed that many persons of extravagant, luxurious, or indolent habits, or of dishonest propensities, while most exacting with their medical attendant—demanding his services at hours to suit their convenience, not his—are accustomed to deny the usual honorarium. The secretary, early in the present year, was ordered by the Society to keep a book in which should be inscribed the names of persons who *habitually* act in this manner I have not seen the register, gentlemen, nor am I aware what names, if any, are there inscribed; but of this I am sure, that, speaking with a knowledge which a personal acquaintance with every member of this Society gives me, a due regard will ever be paid to those amenities which the members of our profession so well understand: and that the penalty will only be suffered to strike, if strike it should, those grosser forms of habitual dishonesty and deceit.

The year terminates with eight additions to the list of membership; and one departure for other fields of usefulness.

The Angel of death has hovered near and seemed, betimes, threatening to swoop upon some who are endeared to us. Still his hand has been stayed, and for the first time since the re-organization of this Society there is no death to record.

Taking a retrospective glance at the labors of the year just ended, I cannot perceive any signs of more than usual activity. The attendance at the meetings is not large. To what is it due? Is it that members, fatigued with the labors of the day, seek in the evening that *dolce far niente*, so welcome to the weary? Or is it, as has been suggested that, fatigued with each other, as Tully says: "qui aut tempus quid postulet non videt, aut plura loquitur, aut se ostentat, aut eorum, quibuscum est, rationem non habet is ineptus esse dicitur?" Or, is it that the novelty is over, "est natura hominum."—Pliny might have written medicorum—"novitatis avida."

It is usual on occasions of this kind to take a rapid survey of the advances made in the several departments of the healing art; but that has been done in medicine so recently by my immediate predecessor in the presidential chair, and in surgery by myself in New Brunswick, that I prefer glancing at certain phases of modern thought, indicated by the writings of those who assume to be its creators. And I crave your indulgence while endeavoring to follow the principal among them through a few, and a few only, of their mental gyrations and gymnics.

First, let me observe, gentlemen, that the objeccts of scientific thought may be, as claimed by a great modern luminary, "the passionless, emotionless laws of *external* nature withdrawn from the region of the feelings, and pursued by the cold, dry light of the intellect alone," but the *subject*, man, carries with him into all his works, a heart, humble or proud—an eye, clear or jaundiced—an intellect warped or unprejudiced; and thus the moral and the emotional soon become associated with the intellectual, if they were ever, for a moment, separated. The contemplation of nature, and his own relation to her, is somewhat calculated to produce in the philosopher a kind of spiritual exaltation. Religious feeling (or an inward emotion akin to it) and philosophy cannot be kept apart (why should they?) but overflow, the one into the other.

Of late years, certain men of science, craving for public notice, would seem to have departed from that passionless, emotionless contemplation of nature's laws, and, instead of methodically arranging and digesting that which is known, or may be known, seem, by the aid of their imagination, to have endeavored to furnish explanations of untranslatable phenomena, and that, too, in a phraseology as difficult to be understood as, nay, more difficult than, the phenomena themselves; and with a boldness that may challenge admiration, if not imitation. The true function of the natural philosopher is the consideration, the elucidation, of facts. But facts seem no longer to satisfy the mind, and thus we are made to travel from fact to principle, or to conjecture, or to supposition—away, perhaps, from the fact, to the mind's appreciation of that fact; and fact or re-

ality may be lost in the accidents which accompany, or qualify, or with which we may choose to clothe it. The fact is known to one; the hypotheses are dealt with by many who may not even know, or may have forgotten, the fact; for there is a quickness, as Count Rumford says, "in inventing reasons to save a theory from destruction, but a slowness to enquire whether those reasons are not merely the fine spun fancies of the brain" Much of so-called modern science would seem to be largely mixed with that egotism. Its leading maxim, says the erudite Dr. Marshall, appears to be this, that "whatever you believe, if you believe anything, you should, at all events, believe nothing that was ever believed by any body else;" while "unresolved questions of science, which cannot be weighed in the balance of experimentalists, must be dismissed to the regions of the unknowable."

At no period of the earth's history, I firmly believe, was there ever displayed so much mental conceit as at present. Wendell Phillips, in this city one evening last winter, styled it, as you may recollect, the arrogance of the nineteenth century. Especially is this mental arrogance observable among those who regard natural knowledge, as Mr. Huxley says, "as a sort of fairy godmother, ready to furnish her pets with shoes of swiftness, swords of sharpness, and Aladdin's lamp, so that they may have telegraphs to Saturn, and see the other side of the moon, and thank God they are better than their benighted ancestors." Is that conceit well founded? Humboldt thought not, and in his *Cosmos* ridicules, to use his own words, the "superficial omniscience," the "pretended conquests," the "superficial half-knowledge" of our age. How much more cause for this complaint would he have, had his life been prolonged till now, when system quickly usurps system, and when we become, without knowing it, blind followers of one system, and blindly hostile to other systems, without, perhaps, being quite logical in either course. Fortunately, for true science, the crowd of confiding worshippers, who fall down before the new idols (whether the name, let us say, of a Darwin, a Tyndall, a Huxley, a Hubboch, or a Spencer, be engraved on the pedestal)" are constantly shifting from one idol to another and the cry: "Vive le Roi" (of science be it understood,) awaits not the announcement: "Le Roi est mort."

The first-named—Darwin—whose work on the "Origin of species" has effected "as complete a revolution in biological science as the Principia did in astronomy;" because, as its eulogist says, "it contains an essentially new creative thought," is the head and front of this crusade. Yet, the equally learned Mons. Flourens, and with him the whole school of French physiologists, with some reason ridicule both his doctrine and his language. M. Vial—no mean authority in science—ridicules "les gasconades de Monsieur Darwin et le Darwinisme." Monsieur de Quatrefages denies to Darwin's theory what ever it may be worth—the merit of originality; and asserts that it was put forth by Monsieur Naudin prior to its publication in England. Professor Owen—and I mention the name with profound respect and admiration, as that of one who displays a wide knowledge of the laws and relations of things—says of Darwin's hypothetical transmuting influences: "past experience of the chance aims of human fancy, unchecked and unguided by observed facts, shows how widely they have ever glanced away from the gold centre of truth." But a newer name—that of Mr. Huxley—and a newer philosophy—Huxleyism doctrine of the protoplasm, receive their share of worshippers. A newer philosophy still—that of Mr. Herbert Spencer—that "great system of scientific thought," as it is termed—the "most original and most important mental undertaking of the age" as the reviewer has it. A system which differs from *all* predecessors—says the book-seller—in being solidly based on the science of observation and induction; (Simeon-like, how grateful we should be!) in representing the order and course of nature, says another; in bringing nature and man, life, mind and society under one great law of action, says a third; a system whose author is styled by Masson "the one who has formed to himself the largest *new* (everything must be new, or it wont do) scheme of a systematic philosophy;" "one of the acutest metaphysicians of modern times," according to Stuart Mill; "one of our deepest thinkers," according to Joseph Hooker. I might multiply at pleasure, these adulatory effusions. Surely, gentlemen, we might now say with the old song: "if there's peace (intellectual, of course) to be found in this world, a heart that is humble might hope for it here." But while the philosophy of evolution has its admirers, and they are not a few, it fully satisfies not many beyond those who admire it for its ingenuity, and for its beauty and elegance of style. Alas! the physiological units are the theme of ridicule by the Comtists and others, while Darwin—the great Dawin—object of Huxley's veneration, disputes the terrain with Spencer. The osmosis of the former will not be allowed to yield to the physiological units of the latter; and the world of scientists is lodged

in opposing camps—compared to which, Woolseley's camp, and that of the king of the Ashantees, are friendly to each other. On both sides we perceive dogmatism—and "dogmatism in matters of science," says Creation's Testimony, "is the more intolerable, seeing that the so-called demonstrations of one age have sometimes been the butt and ridicule of succeeding generations." Is it not true that much of what we, who are still among the quick, hold to be most firm in science, receives rude shocks from time to time. Dalton's theory of atoms—the very base and groundwork of our chemical fabric—is overthrown, or attempted to be overthrown, by speculations touching electric conduction and the *nature* of matter; and *that* overthrown, would entail the subversion of all ordinary scientific ideas regarding the nature and relation of matter and force. The whole science of physiology has undergone remarkable changes since many of those now listening to me first acquired a partial knowledge of its principles; while in chemistry, the whole nomenclature is changed. (But those changes in chemical and in physiological science partake, no doubt, of the general evolution of things.) If we are in doubt whether the fibrin of the blood is highly developed albumen, itself formed from the food we eat; or, whether it is albumen which has already served its purpose in the economy, matters little, for we are brought into contact with a protoplasm by Mr. Huxley; with physiological units by Mr. Spencer; with osmosis by Mr. Darwin; with the dynamic principle of the universe; and these embrace all that is known in the *natural* world; while Mr. Buckle completes the *moral* view by his nice and easy balancing of the virtues and vices. Beyond these, it is scarcely necessary to go for an elucidation of everything that formerly *appeared* hidden to all their and our predecessors. How measure our gratitude!

Of the first and greatest—Darwinism—where it will lead to, and where it will stop, if it ever does stop, are matters of conjecture. M. Cauret, a disciple of Moquin Tandon, a disciple of Darwin, says: "man is a mammifer of the order primates, constructed for the erect position, and separated from the anthropomorphic apes by characters of often less importance than those which separate the anthropomorphic from the inferior apes." Very flattering, indeed, to the apes! He smiles at the attempt of Geoffrey St. Hilaire to erect a human kingdom on physical qualities, as the final limit of the admiration of man for man—"le dernier terme de l'admiration de l'homme pour l'homme." The *British and Foreign Medico-Chirurgical Review*, for October, 1870—from which I quote—remarks that "the school of philosophers who believe that they can persuade mankind that they are nothing more than developed monkeys must have an admiration for their own abilities which cannot possibly be surpassed, although the fact of their holding the belief testifies to the very low estimate they must have formed of the thinking faculties of other people."

Dr. Bastian endeavors to prove the *spontaneous* origin of life. He *thinks* he produces from *dead* matter, and from the centre of certain crystals (the neutral ammonia tartrate for instance) certain spores and filaments which have a considerable resemblance to those of true organic matter! No doubt, from something having a *resemblance* to true organic matter, healthy living organisms will, in the course of time, be produced, and *when* produced, and handed over to Darwin, mounting with him "through the various spires of forms" they will go on from one gradation to another, from the *resemblance* to organic matter, till man, to the highly developed monkey appears upon the scene! The fact, he says, that animals "with such distinct and specific organs, and of different sexes too, should arise in this definite manner from the reproductive products of a plant will, doubtless, seem to flavor more of fable than of fact." And in this we may safely agree with him. Life, with him, arises by what he styles archebiosis. But, says the Reviewer, who seems to imply a doubt in Bastian's veracity, it is necessary that all his experiments, amounting to more than a thousand, shouldberepeated by some one "who takes no share in the polemics of the day."

Winwood Reade, not to be outdone by Bastian, seizes man before he is ushered into this sinful world, (Liebig waited till the baby was born before he dissected it) and thus deals with him: "At last the hour of birth approaches; coiled within the dark womb he sits, the image of an ape; a caricature and a prophecy of the man that is to be. He is born, and for sometime he walks only on all fours; he utters only inarticulate sounds, and even in his boyhood his fondness for climbing trees would seem to be a relic of the old arboreal life. Since, therefore, every man has been, himself, in such a state that the most experienced observer could not, with the aid of the best miscroscopes, have declared whether he was going to be man or plant, man or animalcule, man or mollusc, man or lobster, man or fish, man or reptile, man or bird, man or quadruped, man or monkey" (still harping on the monkey) "why should it appear strange that the whole race had also its animalcule and its reptile days. But, whether it appears strange

or not, the public must endeavor to accustom its mind to the fact which is now firmly established, and will never be overthrown." So says Mr. Reade, whose knowledge of anatomy is more imaginative than accurate, and who, while treating of anatomy and physiology, zoology and anthropology, displayed so large an amount of conceit, and so profound a depth of ignorance. "We trust," says the Reviewer, "the future martyrdom of man will not consist in having to read through many works like the present."

All those I have mentioned point to the conclusion that the first man and woman were descended from some lower form of animal, through insensible and indefinite gradations, going back to a first living monad. "But, for the supposed first monad," well says Dr. Melia, "the origin of the long series of vertebrata (from which, in the hypothesis illustrated by Dr. Darwin, were all supposed to come forth at last) must have had its origin from some other efficient cause extraneous to the series of the said transformations. This efficient cause, if it be supposed to be derived from some other previous being or beings, must lead us at last to a first cause or efficient principle, *out of* the series, and independent of it, in order to avoid the absurdity of admitting that there are effects without their cause."

Mr. Herbert Spencer, author of, among many other books, a work which sets forth the general truths of biology, as illustrative of, and as interpreted by the laws of evolution, and author of the newest, and, therefore, the best philosophy, (I am wrong, there are other newer, *ergo*, better ones,) endeavors to make us familiar with the origin of serial, lateral, and vertical homologies, (I have some difficulty in following Mr. Spencer, and in not getting away from myself,) and with regard to organic nature proclaims the principle that the present state of any body is the immediate result of all the forces that have ever acted upon it, directly or indirectly, and that it therefore contains within itself "all the essentials of its history." Mr. Spencer extends this to the *moral* world, where, he claims, for every immoral act, word or thought, each man, during this life, receives minute and *exact*, (the wonder is he did not say *sufficient*,) retribution.* "If the bad were so heavily handicapped," says the able Reviewer "the morality of the human race could never have made a progress so very halting and interrupted." Mr. Spencer holds that "animals have a mental as well as a physical development, and that there is also a progress of knowledge, of religion, of the arts and sciences, of institutions, manners, governments and civilization itself," and that the laws of evolution account for this progress. Yet, no well-informed person can be ignorant of the fact, that the arts have, during the last 3000 years been making spasmodic efforts to be what they once were; that modern institutions of learning do *not* surpass those of Athens or of Alexandria; that our modern manners are *not* more polite or refined than those of the ancient Greeks; (Mr. Lecky says that the intellectual superiority of modern times is purchased by the sacrifice of something of dignity and elevation of human character. So says Mr. Lecky, one of the most recent, *ergo* one of the best authorities;) that governments are claimed to be good only by those who support them, and very bad by those opposed to them; that in our progress toward civilization, to quote Mr. Lecky again "it is impossible to deny that we have lost something,* while, in religion, some are so bold as to believe, however it may be perceptible otherwise to Mr. Spencer, there is no law of evolution *visibly*, advancing and developing the divine laws made known through a Moses, thousands of years ago; or, at a later period, through a Christ.

Mr. Ruskin, in his "Queen of the Air," say (of course this is from his own point of view): "We ourselves, fretted here in our narrow days, know less, perhaps, in very deed, than the ancient heathen, what manner of spirit we are of, or what manner of spirit we ignorantly worship." And this with a full knowledge, no doubt, of the doctrine of evolution.

This law of evolution, as presented to us, is not limited to the physical history of plants or of animals. Oh, no! It carries us through the crystalline and non-crystalline rocks to the very nucleus of this earth—for geologists tell us the earth has had its career of evolution. If, in old dusky time, the mastodon gamboled and the ichthyosaurus and the plesiosaurus disported themselves, they knew not why, it was by virtue of a law which remained to be discovered several thousand years after they had given place to flora of sweeter odour, and to fauna of more graceful form. And if man appeared upon the scene at all, and it is generally admitted that he did, at some time or another—although the date is not accurately settled—it was by virtue of the same law

* Mr. Lecky says, "There are men whose whole lives are spent in willing one thing and desiring the opposite. In such cases as these virtue clearly involves a sacrifice of happiness; for the suffering caused by resisting natural tendencies is much greater than would ensue from their moderate gratification.

* See European Morals, p. 155.

which evolved him, *remotely* from a colloid, *immediately* from an ourang-outang! But the law of evolution is too far reaching to be confined in its operations to this earth. It pervades the planetary system; and astronomers, says a writer, hold that the solar system has gone through the same process. It not only regulates the actions of forces and of matter, it controls development, waste, and repair. If everything was claimed to be *osmosis* by Darwin, and osmosis everything, one greater than Darwin—Herbert Spencer—may equally well say, and does say, evolution is everything, everything is evolution. And the latter has an advantage over the former in having his serried hosts of physiological units to support him.

If the law of evolution pervades and controls everything, it is also claimed to pervade that which gives *life* to every thing. It would appear as if that which was intended, by the Great Giver Himself, ever to remain occult, is that which, of late years, has been the most determinedly investigated. And with what result? The chemist, before he became familiar with the law of osmosis, might have sought for life in his crucible, and in his alembic; the physiologist, before he had heard of protoplasm and the law of evolution, might have hoped to find it at the end of his knife; and some fancied they had discovered its seat, if it had its seat anywhere. But, somehow or other, they were too slow in their manipulations, for life always managed, by a tour de passe passe, to slip away just before it could be reached. Explorers could not see it, but they saw where it had been—not the immaterial essence, but the material casing, fresh and warm and recently vacated, which, of course, was all the same thing! This is a digression.

But, as if the Great Giver of life had no right to conceal from us, who enjoy it, a knowledge of that principle, we must thrust aside the veil that conceals from us that vivifying influence, and life, or, at least all that we shall ever know of its essence, stands revealed; and here it is, dished up by advanced biologists, psychologists, evolutionists and philosophists. What is life? says Lewes: "A series of definite and successive changes, both of structure and composition, which take place within an individual without destroying its identity." Now this must appear very plain. "It is," says Richeraud, "a collection of phenomena which succeed each other during a limited time in an organized body." (That is equally plain.) "It is," says de Blainville, "the two-fold internal movement of composition and decomposition, at once general and continuous." (That quite equals in clearness either of the other two.) "Une harmonie entre l'être vivant et le milieu correspondent caracterise evidemment la condition fondamentale de la vie," says Comte. (Plain without being very plain.) Mr. Spencer, who rejects all other definitions, to have his own, perhaps, rejected in turn, says it is the co-ordination of actions, "and co-ordination is the specific character of vitality." But Mr. Spencer has modified his views; and his formula, as further amended, reads thus: "Life is a definite combination of heterogeneous changes both simultaneous and successive." If a philosopher has a right to *make* a formula, he has a right to amend it, and even this amended formula requires still further amendments, for Mr. Spencer admits; "This ultimate formula is, after all, but proximately correct." Probably; and he would have been quite correct if he had said with Foderé—"*life*?—the greatest, the most difficult question he can ask after that of God Himself." But ask the religious philosopher, learned or unlearned, who meditates on this life in its bearing to the life hereafter—ask the bird of the forest on the nest of its birth; the insect pursuing the object of its love; the little fish gamboling in the stream; or the greater ones ploughing the depths of the ocean; and from high in the heavens and from the depths of the earth, and from the waters under the earth, will come the answer, as plain as it can be made by a Huxley or a Spencer—it is the breath of God Himself.

Of course, this is old fashioned, and everything must be recent, everything must be new, even in science. Yes! everything must be new! and when we read, at the breakfast table, of great and important researches which have led to the promulgation of new theories, and the erection of new systems, we are cheered with a hope that our evening reading may make us acquainted with still newer theories, or newer systems; or, perhaps, bring back to us, unscathed, those we were as yet somewhat sorry to relinquish. A learned professor publishes "a series of important researches" which promise to throw much light on, let us say, the constitution and changes of organic matter; and upon this, new systems are created, which, to believe the men of systems, have a foundation in science which had been wanting in previous systems. When Professor Graham, some time ago, showed that solid substances exist under two forms of aggregation—the colloid (or jelly-like) and the crystalloid—what a bouleversement there was in camps scientific. And having discovered these conditions, and invented the names, he received

credit as if he had invented the things themselves. And when it was ascertained that the colloid is a dynamical state of matter, and the crystalloidal the statical condition, enthusiasm knew no bounds. Mr. Spencer sat down and re-wrote his first chapter on the Data of Biology, interweaving three very pretty sections. The laws of capillary, and of endosmotic, and of exosmotic action, which we had firmly believed in from our school days, received a rude shock at his hands. I don't know if they will survive it, and osmosis, the pet of student life, is degraded from its lofty position; and, from a first principle, becomes merely an ally to another power. (Rather hard this on osmosis!) The changes that must, or ought to take place in organic matter, and which must or ought to be explained, are still further accounted for by the addition of heat—(that heat which is no longer heat, but a raised state of molecular vibration,) and by light (which is no longer light, but "a certain class of ethereal undulations) transformed into "certain molecular re-arrangements, of an unstable kind." (It gets easier as we get on.) One might now expect a clear conception of the *way* in which the "raised state of molecular vibration" and those certain states of ethereal undulations (I may here remark the ethereal undulations still feel uncomfortable, as they are looked upon with considerable suspicion and distrust—but let us give them a shelter) would produce all the constantly varying phases of organic life; but, after exciting our hopes and fancies, we are thrust back, by Spencer, who almost *created* them, into our former ignorance; and instead of the elucidation of the phenomena, as we had expected, we are only made partially familiar with the phenomena themselves.*

The law of evolution carries us to the holiest and forbidden ground. "Though by the laws of thinking," says Spencer, "we are rigorously prevented from forming a *conception* of that incomprehensible Omnipotent power by which we are acted upon in all phenomena, yet we are, by the laws of thought, equally prevented from ridding ourselves of the consciousness of this power." But the new philosophy comes to our aid, and by the law of evolution we may see through the vast diversity of nature "a oneness of order and method, which necessitates but one philosophy of being, the same principles being found to regulate the course of celestial movement, terrestrial changes, and the phenomena of life, mind and society." "The one conception" he says "which reaches outward through boundless space, and back through illimitable time, resolving the deepest questions, *which predicts the glorious possibilities of the future* (the *Italics* are mine) and reveals the august method by which the Divine Power works evermore—this one, this all elucidative conception, is expressed by the term *evolution*." (Illustration ix). And thus, Gentlemen, we are made to travel by pleasant and easy stages from the protoplastic something—not yet in being—through multiplex gradations, to the Great Being Himself, who, we are still old-fashioned enough to believe, holds the whole world, and all it contains, philosophists and all, in the hollow of His hand; and while we are journeying, Spencer and Darwin, explaining—explaining everything, modifying everything—and rejecting everything that cannot be explained or modified. Given, now, the existence of anything in the long scale of being, and through successive gradations it is quickly connected with the colloidal mass on the one side, and with the *immensities*—to borrow a Carlyleism—on the other; thus making serious the Byronian paradox: nought is everything, and everything is nought. To what does all this tend? To reduce everything to the visible and material. Why, education, according to Mr. Huxley, is only "the instruction of the intellect in the law of nature;" no more. If man has a soul, which is only a hypothesis, our highest wisdom, says a pungent writer, since it can neither be felt, weighed or measured, is to take no notice of it. If people will have religion, as they will have measles, scarlatina, or small-pox, let it be, says the same writer, for the most part of the silent sort, at the altar of the unknown and unknowable—who will, no doubt, if he exists at all, be quite content with that limited amount of languid recognition." Science is progressive, gentlemen, but this is retrograde. We require not a Buddhist to tell us, for a *modern* philosopher tells us that "man will never be in a proper condition to make the best of this life, while his hopes and his thoughts are fixed upon one to come." Strauss, whose death was heralded a few months ago, says the idea of a future world is the last enemy which speculative criticism has to oppose, and, if possible, to overcome." So wrote the living Strauss. If we could but join the end of our existence to the beginning, or re-unite the two extremities of the circle of life, they would then

* The ethereal undulations and molecular vibrations in psychological science are now regarded by many as the *means* of conveying mental consciousness by "brain waves Si près de toi si loin pourtant;" but the consciousnes *itsely* is not wave.

go on a circuit in the same way as the perpetual revolution of the planets; and our life's winters would be followed without cessation, by new springs." But Strauss, like others, is dead—and, perhaps, judged, unless Spenser steps in and claims that he had already had during life "adequate punishment."

It is made a reproach now-a-days by certain scientists to divert attention from the "law of nature to unscientific questions about death and judgment—those "unintelligent disturbers of the public peace." This tendency of science so-called to invade a province where it has no right to enter, has received a passing rebuke from the learned President of the British Association in his inaugural address two years ago. Dr. Carpenter said :—"When science, passing beyond its limits, assumes to take the place of theology, and sets up its own conception of the order of nature as a sufficient account of its cause, it is invading a province of thought to which it has no claim, and not unreasonably provokes the hostility of those who ought to be its best friends.' I hope, gentlemen, it is not necessary to say that whatever may be thought of the doings of certain advanced scientists, we have, as physicians should have, a deep love of science, and especially of natural science—a love which our few occasional leisure moments do not enable us adequately to gratify. But while the study of the laws of nature is one of the most refreshing and one of the most invigorating, we do not claim for it, as Mr. Huxley does, that it suffices to form a rule of life, to satisfy the yearnings of the soul; or even to fully appease the hunger of a healthy intellect.*

Why do I introduce these extracts? To diminish the love of the study of natural science? No! Such an attempt would be a wicked one any where, and an useless and a most ungracious one beneath the ægis of a society especially devoted to the advancement of the most important department of science. The sciences generally, and especially the natural sciences, besides being essential to the proper study of our profession are of vast use in disciplining the mind; in improving the faculty of accurate observation, of the classification of facts, of the co-ordination of classes or groups, and of the management of topics in their various orders of importance in the mind.

This is not the period to take from, but rather to support the claims of all the sciences. Physical science and natural history have much advanced within the past few years, it is true—may they continue steadily to advance,—yet, according to Sir C. Lyell, for some reason or another, as far as regards the educational system in Great Britain, they have been deprived of the proper position which they once held. I stop to ask if the fault lies not, in some measure, with those who, assuming to teach science, endeavour to inculcate what is beyond their province to teach or to inculcate, perhaps to understand. Never should science have been tortured by a Spencer or a Tyndall into becoming a rule of faith or a guide in morals, especially when, according to the former, "every addition to its surface does but bring us into wider contact with surrounding nescience."

The nature of my subject has necessarily kept me, since the beginning of this address, on the threshold of theological science. I do not enter that domain, further than to follow, perhaps rashly, those who have rashly entered there. Should the material or natural permeate, or be permeated by, the immaterial or supernatural? A philosopher, if he be logical, must admit the latter; for one is limited by the accidents of its being, while the other is not. But there is no, there should be no, there can be no antagonism between religion and true science. What is science, but a higher development of *common* knowledge, "an organized mass of facts ever growing, and ever being more completely purified from errors;" while religion should every where be present as a weft running through the warp (Spence 20). But science cannot make belief, no more than religion can take cognizance of special scientific doctrines (First Principles, 23.) One is in the actual, the other in the spiritual order. (See p. 66 First Principles.)

If I have been severe on some of those gentlemen, whose names have occured in the course of my remarks, no strictures of mine are to be supposed to extend of their characters, for while differing with Mr. Lecky in much that he has written, I may agree with him in this: "It is both possible and very common for the reasoning to be very defective, without any corresponding imperfection in the disposition of the man," unless, indeed, the tendency be immoral. But what has that to do, may be asked, with us, physicians, whose consciences may or may not have been formed

* Mr. Spencer, in his Essay on Physical, Moral, and Intellectual Education says that the key to history is to be found *only* in Science, and that, without an acquaintance with the general truths of Biology and Psychology, rational interpretation of social phenomena is impossible? p 70. While on the other hand the *Pall Mall Gazette* which has cropped up into an authority on *doubtful* questions, says :—The teachings of natural science even if they were carried out on a really satisfactory system, can never fill the place of letters."

during the course of professional study or practice; and in whom the moral sentiments do not flow from but long precede, all ethical systems, as claimed by Mr. Lecky? Everything; for never was materialism more general in the ranks of the profession, introduced by scientists on its outskirts than at present. Beginning in Germany, at the bidding of a French infidel, it has spread over that country, and back to that which gave him birth; and now it is more openly proclaimed in France than ever it was since the time of Broussais. But a few months ago, a teacher of clinics at the Hotel Dieu in Paris, when treating a painful malady, which gave no hope of relief, said to the students, in presence of the patient, (I quote from "La Revue Canadienne"):

"Dans ces conditions, la vie devient insupportable, et on ne peut qu'en souhaiter la fin. Neanmoins, nous ne pouvons pas, nous, médecins, travailler a l'abréger, ce n'est pas notre role, mais la malade, c'est différent, et, quoiqu'en puisse dire la lithurgie (sic) je soutiens qu'il a *le droit de ce tuer*!"

Can it be wondered that many of the enthusiastic among his youthful auditors should respond, with the cry of "vive le materialisme." That it is the belief of many in the profession in England, that the functions of life—sensation, thought; or the disturbance of those functions—disease and death—arise out of the modifications of matter, may be gathered from what has, from time to time, appeared in the periodical press of that country. It has been asserted by advanced scientists, more than once, that "prayer is never heard!"

O star-eyed science! hast thou wandered *there*
To waft us home the message of despair?

They are prepared, moreover, to furnish statistics in support of that doctrine! Some of the brightest luminaries in our profession have seriously recommended the separation of the patients in the wards of the several metropolitan hospitals, so that certain wards should be the counterparts of the others, quo ad the nature and gravity of the disease, and quo ad the treatment; and that one set of cases should have the advantages of prayer, while the other half should be deprived of all spiritual assistance. Of course Mr. Huxley would superintend the operations, and with some subtle meter, yet to be discovered, measure the force, the zeal, the earnestness, the amount and quality of the supplications; while Mr. Tyndall would be actively engaged in preventing even the faintest aspiration from ascending in favor of the prayerless set and with some antidote "cleanse the bosom of that perilous stuff;" (why not—a la Tyndall—call it prayer germs?) which would interfere with *his* calculations.

This disposition to evolve matter, life, being, God Himself, out of nonentity, (though Bently quaintly taught that "nothing cannot bring its no self out of nonentity into something")—and to regard the Creator, as John Stuart Mill does, as of "limited power, and perhaps limited intelligence also," has not extended—and may it never extend—to this beautiful land of lake and forest. We have not yet permitted the archplagiarist, Tyndall—a respectable authority, I grant, on heat, and light, and water, and, perhaps, on "germinating disease seeds"—to guide us into regions beyon l the ken of even his own intellect, stupendous as he conceives it to be; nor a Stuart Mill to rob us of a warm living *belief* "with regard to the government of the universe by a Divine Being," and substitute for it a cold, faint, languid *hope*—unless it be a hope founded on belief, that

"*Eternal* Hope! when yonder spheres sublime
Pealed their first notes to sound the march of Time,
Thy joyous youth began—but not to fade.—
When all the sister planets have decayed;
When rapt in fire the realms of ether glow
And heaven's last thunder shakes the world below;
Thou undismayed shalt o'er the ruins smile,
And light thy torch at natures funeral pile!"

Gentlemen.—I have been unconsciously betrayed into addressing you at greater length than I intended, and in vacating the presidential chair which, with my successor, will not be a vacuum, I thank you most sincerely for your kind partiality in elevating me to the honorable position of presiding over so learned and respectable a body, and for the uniform courtesy exhibited towards me. And I fervently hope you, Gentlemen, members of the Medico Chirurgical Society of Montreal, will long continue in your career of usefulness.

The late Dr. Fletcher was preaching an evening sermon to a crowded audience in Edinburgh, when a note was handed up to him to intimate that if Dr. So-and-so was in church he was urgently wanted. Having read the note, and seeing the doctor move off he immediately added, with great fervor, "And may the Lord have mercy on his patient."

Report of a case of arrested development and deformity. By J. T. WEBB, M.D., Montreal.

On the 25th of March I was sent for to confine Mrs. H., in labor with her 12th child. Not being at home at the time, I did not reach my patient's house until two hours after, and then found Dr. Finnie in attendance. Labour was just completed, and there had been slight difficulty in removing the placenta, owing to irregular contractions: beyond this there was nothing peculiar. The child was a female, and appeared strong and healthy. On examination, there was observed to be a tumor about the size of half an orange, very red in color, and situated at the lower part of the abdomen. This proved to be the bladder, wanting in its anterior wall and showing very distinctly the opening of the ureters. The whole forming that condition known as epispadios. The protrusion diminished in size for some days, but the slightest pressure would induce straining and evacuation of the bowels. At first, the mucous membrane of the bladder was very red and tender, with spots of ulceration; but, owing to the eversion, it became dry, and at the end of the fifth week had the appearance of skin. The right knee was normal, the motion being reversed so that the leg could be flexed forward but not backward, so that it resembled an elbow joint.

On the back was a spina bifida, situated between the eighth dorsal and third lumbar vertebra, being about two and a half inches in diameter. The tumor was soft, with a depression in its summit, in the centre of which was a small orifice, through which the spinal fluid oozed out. The slightest pressure on this caused twitching of the muscles of the lower extremity, and made the child cry. About the sixth week the child had an attack of bronchitis; a week after, convulsions set in, these continued until the end of the eighth week, when death relieved it of its sufferings.

Post mortem.—Bladder.—There is entire absence of the anterior wall of the bladder and upper part of the urethra; the vulva gapes widely, but the parts below the urethra were normal. The posterior wall of bladder protrudes from pressure of intestines behind, and its surface is raw from friction of the clothes. The pubic bones are undeveloped.

Knee Joint.—Bones normal. Anterior crucial ligament shortened so as to prevent flexion backwards. The ligamentum posticum lengthened and allows of undue extension. The condition appears to be due to a malposition of the leg in utero, causing it to be bent forward.

Spinal column.—The tumor projects nearly an inch from the back. On dissection, the opening in its centre is found continuous with the spinal canal. The deformity commenced with the eighth dorsal vertebra, the body of which is expanded latterly and its spinous process rudimentary. Passing downwards the bodies of the lumbar vertebra are twice their natural size, and the spinal canal twice its natural width. The lamina and spinous process of the first and second lumbar vertebra are wanting, and an opening exists surrounded by a fibrous ring, which is derived from the dura mater of the cord. The spinous process of the third and fourth lumbar is also wanting, and the space left between the ends of the laminæ are closed by a strong membrane. In the spinal canal there projects backwards from the body of the third lumbar a strong bony process, which is connected with the fibrous covering between the lamina; this divides the canal, which is very broad at this part, into two equal portions. At this point the spinal cord is divided into two parts, which pass on either side of the projection and becomes again united below. The nerves pass off in the usual way, through the intervertebral foramina and do not show any abnormal displacement, not being implicated in the sac. At the point of division of the cord above the projection there is a small body resembling in color and section the pineal gland of the brain. No signs of inflammation of the cord are observed.

617 Craig Street,
December 1874.

Correspondence.

To the Editor of the Medical Record.

SIR,—May I trouble you with the following, taken from an editorial in the *Canada Medical Journal* for May, 1870:

"The druggists and apothecaries of this part of the Dominion are as a class reliable, trustworthy, and thoroughly conversant with their profession."

I believe the Editor of the *Record* was then editor of the *Canada Medical Journal*. Can it be possible that the druggists of Montreal have deteriorated so rapidly, as to merit the severe things written against them in the October number of the *Record*?

Very truly yours,
HENRY R GRAY.

Montreal, Dec. 12 1874.

The Editor of the *Medical Record* was co-editor of the *Canada Medical Journal* in 1870, and, although not the writer of the article from which the extract is taken, he fully and cordially endorses every word of it. There are exceptions, however, to all rules, and, although the Editor of the *Record*, knows well the high standing of the great body of the chemists and druggists of Montreal, he has to admit that they are not free from black sheep. He, however, sincerely hopes that this session of Parliament will not pass without their being incorporated, and thus enable them to deal with those who transgress. The article in the October number of the *Record* was not written by the Editor, who was then in Europe.—*Ed. Record.*

Progress of Medical Science.

VACCINATION;—THE COMPARATIVE MERITS OF LYMPH AND THE DRY CRUST.

(By John Morrice, M.D., Baltimore.)

As the public journals announce a new outbreak of small-pox in the city of New York, and as its appearance there is generally a fore-runner of an epidemic throughout the country, it would be well to consider all the causes that lead to its development and the best means to prevent its dissemination.

Our experience of small-pox epidemics is that the German and Irish, vaccinated in the European mode, are principally the sufferers, and though there is a great deal of careless vaccination practised in the United States, we suffer greatly less than the people of Europe from invasions of small-pox.

The great difference that exists in the views and practise of the profession in this country and Europe in regard to the proper plan of vaccination has not heretofore been a subject of investigation, nor has it excited the interest which, in our judgment, it justly merits. It is time that this matter should receive the attention of the profession; and our European brethren, in view of the dreadful epidemic which has for the past three or four years ravaged the continent, would do well to make it a subject of inquiry, and see if there be not some defects in their present system of vaccination which may be remedied.

At the outset, it may be premised as a fixed fact that a true vaccination is a certain preventive of variola, and that an outbreak of small-pox can only spring from defective or imperfect vaccination. No medical man of education and experience doubts this proposition. This being admitted, it becomes our duty to see that the fullest extent of protection is secured to the community by the employment of the best and surest means of vaccination.

There are three forms of vaccination at present employed: first, animal vaccination; that is, with virus taken directly from the heifer. Second, human vaccination, as practised in Europe, in the form of fresh lymph taken from the vaccine vesicle, at an early stage of its development. Third, human vaccination, as practised in the United States; that is with virus taken from the dry pustule or crust.

As it is our purpose in this paper to discuss only the question of vaccination by liquid lymph and the dry crust, we shall say nothing in regard to animal vaccination. The thorough examination of its merits and demerits, brought about by the late epidemic of small-pox in Europe, has given every one an opportunity of judging of its efficacy or usefulness, (we may, however, remark, *en passant*, that in this country it has gained no new adherents). The two forms of human vaccination, then, are only to be compared and discussed. Our own experience favors the employment of the dry crust, as practised in the United States, for reasons to be adduced.

It is not generally known that there is a very marked difference in the character of the disease produced by the two forms of vaccination, so marked as at once to enforce the most earnest enquiry. The stages of the vaccination are entirely different in the two modes, and the growth of the vesicle and the period of maturation are entirely dissimilar. In vaccination with liquid lymph, the vesicle begins to form on the third or fourth day, and the areola on the fifth or sixth day; in vaccination with the crust the vesicle does not commence to form before the seventh or eighth day, and the only evidence to be discovered before that time of the virus having taken is a few small inflammatory points, which make their appearance about the fifth, sixth or seventh day. (The later these points begin to show, the better and more effective is the vaccination). A careful observation of two vesicles produced by the two methods of innoculation will demonstrate that the pustule produced from the dry crust possesses different elements of action, and yields different physiological results, In vaccination with the dry crust, the vesicle does not begin to form, as already stated, before the seventh or eighth day, when constitutional symptoms first become manifest. These symptoms are more general and better marked, though the local irritation is not greater than in vaccination by lymph. The true characteristic areolar test is always to be discovered when the crust is used, but in the case of lymph, particularly when it is taken from the arm at a very early stage, it is not always to be found, a starved, over-inflamed vesicle taking its place. The maturation, too, of the vesicle is different. In vaccination by lymph, the pustule desicates and falls off about the fourteenth or fifteenth day, or earlier; whereas with the crust this does not usually take place before the twentieth or twenty-first day, and then frequently the crust has to be removed by the operator. The cicatrix, too, is different in the two forms, and this is important, for its distinctive marks are always held as a guide to and test of a true vaccination. When the crust is used, we have a deep, cup-like, foveated, indented cicatrix; when lymph is employed, the indentation is superficial, and the other test marks frequently wanting.

Having thus stated the difference observable in

the two forms of vaccination, we now proceed to give the reasons for our preference for the dry crust.

1. In vaccination with the crust, particularly if done by scarification, failures are infrequent' indeed exceptional; whereas with lymph they are exceedingly common, as any one who has read the English medical journals for the past five years cannot have failed to discover.

2. Lymph virus deteriorates more readily and is not so easily kept as the crust. Dry lymph, when used from tubes or points, almost invariably fails. There can be no doubt about the deterioration of lymph. Dr. Short, the Superintendent of the Madras Presidency, in an article in the "Madras Journal of Medical Science," says that this fact is evidenced by the more rapid course of the vesicles and the occurrence of extensive local irritation.

3. Lymph taken from the arm at an early stage of the vaccine disease, before fever has set in or constitutional symptoms have fully manifested themselves, does not contain those morbific elements necessary to protect the system from variola; whereas in the dry crust these elements are found in an active and concentrated from. If this view be correct, it affords an explanation of the European system of vaccination. In England they take lymph from the arm before the areola commences to form, indeed frequently as early as the fourth or fifth day. Doctor De Hoval, in a communication to the "Lancet," says the earlier the period the better: and in the instructions published by the Lords of Her Majesty's Privy Council for the guidance of the profession, we find the following clauses: "7. Take lymph on the day week after vaccination, at the stage when the vesicles are fully formed and plump; but when there is no perceptable commencement of areola." Clause "8. Consider that your lymph ought to be changed, if your cases, at the usual time of inspection on the day week after vaccination, have not, as a rule, their vesicles entirely free from areola." Here then the old-fashioned, much-prized areola test, to which Jenner himself attached so much importance, is not only ignored but condemned, and a vesicle selected concerning the character of which there can be no certainty. In Paris, the employment of lymph furnished by M. Lanoix, during the late epidemic, proved almost an absolute failure, and even pure animal lymph was unsuccessful in twelve of thirteen cases vaccinated by Doctor C. Paul, at Hospital Beaujou.

4. Sequelæ of an unpleasant character frequently follow lymph vaccination; whereas with the crust they are exceptional. In three thousand cases of vaccination by the crust in our own practise, only one single case of local irritation of an unpleasant character occurred. This point is not sufficiently regarded. Evidences of an unhealthy condition of the vaccinefer's system can be readily detected by a careful examination of the growth and maturation of the pustule; but where lymph is taken from the arm at an early day, no such evidences can possibly be diagnosed.

5. Vaccination by lymph does not protect the patient, but necessitates a re vaccination; whereas a true vaccination by the crust affo ds thorough protection. In a late number of the "the editor says, that re-vaccination is urgently necessary; and Mr. Marson reports that in 751 cases admitted to the small-pox hospital, 618 or 82 per cent. were in vaccinated persons. We are convinced that no such result could follow in this country. A genuine vaccination here, in our judgment, affords as much protection as variola itself.

The reasons that have been urged against the employment of the crust are very trivial. The theory that blood may be taken up and constitutional diseases propagated by its use, as suggested by Doctor Anstie, is entirely groundless, as is also his view in regard to the danger of pus.

Doctor Blane's arguments in favor of animal vaccination and the reasons he urges for the use of lymph from the heifer, in preference to human lymph, do not apply to the crust. None of the evils he attributes to human vaccination are to be found in the American mode; but as animal vaccination itself has been in some degree a failure, and has, at times, some unpleasant consequences attendant upon its use, we cannot accept it in lieu of the crust, which has proved so generally serviceable in this country. It may possess advantages over human lymph, but the crust is superior to both.

The history of the late epidemic of small-pox in Baltimore confirms the truth of these views. * *

One word in conclusion, in regard to the number of punctures or vesicles necessary to protect the patient. In Europe, as we have already seen, three or four are usually made, but with us, one is found to be sufficient. From it we get all the constitutional effect necessary without any undue local irritation. Jenner and his followers made but one puncture, and we are content to abide by the decision and practise of the early fathers.—*Toronto Sanitary Journal.*

EXTRACTION OF A WATERLOO BULLET WHICH HAD REMAINED IMBEDDED IN THE PALM OF THE HAND FOR UPWARDS OF FIFTY-NINE YEARS.

By Henry Harland, M.D., Wadhurst, Sussex.

James Jenner, aged 83, fought at Waterloo, on June 18th, 1815, in the 44th Foot. In the thickest of the action, near Quatre Bras, whilst he was discharging his musket, a French bullet struck his forefinger. It passed through the proximal phalanx to the barrel of his musket, which it indented, and thence through the fleshy part of the ball of the thumb, down to the trapezium, against the palmar surface of which it became imbedded, and which probably arrested its further progress. Jenner immediately sought surgical aid; the wound was probed several times, but, as the bullet could not be detected, no attempt at extraction was made; he was never afterwards fit for duty. The wound remained open two years, and then healed, leaving so much induration in the palm as to render it very difficult for him to grasp his agricultural tools, and quite impossible to close the hand.

I first became acquainted with the patient twenty-five years ago. He has constantly worked as a gardener or agricultural labourer since his discharge from the army in 1816, excepting at those times when the hand has been unsually painful. About forty years ago, he was laid up three months, in consequence of irritation and lymphatic inflammation, induced by the bullet, and was frequently at other times incapacitated for several days at a time. About three months ago, when working on very hard ground, the hand became painful and swollen. An abscess formed and opened on the dorsal surface of the hand, midway between the metacarpo-phalangeal joints of the thumb and forefinger. I passed down a probe, and felt the bullet distinctly in the situation before-mentioned. After enlarging the opening sufficiently, I had very little difficulty in dislodging and extracting the bullet with the scoop. It was blackened, and slightly flattened on one side, probably from its first striking the barrel of the musket. The patient told me that the English at that time used the ounce and spherical bullets, but that the French bullets were smaller. This weighed six drachms and five grains. The wound is rapidly healing; but considerable time must elapse before it is completely closed, in consequence of the depth of the sinus, which is kept open by being filled with lint, soaked in dilute carbolic acid.

The interest of the case consists in the fact of a leaden bullet remaining deeply imbedded upwards of fifty-nine years without producing more inconvenience. I thing it highly probable that, during the patient's work on very hard ground, the bullet may have become dislodged from its long resting place, either by concussion of the tool against the ground, or by some pressure directly applied to the palm, and that the abscess resulted from its sudden and probably violent displacement.—*British Medical Journal.*

GENERAL REMARKS ON THE INTERNAL ADMINISTRATION OF FREE PHOSPHORUS.

By J. Ashburton Thompson, L.R.C.P.

The author commenced with some literary and clinical prefatory remarks, giving the grounds on which his observations were founded. The former resulted from a persual of nearly every note published on the subject during two hundred years, the latter from the administration of phosphorus in every kind of formula to many hundred individuals during the last nineteen months. The following propositions were submitted for discussion. The action of phosphorus varies strictly according to the form and dose in which it is given, thus, a stimulant, a tonic, or a poisonous action may be elicited at will. The stimulant power may be enhanced by an adjuvant. The choice of adjuvants is limited, the best being ether. The dose to be given for this purpose must not fall below one-twelfth of a grain, nor be repeated at any definite interval; but the quantity may be advanced to one-eighth of a grain, and is to be repeated as the occasion demands. The objects for which it is proper to employ phosphorus as a stimulant were described as being: preparation for unusual mental or bodily exertion; relief from the effects of such exertions, as a remedy for the typhoid state, especially in the specific fevers. From the use of a stimulant dose in calling forth the rash in the exanthemata, and its diaphoretic powers, an analogy was drawn between the power of a stimulant dose of phosphorus and a violent purgative (croton-oil) to remove an uncomplicated acute attack of trifacial neuralgia occurring in an otherwise healthy subject. The formulæ appropriate to the kind of stimulation desired in special cases were referred to and exhibited. The tonic power of phosphorus was considered. The mode of administration and the dose to be given for this purpose were described. The dose was fixed at one-hundredth to one-twenty-fifth of a grain. The dose must be carefully regulated within the prescribed limits, since phosphorus is appropriate as a tonic in cases in which its stimulant action would be disastrous. The special powers of phosphorus as a tonic were described as being: to renovate exhausted nerve-function; and to reconstruct altered nerve matter. The facts from which these powers were inferred were detailed. The approdisiac power of phosphorus was not evinced under ordinary circumstances, but only if either the patient's sexual power were in abeyance, or if the dose given was excessive. Sexual excitement was therefore one of the signs, if not of poisoning, at least that the dose in use was excessive.—*British Medical Journal.*

THE TREATMENT OF CORNS AND BUNIONS.

In a lecture reported in the *Medical Press and Circular*, Mr. Ormsby, F.R.C.S., said on this subject:—

The treatment of these two affections agrees very much in at once removing the tight boots and undue pressure, and soft pliable leather shoes recommended, applying simple cold-water dressings to the painful bunion; in the inflammatory stage, if suppuration occurs in its cavity, it should be cut into by early incision. To prevent undue pressure various methods have been suggested from time to time; a round piece of leather or condensed piece of wool having an adhesive side next the skin, and a round hole cut out of its centre to receive the corn or bunion, and this then applied round the periphery of the swelling; this, no doubt, is a very useful plan, but act, as it may do, most efficaciously for a time, it is only palliative, and does not effect a permanent cure. The topical application of nitrate of silver produces a hardened black portion of epidermis over its summit; this, after a time, gets detached, and you can peel it off, and when this is removed touch it again with the nitrate of silver, and so on until all traces of the callosity disappear. I have over and over again tried this plan, and it has seldom failed in my hands, but it must be persisted in. Chiropodists, a class of people who think themselves very

clever, profess to take a "corn out by the roots," a most unscientific observation, to say the least of it, and in reality all they do is, by a patient and gentle paring process, remove a great part of the thickened cuticle, and recommend a well-fitting boot, and simply by removing the cause often effects a cure. You must also bear in mind that a very loose boot is nearly as bad as a very tight one. Glacial acetic acid is also recommended to be applied after the callosity has been well softened by keeping the feet in warm water for a short time. When the callosity occurs in the sole of the foot and a circumscribed enlargement is seen, if directions are given to a bootmaker, he can make an allowance in the sole and form a slight depression, so as to prevent undue pressure to the foot; in fact, boots of any dimensions and shape can be made by an intelligent bootmaker to suit any deformity occurring in the toes or feet. Well-made boots prevent much annoyance and deformity, while badly-made and ill-adapted boots are a very frequent cause of deformity, corns, bunions, limping, etc. Another distortion often seen is what is called *Hammer-Toe;* it is caused generally by wearing boots of insufficient length, and the toes are bent up and considerably flexed to accommodate themselves to their cramped position; after a time the flexor tendons become permanently contracted, and the toes assume a form not unlike the appearance of a hammer, hence the name; the great, second, and last toes are most often affected.

Treatment.—To recommend longer boots, and allow the toes space to travel forward. Tenotomy of the contracted flexor tendons may be resorted to, and a spring-pad attached to a sole of leather or other light material, and the toes bent forcibly down and bandaged to this sole, which may have slits in it corresponding to the interdigital spaces, which facilitate the bandage passing between the toes and keep them permanently extended.

TREATMENT OF INVERTED TOE-NAILS.

BY DR. W. HUKILL,

Of West Liberty, Virginia.

Every practitioner, probably, is acquainted with this affection. Every one knows, also, that the various plans of treatment generally pursued are very unsatisfactory. The purpose of this article, however, is to recommend a mode of treatment that has been employed by the writer for about four years, which has been highly satisfactory. It is, simply, to apply the muriated tincture of iron to the nail and the surrounding ulcerated and granulated surface, once or twice a day, with a camel's hair pencil. As a general rule, to apply it once a day, at bed-time, will be sufficient. The ulcerated surface heals with astonishing rapidity, and the nail assumes its normal appearance, making a complete cure in most cases in a few weeks. Since I commenced using this remedy, I have done nothing else in such cases. Paring and cutting the corners of the nail usually does more harm than good. I need not attempt to speak of the modus operandi of the remedy, the object being, merely, to recommend a trial of it to others.—*Philadelphia Medical Reporter.*

DIET IN DYSPEPSIA.

In a lecture translated in the *London Medical Times and Gazette*, Prof. Leube discusses the best form of diet for dyspeptic patients, and insists on the maxim that "for a sick stomach there is no better diet than rest." However, it is not necessary to adopt such a maxim literally in most cases of dyspepsia, involving, as it does, the exclusive use of enemata; ordinarily, we may content ourselves by giving "easily digestible" food by the mouth. The relative digestibility of different foods has occupied the attention of many observers, without even yet being satisfactorily understood. We want still to know more of the relative share which is taken by the different parts of the alimentary canal in the process of digestion. It is not at all desirable that a dyspeptic patient should have food ordered for him which is only digestible by the stomach. Foods which by their consistence and form mechanically irritate it do not cause so much harm to it as foods on which the gastric juice can act easily, and which therefore remain long in it. Individual constitution and the nature of the particular disease must be also considered in deciding on forms of diet.

It is probable that young veal, chicken, pigeon, boiled fish, and underdone beef are the most suitable foods for most patients, of course, with the exception of milk and eggs, which are the most digestible of all. Meat should be underdressed, not only because it becomes tough by much cooking, but because Fick has recently shown that the same gastric juice digests cooked meat three times as slowly as raw. Eggs should be taken soft boiled, and not raw, for Leube has found by experiments on himself that their albumen is more easily digested when cooked than raw; and Fick has also shown that there is at any rate no advantage in the uncooked form over the cooked, so far as digestibility is concerned. Fat sauces must be abstained from, because they shield other food from the action of the gastric juice. The only vegetables which Leube allows are asparagus, young peas, and carrots, and mashed potatoes. Bread he gives stale. He usually forbids all alcoholic liquors.

UMBILICAL HERNIA IN INFANTS.

A "Country Doctor" writes to the London *Medical Times and Gazette*:—

Speediness in the care of the above, combined with simplicity in the means employed, is, I hold, the great desideratum. What more simple than

strips of plaster applied crosswise, or, as I have done during the last ten years, to apply a small pad of lint and one broad strip of adhesive plaster? No case has failed; no soreness have I ever seen, "so far as my memory serves me."

LARGE CALCULUS.

The following account of a calculus of gigantic magnitude is copied from the preface, by a Mr. Gouge, to an old book of sermons by the Rev. Nicholas Byfield, Isleworth, who lived in the time of Queen Elizabeth and James I. The book was published, after his death, by the editor, Mr. Gouge, to whom we are indebted for the details of this remarkable case, and is dated 1623.

"It appears that he carried a torturing stone in his bladder fifteen years together and upward. I have heard it credibly reported that, fifteen years before his death, he was by a skilfull chirurgion searched; and that, upon that search, there was a stone found to bee in his bladder; whereupon he used such meanes as were prescribed to him for his case, and found such help thereby, as he thought; that either the chirurgion which searcht him was deceived; or that the meanes which he used had dissolved the stone. But time which manifesteth all things, shewed, that neither his chirurgion was deceived, nor yet his stone dissolved; for, it continued to grow bigger and bigger, till at length it came to bee of an incredible greatness. After his death, hee was opened, and the stone taken out; and being weighed, found to be 33 *ounces and more in weight;* and in measure about the edge, *fifteen inches and a halfe;* about the length, *above* 13 *inches;* about the breadth, *almost thirteen inches;* it was of a solid substance; to look upon, like to a flint. There are many eie-witnesses besides who can iustifie the truth hearof. A wonderfull work of God it was, that he should be able to carry such a stone in his bladder, and withall to doo the things which he did."—J. M. Winn —*Brit. Med. Jour.*, April 11, '74.

HYPODERMIC INJECTION OF ERGOTIN IN VARICOCELE.

In a case of varicocele which had existed for a long time, Dr. Bertarelli, of Rome, injected a solution of ergotin under the skin of the scrotum. The solution consisted of ergotin, 1 gramme, water, with a little alcohol, 2 grammes. The patient was ordered to maintain absolute repose, and to make local application of cold compresses. The next day the varicosities had disappeared. The success was complete after another injection, which was attended by but slight local reaction.

Dr. Cittaglia had cured another case of varicocele by the same treatment. By the eighteenth day nearly all the varicosities had disappeared; and there was nothing but a slight induration of the corresponding tesical to be observed.—*Alm. di Terapie, Lo Sperimentale*, March, 1874.

CHLORHYDRATE OF TRIMETHYLAMIN IN RHEUMATIC FEVER.

A new successful instance of the above has been communicated to the Therapeutical Society of Paris, by Dr. Martineau. When called to the patient he found that the elbow had, since the morning, become red, enlarged, and painful; skin hot; pulse 90. Ten grains of the drug were administered. The next day a great improvement was noted. The pain in the elbow had entirely disappeared, and the pulse had fallen from 90 to 65. No crisis or cardiac complication had occurred. The same treatment had been equally successful in a similar attack a year previously.

THE "ESCAPE-BOX."

It is stated in the reports of the different prisons of Paris that five or six thieves die annually in jail from the effects of swallowing this box. It is of polished steel, about three inches long, and contains turnscrews, hammers, silk thread, and every implement necessary for escape. The box is easily swallowed, but sometimes refuses to glide along the intestinal canal as expected, and often causes death. When, however, it does reappear, the thief is in possession of implements with which he can saw through the thickest bars.

Philadelphia Medical Reporter.

TREATMENT OF HEADACHE.

Dr. Lauder Brunton, in a paper On the Action of Purgative Medicines," recently published in the *Practitioner*, writes: "The administration of a brisk purgative, or small doses of Epsom salts, thrice a day, is a most effectual remedy for frontial headache when combined with constipation; but if the bowels be regular, the morbid processes on which it depends seem to be checked, and the headache removed even more effectually, by nitro-hydrochloric acid or by alkalies, given before meals. If the headache be immediately above the eyebrows, the acid is best; but if it be a little higher up, just where the hair begins, the alkalies appear to me to be the more effectual. At the same time that the headache is removed, the feelings of sleepiness and weariness, which frequently lead the patients to complain that they rise up more tired than they lie down, generally disappear." *Boston Journal of Chemistry.*

Warts upon the Margin of the Lid.—Although warts upon the margin of the lid may, in most cases, exist for years without giving any annoyance, yet two cases have lately occurred within a short period in Prof. V. Arlt's private practice, in which a wart that had rapidly grown upon the free margin of the lid, gave rise to an acute catarrh of the conjunctiva, without any direct mechanical irritation of the membrane. Prof. V. Arlt smiled at the suggestion of the patient, that the wart might be the cause of the conjunc-

tivitis. Only after a lengthened treatment with various applications had proved fruitless, did he determine to snip off the wart, when, to his astonishment, he saw the conjunctivitis disappear in a few days. In the second case, which had been under treatment elsewhere for conjunctival catarrh without benefit, he proceeded at once to remove the wart, and obtained a rapid cure of the inflammation. To Arlt this experience was new, and it may be that the observation will be of use to other practitioners.—*Irish Hosp. Gaz.*, July 1, 1874.

JABORANDI, A NEW MEDECINE.

A new medecine—with marvellous virtues, according to its sponsors—has been introduced and experimented with at the Hospital Beaujon, Paris. An account of the action and characters of the medicine appears in the "Répertoire de Pharmacie" of March 25, from which we condense the following particulars:—Dr. S. Continho, of Pernambuco, who claims to have discovered the properties of the plant, induced Prof. Gubler to make a trial of it, and the account given by that eminent physician corresponds exactly with the claims put forth by Dr. Continho

The leaves and little twigs of the plant are broken up, and from four to six drams infused in a cupful of warm water. The infusion may be taken warm or cold, and in about ten minutes after administration the patient breaks out into a violent prespiration, which continues for four or five hours, and which is so thorough as to necessiate several changes of linen. At the same time a most abundant flow of saliva is promoted, so abundant, say M. Gubler, that speech is rendered almost impossible. He asserts that he has known patients eject *more than a livre* in less than two hours. Occasionally the medicine has induced diarrhœa. Its action is more rapid and more thorough if taken warm, and if the patient is well covered up in bed, but its effects are none the less certain under quite contrary conditions.—*Chemist and Druggist*, [Lond.], April 15, 1874.

HYDRASTIN IN GONORRHŒA.

As far as internal treatment is concerned, I merely give in the first stage a saline aperient, to be continued three times daily for four or five days, together with the following injection: hydrastin, one drachm; solution of morphia (Magendie's), two drachms; acacia mucilage to four onces: to be used three times daily. This I have employed when inflammation ran very high, without even the slightest ill effects, and have used it in every stage of gonorrhœa with the most beneficial results when every other treatment, both internally and locally, had failed, including red sandal oil. But there is one remark I wish to make regarding the use of injections which medical men generally forget, and that is, to tell their patients to micturate previous to its use. Unless this is done, injections in gonorrhœa are useless. Hydrastin is used very much in different part of the United States, and very successfully. My last patient was a farmer, who had had a gleety discharge for seventh months. His medical man had quite wearied him out with injections, etc., all to no purpose. I at once tried the hydrastin, and in two weeks he was quite well.—*Medical Times.*

TREATMENT OF CHRONIC NASAL CATARRH.

Dr. John W. Thrailkill describes an instrument devised by himself for making topical applications of powdered substances to the nasal passages. It consists of a bent glass tube connected by a rubber tube with a glass mouthpiece. The powder is put into the glass tube, which is inserted into the nose to the distance of half an inch or more; the patient then puts the mouth-piece into his mouth, and blows the powder with a quick, strong blast into the nose. This plan has many advantages: the medicament is not drawn back into the pharynx, as when it is snuffed in, and it is distributed much more equally through the nasal cavities. A powder consisting of one drachm of calomel to two drachms of sugar of milk has been found highly efficacious in chronic cases of nasal catarrh which had lasted for years and had resisted treatment by douches, washes, etc.—*The American Medical Journal*, August, 1874.

TRAUMATIC TETANUS—MORPHIA—RECOVERY.

Dr. R. D. Winsett reports the case of a cavalry officer, æt. 24, who received a wound in the glutei muscles, which was followed in six or seven days by marked tetanic symptoms, with spasms, complete trismus, and opisthotonos. He was ordered every three hours a pill containing one grain each of powdered camphor and assafœtida, and a half-grain each of extract of belladonna and sulphate of morphia. In addition, he was given a grain of sulphate of morphia every hour, with large quantities of gruel and milkpunch. He continued without much change for eight days, the same treatment being persevered in,—sixteen grains of morphia being given daily. At the end of that time he began to improve, and in a few weeks entirely recovered.—*The Nashvillle Journal of Medecine and Surgery*, August, 1874.

IODINE CAUSTIC.

This is prepared by Rieseberg by dissolving four grammes of iodine in eight grammes of glycerin. It is used in lupus by applying it once every other day, and covering the parts with gutta-percha. This treatment is continued for several weeks.—*Tennessee Pharmacal Gazette*, July, 1874.

THE ACTION OF PURGATIVE MEDICINES.

(*The Practitioner*, May and June, 1874.)

It is generally believed that most purgatives increase the number of the stools and render them more fluid in a double manner: first, by stimulating the intestine to increased peristaletic action, and, secondly, by inducing a discharge of fluid from its mucous surface. Some purgatives, like aloes, are supposed to act almost entirely, in the former way. others, like bitartrate of potassium, in the latter, while others again, like croton oil, are supposed at the same time to increase the flow of fluid and the peristalsis. Several eminent German authors are inclined to deny that there is any increased flow from the intestinal walls, but regard the quickened peristalsis as almost the only cause of purgation, believing that the liquide stools are produced by the contents of the intestine being hurried along and expelled per anum before there has been time for the absorption of their fluid constituents. Dr. T. Lauder Brunton has lately confirmed the results of Moreau and Vulpian, by repeating their experiments, showing the falsity of this latter theory. The abdomen of an animal being opened, four ligatures were tied tightly around the small intestine, a few inches apart from each other, so as to isolate three portions of intestine. A purgative medicine was then injected into the middle part, the intestine was returned into the abdomen, and the wound sewed up. A few hours afterwards the animal was killed, and on examination the middle portion of intestine, into which the purgative had been injected, was found full of fluid, while the portion on each side was comparatively or entirely empty. Dr. Brunton has shown in this way that croton oil, elaterin, gamboge, and sulphate of magnesium, all cause a copious secretion from the intestine.

Purgatives prove useful in many ways. They hurry the food out of the alimentary canal, and thus lessen the injurious effects of over-eating. By expelling irritating substances from the intestine, they arrest diarrhœa and remove headache and other pains caused either by the abdominable irritation or by the absorption of poisonous matters produced by imperfect digestion and decomposition of food. They relieve biliousness by removing bile, and are most efficient aids in the treatment of chronic poisoning by lead, mercury, or other metals. It is probable that pepsin and pancreatic ferment are absorbed from the intestine and circulate in the blood, where the latter assists in the production of animal heat. They are then secreted anew by the stomach and pancreas, and do their work again. Purgatives lessen their quantity as well as that of the bile; they may thus be useful in fevers, but they injure old and feeble persons, both by diminishing their calorific power and impairing their digestion. They relieve inflammation by lowering the blood-pressure and thus lessening the congestion; and they prove beneficial in dropsies, both by abstracting water from the blood and diminishing congestion in the kidneys.

GELSEMINUM IN FACIAL NEURALGIA.

(*The British Medical Journal*, May 2, 1874.)

Drs. Sawyer and Mackey highly recommend the employment of gelseminum for the purpose of relieving pain, especially in branches of the fifth nerve. The preparation used is a tincture made from two ounces of the coarsely powdered root macerated in a pint of rectified spirit; dose, five to twenty drops. The evidences of the physiological action of the drug are loss of sight, double vision, headache, and paralysis.

ELEGANT FERRUGINOUS PREPARATION.

(Prof. Goodell.)

The following offers simply the most elegant and efficient ferruginous preparation we know of: Take tincture of the chloride of iron three fluiddrachms, dilute phosphoric acid half a fluid ounce, syrup of lemons three fluidounces; mix. A whitish preparation, pleasant to the taste; to be exhibited in a dose of a dessert to a tablespoonful.

CARBOLIC INJECTION IN HYDROCELE.

Dr. Levis (*Philadelphia Medical Times*) says: The most popular method for the radical cure of hydrocele is the injection of stimulating fluids into the vaginal tunic, after the withdrawal of the serous effusion by the trocar. Of the various injecting fluids proposed tincture of iodine is most generally employed at the present day; but it often fails to produce the inflammation requisite for the obliteration of the sac, and occasionally induces too much inflammatory action. Dr. Levis prefers carbolic acid for the injecting material, and in a case which he describes, used one drachm of a mixture of equal parts of carbolic acid and glycerine.

The injection of carbolic acid seems, from other cases to which it has been applied, to fulfil the conditions most admirably, producing sufficient inflammatory action to secure adhesion of the walls of the sac, and giving little or no pain to the patient, either at the time of its introduction or subsequently. This freedom from pain is probably due to the local anæsthetic effect of the carbolic acid, for it is well known that, if this article be placed upon the skin, the surface can be scarified with a knife without pain.

TOOTHACHE.

Dr. Q. C. Smith praises the following most highly (*London Med. Record*): Take of carbolic acid saturated solution choral hydrate, saturated solution, paregoric, fluid extract of aconite, of each an ounce; of oil of peppermint half an ounce; saturate the pledget of cotton or a piece of sponge, and tightly pack in the cavity.

IMPORTANCE OF THE PURITY OF CHLORAL HYDRATE.

Dr. Oscar Liebreich has recently published a paper in the *Berliner Klinische Wochenschrift*, in which he calls attention to the important subject of the purity of chloral hydrate, and the effect which its deterioration may produce on the patient to whom it is administered, and on its reputation as a remedy. The case he says, is different from that of such a substance as quinia, the adulteration of which will only reduce, but not pervert, the proper action of the drug. With chloral and other substances prepared by analagous chemical processes, the result of the manufacture may be the formation of compounds which, if administered, produce an altogether different result from that intended. The process of manufacture is one which requires great care; and it seems that it is at least difficult to insure the purity of chloral if made in large quantities. Liebig himself, who discovered it, never attempted to make more than a few grammes at once; and Dr. Liebreich was so convinced, when he brought it into notice as a medicinal agent, that purity was necessary for success, that the first supplies were made under his immediate superintendence. At present it is manufactured in various places, and the result is that in some parts of the continent, notably in Saxony and Switzerland, it has fallen into disrepute. Dr. Liebreich has made a collection of specimens of the drug used in cases where it has failed to produce its proper action, and possesses, he says, some horrible chemical compounds which he would not venture to give to a human being. He prefers the crystallized form of chloral hydrate, as the most stable. It may contain hydrochloric acid: this is no disadvantage if the proportion remain the same; but if it increases it indicates that the formation of dangerous compounds may be going on. Sometimes the hypnotic action is increased: this he attributes to the production of chlorine compounds, which are more readily changed into chloroform than chloral itself is. An acid reaction arising from the formation of trichloracetic acid does not show that the chloral is unfit for use, though it weakens its action In pure chloral this action is limited, while impure chloral is liable to the constantly increasing production of acid compounds—not trichloracetic acid—of a deleterious nature. Dr. Liebreich remarks that the German Pharmacopœia is in error in fixing the boiling point of chloral hydrate at 95 °Cent. (203° F.). This, he says, is correct for anhydrous chloral, but the boiling point of chloral hydrate is not contant.—*Brit. Med. Jour.*, March 21, 1874.

DR. O'FLANAGAN, A MODEL ADVERTISEMENT.

An Eastern Journal, *not* of the regular school, contains a long advertisement of a celebrated physician, from which we take the following passages, commending them to "Dr. Aborn" and such like:

Have yeez pains in yer bones, or a botherin' ache
In yer jints afther dancin' a jig at a wake?
Have yeez caught a black eye from some louderin' whack?
Have yeez vertebral twists in the sphine av yer back?
Whin yer walkin' the strates are yees likely to fall?
Don't whisky sit well on yer shtomach at all?
Sure it's botherin' nonsense to sit down and wape,
Whin a bit av a powdher 'ill put yeez to slape;
Shtate yer symptoms, me darlins, and niveryeez doubt,
But as srue as a gun I can shtraighten yeez out.
Coom thin, ye poor craythurs, and don't yeez be scairt!
Have yeez batin' and lumberin' thumps at the hairt?
Wid ossification and acceleration,
Wid attenuation and regurgitation,
Wid amaciation and axacerbation,
Wid expectoration and wake cerculation,
Wid pracipitation and hapitazation,
Wid praoccupation and avaporation,
Wid hallycination and acrid sacration,
Wid black aruptation and putrification,
Wid great jactitation and cowagulation,
Wid quare titillation and cowld perspiration?
Be me sowl! but I'll bring yer woes to complation;
Onless yer in love—*thin* ye' re past all salvation.
—*Pacific Journal, July*, '74.

POWDERED MEAT.

Powdered meat is prepared by Dannecy, *pharmacien en chef* of the hospitals of Bordeaux, by finely chopping the fresh meat, spreading it upon muslin, and drying it rapidly in a current of air. A friable mass is formed, which readily yields a brown, nearly odorless powder, possessing a feeble saline taste, and of which one part represents five parts of fresh meat. It is used and readily taken by patients by adding a tea-spoonful to a cup of beaf-tea or soup, or by spreading upon bread. For children it is mixed in certain proportions with the ingredients for biscuits. —*American Practitioner.*

DEAR, BUT NOT GOOD.

The *Times*, of India, has a story how the Dewan of the Guicowar of Baroda, being ill, sent for a doctor, who desired the Dewan to send him next day a bottle of his urine for examination. The doctor used the Hindustani term *karoova* to express urine, and this term was not understood by the patient; but being desirous of obeying the doctor and sending him what he wanted, the D wan rummaged the whole town for *karoova*. At last a crafty fellow from Delhi offered to supply it, and sent a bottle, for which he charged fifty rupees. The Dewan tasted the liquid, and pronounced it not nice. However, next morning he sent the bottle to the doctor, saying that it had cost fifty rupees, and a great deal of trouble, and after all, was not nice! The doctor "smole a smile," and then explained the real meaning of *karoova* to the unhappy Dewan.—*London Med. Times and Gazette.*

THE CANADA MEDICAL RECORD

A Monthly Journal of Medicine and Surgery.

EDITOR:

FRANCIS W. CAMPBELL, M.A., M.D. L.R.C.P., LOND.

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MONTREAL, DECEMBER, 1874.

MONTREAL GENERAL HOSPITAL.

Three winters ago the attention of every Governor of the Montreal General Hospital was drawn to the somewhat singular fact that its out-door department was conducted in a manner unlike that of any other Hospital of similar or nearly similar size in any quarter of the world. The singularity consisted in the fact that this department, nominally under the attendance of its staff, was in reality solely looked after by its House Surgeon, who it must be admitted performed the work well, when the multiplicity of his other duties is taken into consideration. It was hoped that the attention of the Governors having being directed to it, and the desire that an out-door staff should be appointed to take charge of this section of Hospital work was so reasonable that it would be put in operation at once. And that it would have been we have no doubt, had the matter been left in the hands of the Governors. The Medical Staff, however, stepped in, and came to an understanding by which they agreed to perform the work themselves, as in years gone by. With the difference, however, instead as of old, attending to the out patients when their in-door work was accomplished, they agreed to attend another three months during the year, for the special purpose of out-door work. It needed not the wisdom of a Solomon to see at a glance that such an arrangement was not calculated to work well for any length of time. That it fell through in a very brief period we know to be a fact, and once more the duty was assigned to the House Surgeon. It was not a graceful act on the part of the Hospital Staff, in this manner to thwart so excellent an improvement, but we believe most firmly that their action did much to show the Governors the advantages which would follow the addition of an out-door staff. In May of the present year, notice of a motion to increase the staff was given by an active Governor of the Institution and a member of the Committee of Management, and by common consent it was understood that this motion should stand over till the autumn meeting of Governors. During the summer we have reason to known that overtures were made on the part of the Hospital Medical Staff to the introducer of this notice of motion, offering to recommend the appointment of four physicians, as Assistant Physicians, to have charge of the Out-door or Dispensary Department. This was to be done on condition he would accept it and not press his motion for an increase of (what was intended, although not definitely expressed) the in-door staff. The result of this was a conpromise on the part of the Governor, who accepted the terms offered him by the Medical Staff. This point having been reached, the staff selected four gentlemen, whom they decided to recommend to the Governors for the appointments. We have in a previous number of the *Record* expressed our very strong disapproval of a similar action on the part of the medical men connected with the General Hospital. We did so then, because we felt it was unfair that any body of medical men should constitute themselves a Board of Censors to judge between their professional brethren as to their capacityor claimfor Hospital appointments, and also because such conduct was we firmly believe, not calculated to *promote* that *entente cordiale*, which happily exists to a large extent among us We confess our inability to see any possible right which an Hospital Medical Board has to suggest, still less recommend who their colleagues shall be. We felt then that the Medical Board were continuing a practice for which in former times there, perhaps, might have been some excuse, but for which none existed now, and we warned them that the new blood that was being infused into the Institution would not always tolerate this interference. And the result has proved that we were right, for when the meeting of the Governors took place early in November, and it was decided, we believe we may say unanimously to nominate an out-door staff, the ticket recommended by the Medical Board was not carried in its entirety, an outsider so to speak, one who ran an independent ticket, polling the second largest number of votes. We look upon this vote as significant, and we trust that the lesson which it teaches will not be lost. Some considerable doubt seemed to exist whether an election could be held, and it was therefore decided to make it provisional, confirming it at the annual meeting in May next. In coming to this decision, we think the Governors committed an error. Many of the Governors were absent because strongly assured that the election could not take place, and some we understand even

left the meeting under a similar impression. Contests of every kind are sure for a time to leave behind some unpleasant recollections, but as far as is possible these should be reduced to a *minimum*, and this can only be done by all being assured that the battle has been fairly and honestly fought.

INSPECTOR OF ANATOMY.

By the daily papers we see it reported that the Hon. Mr. Ouimet has introduced a measure affecting the inspection of anatomy. What that measure is we are not fully informed, but understand that it is partly for the purpose of appointing the Coroner as Inspector. Some change is absolutely required, for, as the inspection stands at present, the law is completely a dead letter; and that in the face of recent enactments which are probably the most favorable existing in any country, so far as anatomists are concerned. The present Inspector deems it somewhat derogatory to his position to look after the distribution of unclaimed bodies, and therefore has taken no steps to have the law carried out as it should be. At the same time there is an apparent conflict of authority, for unclaimed bodies on which inquests have been held are buried at government expense, the Coroner not deeming the authority of the Inspector to extend over the bodies at his disposal. Many bodies are thus buried which assuredly ought to be supplied for dissection, as there are no friends to mourn their loss or whose feelings would be hurt by such disposal. On the other hand, as such material is absolutely required, graves are rifled to replace these, and when the discovery is made of a corpse having been stolen, the friends of the deceased have their feelings lacerated and are put into trouble thereby. In some cases unclaimed bodies are removed from our public institutions without the Inspector knowing anything of the matter; and, according as the officials of the institution are favorable to one college or another, so is the body disposed of. Even with the favour thus shown to certain colleges, a great scarcity of subjects exists in all, so that they are obliged to depend upon the efforts of students to maintain the supply. The medical schools necessarily then must pay a high rate for this material, and though they let the students have subjects at a reduced rate, and therefore lose much on the transaction, yet this sum is still too high to permit the student to practice on the dead those operations which he will sometimes be required to perform on the living. Even if he afford the required fees, the scarcity of subjects is such that hardly enough material is obtained to enable him to make the dissections which the law requires before graduation. Probably in no other city is there so much difficulty in obtaining subjects not because there are none, but because of the luke-warmness of the official who at present holds the appointment; for we feel assured that, if the existing law was carried out, there would be no reason to complain in the matter. We trust, therefore, that whoever is appointed he will be one who will do his duty faithfully and impartially, and we know of no one more competent to fill the post than our present Coroner. The facilities at his command are such that he is enabled to attend to this duty, and with a full knowledge of the necessities of medical schools, we have no doubt but that he would be able to furnish sufficient bodies for dissection, and thus do away with the present necessity of body-snatching. It is a matter which also concerns the public, for the greater the facilities offered to students, the better surgeons, will we have in our midst.

MORTALITY IN THE ASHANTEE WAR.

According to the *Medical Times and Gazette* the total number killed in battle during the Ashantee war was six—four officers and two men. Eleven others died from wounds received. Fifty-five were severely and one hundred and thirty severely wounded.

THE NEW YORK MEDICAL RECORD

We notice that our excellent contemporary, the *New York Medical Record*, is after the 1st of January to appear as a weekly. It has heretofore been issued bi-monthly. We heartily wish it increased prosperity. It is an excellent periodical—containing always much that is interesting and valuable to the profession.

MEDICAL FACULTY, VICTORIA COLLEGE, TORONTO.

We are sorry to notice the closing of the Medical School in Toronto, known as the Medical Faculty of Victoria College, Cobourg. The reason for this step, as given by the Toronto *Lancet*, is want of sympathy and assistance from the University. Having once commenced the session, we think the Faculty should have carried it to its termination, and not suddenly terminated the courses, even though equitable arrangements were made for its

students. Its respected Dean, Dr. Canniff, is an able teacher, and we regret his talents—at present, at all events—are lost to the cause of Canadian Medical education.

MONTREAL IN 1842.

A correspondent, signing himself D. G., publishes in the Montreal *Gazette* of the 28th of November, some interesting details with regard to Montreal in 1842. Among other items he gives a list of forty-one medical men, who were practising in Montreal in that year. Of this number, all but twelve or thirteen, have passed to their long home. Of those who are still living—we believe eight are still in the city, and all but one actively following their profession. The others are scattered, all but one we think being in Canada. Who would think that thirty-two years would so completely change the Medical aspect of our city.

A LECTURER aptly demonstrated the theory that heat generates motion, by pointing to a boy who had accidentally sat down on a piece of lighted punk.

OBITUARY.

Dr. Anderson, of Ormstown, Que., who died on the 11th Nov. after a somewhat lengthened illness, was a man of genial temperament and excellent professional attainments. He had for many years followed his profession in that section of the country and was esteemed and beloved by all who had the pleasure of knowing him well. He was progressive in his ideas and kept well up to the times in Medical literature. He was a subscriber to the *Canada Medical Journal*, during the eight years of its existence, and up to the day of his death took the two journals which were established on its discontinuance.

Dr. Francis E. Anstie, so widely and favorably known to the profession throughout the world for his masterly treatise on neuralgia and his other numerous contributions to medical science, died on Saturday, September 12, after an illness of only three days. His attack is said to have been produced by exposure to sewer-emanation while examining the sanitary defects of a school at Wandsworth. In him the British profession looses one of its brightest ornaments.

TO OUR SUBSCRIBERS.

Quite a number of our friends have neglected to forward their subscriptions for volume 2. *Would they kindly do so at once.*

OVARIOTOMY.

We learn from our Southern Exchanges that it is proposed to erect a memorial statue in honor of Ephraim McDowell, M.D., of Kentucky—the originator of ovarotomy.

MONTREAL GENERAL HOSPITAL OUT-DOOR STAFF.

The Governors of this Institution having decided to place its dispensary or out-door department, under the charge of a special staff—who should have all the privileges of the in-door staff—a provisional election took place early in November. The following medical gentlemen were elected, viz:—Dr. Gilbert P. Girdwood, Professor of Practical Chemistry, McGill University; Dr. George Wilkins, Professor of Pathology and Lecturer on Practical Physiology, Bishop's University; Dr. Thomas Simpson, and Dr. George W. Major.

We congratulate these gentleman on their appointment, and feel assured that the formation of this new department, which we have long urged will still further advance the usefulness of this noble charity.

SWALLOWING A TOOL-CHEST.

It is reported that in the different prisons of Paris there are five or six deaths every year from the effect of swallowing what is known as an "escape-box." This remarkable box is made for the special accommodation of prisoners. It is of polished steel, about three inches long, and contains turnscrews, hammers, silk thread, and other implements necessary for escape. The box appears to be easily swallowed, but sometimes fails to reappear as intended, and the death of the victim is the result. But, when it does pass the bowels, the lucky prisoner is prepared to cut the thickest iron bars and set himself at liberty.

ANÆSTHESIA DURING SLEEP.

Dr. W. R. Cluness reports in the *Pacific Medical and Surgical Journal* of June, 1874, two cases in which chloroform was administered and anæsthesia produced during sleep. One case was that of a girl of eight years, and the other a girl two and half years of age. In each case a surgical operation was performed. Neither of the patients offered the least resistance or showed any signs of consciousness in passing under the influence of the chloroform.

PERSONAL.

S. R. Ellison (M.D., McGill College, 1873) is in practice at St. Thomas, Ont.

Dr. Robert Costigan (M.D., Bishops College, 1874) has been appointed one of the Attending Physicians to the Indianopolis (Indiana, U. S.) Dispensary.

Dr. A. G. Fenwick, of Three Rivers—one of the Governors of the College of Physicians and Surgeons of Lower Canada, has removed to London, Ontario. He carries with him the good wishes of all with whom he has been associated, during a somewhat lengthened residence at Three Rivers. We believe Dr. Fenwick has been appointed Physician to the Hellmuth College in London, receiving a fair honorarium for his services—with the right of engaging in private practice. We wish our friend every possible success.

Dr. James McGarry (M.D. McGill College, 1858) of Drummondville, Ont., has been appointed Associate Coroner for the County of Welland.

Dr. Archibald McLay, of Bryanston, Ontario, has removed to Iona. Previous to his departure he was the recipient of a magnificent presentation watch, given to him by his friends, whose good wishes he carries with him to his new field of labor.

Drs. Lizars and Hiliary, of Toronto, have entered into a partnership as consulting and operative surgeons.

Dr. Harry Brown (M.D., McGill College, 1873) is in practice at Chicago, Illinois, and doing very well.

Dr. R. F. Godfrey (M.D., Bishop's College, 1873) has gone to England. He is in London, still further prosecuting his studies.

Dr. Henry Harkins (M.D., McGill, 1867) commenced practice in Guelph about two or three months ago, having entered into partnership with Dr. Clark of that place. Dr. H. served for a long time in the Allan Line of Steamships, being at one time the senior medical officer in the service. He was also attached for a short time to the Inman Line. We have no doubt that in his new sphere he will gain the same esteem and confidence which was shown towards him while following the sea.

Dr. Dougan (M.D., McGill, 1867) also served in the Allan Line for some time, afterwards in the African Mail Line for two voyages. Dr. D. has been practicing for about a year in St. Catharines, Ont., and we hear is doing very well.

Dr. William Marsden, of Quebec, has been elected President of the Society for the Prevention of Cruelty to Animals in that city.

REVIEWS.

Croup in its relations to Tracheotomy, by J. Solis Cohen, M.D., lecturer on diseases of the throat at the Jefferson Medical College. Philadelphia, Lindsay & Blakiston, 1874; Montreal, Dawson Brothers.

This monograph was read before the Philadelphia County Medical Society in January, 1874, and referred by them to the Medical Society of the State of Pennsylvania, and was by them ordered to be printed in their transactions. We have read it through with much interest, and consider it an able resumé of all that has been written on this very important subject. A large amount of statistical information is given, which is exceedingly valuable in the present feeling of the profession with regard to the propriety of this operation. In Montreal the results of tracheotomy have been very far from satisfactory, but elsewhere it has been different—the most successful operator of the present day being Dr. Buchanan of Glasgow. As the after treatment in cases of tracheotomy is of paramount importance, we copy the following:—

THE AFTER-TREATMENT OF THE DISEASE AND OF THE SURGICAL WOUND.

A great deal of the success to follow tracheotomy for croup will depend upon the after-treatment the case. It was a want of recognition of the importance of this fact, that rendered success so infrequent previous to 1850 or thereabouts. Great stress has been laid upon this point by all recent writers on the subject. The most valuable work I have seen in this connection is from the pen of Dr. Sanné, of Paris, based upon his year of service (1868) in the Hôpital Sainte-Eugénie, which afforded him many opportunities to operate, and to study the results of operations, and the subsequent course of the disease. During that year 102 cases of croup were received into the wards of M. Barthez, of which 83 were subjected to tracheotomy with a result of 18 recoveries. M. Barthez placed records of other cases at the service of the author, so that his volume is the result of an analysis of 662 cases of croup subjected to tracheotomy. Dr. Sanné has made good use of this material, and has discussed the subject of after-treatment, accidents, and complications with great detail and circumspection. Much that follows has been chiefly derived from his pages, which present partly much the same conclusions as are expressed by most authors; the similarity of argument, and often of language in many articles, indicating a common source, that of the great Parisian tracheotomists.

The operation being completed, and its immediate dangers over, the patient should be replaced in bed and be well covered up. His apartment should be kept at a comfortable heat (70° F. at least), the temperature being regulated by a thermometer.

These precautions are necessary, because more or less well-marked chilliness almost always follows the operation, varying, usually, with the previous degree of dyspnœa and the amount of blood lost in the operation. The external opening should be covered by a bit of stiff gauze, to protect it from extraneous matters, as employed by Andree in the very first operation; best applied above the wound, straddled upon a strip of adhesive plaster. In addition to this Trousseau strongly recomended "covering the neck with a knitted comforter, or a large piece of muslin, so arranged as to compel the child to respire into its folds, and thus inspire air warm and impregnated with the warm vapor furnished by the expiration. In this manner several untoward circumstances are avoided: drying of the cavity of the canula and of the trachea, irritation of the mucous membrane, and the formation of coriaceous crusts, which, becoming detached in complete tubes or fragments of tubes, cause terrific fits of suffocation, and sometimes death by occlusion of the canula." Before Messrs. Trousseau and Paul Guersant had adopted this practise, they lost many of their patients by catarrhal pneumonia; but this accident had become rare since, and they thought it probable that the introduction into the bronchi of a warm and humid air was a very favorable circumstance.

The use of this woollen cravat renders less essential another practice much in vogue for the same purpose of warming and moistening the inspired air; and that is keeping up an evolution of steam from boiling water, so that its vapor can be mingled with the inspiratory current, either by means of some special contrivance for conveying a current of warm vapor of water directly in front of the opening, or by allowing it to be generally diffused in the patient's vicinity. From personal experience of this practise in the medicinal treatment of croup, I would not feel disposed to forego it even with the use of the cravat. It appears to replace, in part, the moisture evaporated or absorbed from the exudative products in their transformation into the semi-solid or membranous form, and thus to keep them in a condition favoring their detachment and expulsion. Some operators keep the temperature of the room about 65° F., others, as Sayre, of New York, as high as 90°. That a high temperature is well borne in croup I have had ample evidence at a temperature of 80° to 85°, with an evolution of steam sufficient to cause the paper to loosen from the walls. Some of the German authors recommend keeping a sponge wrung out of hot water in front of the opening so that the air shall pass through its pores; a plan also recommended by Gerdy and Nélaton.

If the patient does not react well from the chill, warm aromatic drinks should be freely given, and flying sinapisms be applied to various parts of the skin; the evidence being that under these influences the face gradually resumes its normal color, the pulse increases in force, and the respiration becomes quieter so that the vesicular murmur can be heard in all portions of the lungs, except, perhaps, anteriorly, where intervesicular emphysema has taken place. At the end of a few minutes the child usually sinks into a calm, sweet sleep which lasts sometimes for several hours. In some instances indeed the child goes to sleep on the operating table, within a few minutes after the introduction of the tube.

The essay concludes by summing up the various points which he has discussed, and from them the author believes that the following conclusions may be safely drawn:—

1. That there are no insuperable contra-indications to tracheotomy in croup;

2. That the administration of an anæsthetic for the purpose of controlling the child's movements is admissible in performing the operation; but that it should be used with great caution;

3. That a careful dissection should be made down to the windpipe, and hemorrhage be arrested before incising it, whenever there is at all time to do so;

4. That the incision should be made into the trachea as near the cricoid cartilage as possible, to avoid excessive hemorrhage, and subsequent accidents which might occasion emphysema;

5. That a dilator should be used, or a piece of the trachea be excised, whenever any difficulty is encountered in introducing the tube;

6. That the tube should be dispensed with as soon as possible; or altogether if the case will admit of it;

7. That assidous attention should be bestowed upon the after treatment, especially that of the wound; and that a skilled attendant should be within a moment's call for the first twenty-four or forty-eight hours immediately following the operation.

The Breath, and the Diseases which give it a fœtid odor, with directions for treatment, by Joseph W. Howe, M.D., Clinical Professor of Surgery in the University of New York. D. Appleton & Co., New York; Dawson Brothers, Montreal.

This volume, of a little over one hundred pages, will be read with much interest by many members of our profession who in the course of their practice have met with cases of fœtid breath which have severely tried their patience and exhausted their Materia Medica. Marked changes in the breath have received but little attention from authors of text books—these large and usually comprehensive volumes seldom containing an allusion to their existence. That they form an important item in practice is evident from the numerous cases which are constantly presenting themselves for treatment. The first chapter treats of the Physiology of Repair, Decay and the composition of the inspired and expired air.

The second chapter treats of emotion as a cause of

fœtid breath. This is the weakest part of the whole volume—the cause really being indigestion, owing to the sudden arrest of the flow of gastric juice in the stomach, the result of sudden emotion—acting through the nervous system. We have never seen any cases such as detailed in this chapter, when, immediately on the emotion occurring, the breath becomes fœtid. The remaining five chapters are practical in their bearing, and contain a considerable amount of information. A number of recipes are given, which have been found useful. We notice, however, that he makes no mention of the internal use of creosote and of carbolic acid in cases of fœtid breath when there is much flatulence. We have found both of the above drugs extremely useful in such cases—in doses of two drops made into pill with liquorice powder, and taken an hour after each meal.

A Guide to the Practical Examination of Urine for the use of Physicians and Students, by JAMES TYSON, M.D, Hospital Lecturer on Pathological Anatomy in the University of Pennsylvania. Philadelphia, Lindsay & Blakiston; Montreal, Dawson Brothers.

We really have so many excellent works on the subject of the chemical and microscopic examinations of urine, that it would seem almost needless to multiplicate them. The author of this volume states that they are nearly all rather too thick or too ponderous as regards size for convenient use, and in this statement we think we can at all events in great measure corroborate him. He seems to have hit the happy medium, for the treatise now before us is convenient as to size, and yet contains everything really essential to understand, even in a subject so important as the pathological investigation of the urinary secretion. His experience has been very extensive, for during many years past a considerable part of each day has been devoted to this class of clinical investigation at the Philadelphia Hospital. The work is well illustrated, and is such a one as we can honestly recommend to those who desire to possess themselves of valuable information on a subject which it is disgraceful for even a third rate practitioner not to be thoroughly posted upon.

A Practical Treatise on the Surgical Diseases of the Genito-Urinary Organs, including Syphillis; designed as a manual for students and practitioners, with engravings and cases, by W. H. VAN BUREN, A.M., M.D., Professor of Clinical Surgery and diseases of the Genito-Urinary Organs in Bellevue Hospital Medical College, and E. L. KEYES, A.M., M.D., Professor of Dermatology in Bellevue Hospital Medical College. New York, D. Appleton & Co., 1874; Montreal, Dawson Brothers.

American medical literature is commencing to dive, so to speak, into a path, which has heretofore almost exclusively been cultivated by English and Continental writers. We allude to specialties. We know that many think the sub-divisions into which the profession has been diverted within somewhat recent years to be altogether unnecessary, and detrimental to its best interests. We cannot, however, endorse such views, for the steady growth which the science and art of medicine and surgery are making, make it an utter impossibility for the majority of the profession to be equally an adept in every branch. The specialties to which the authors of this volume have in good measure devoted themselves—at all events in their professorial capacity in Bellevue Hospital Medical College—are among the most important which can come under the notice of the surgeon. They are not unfrequently very difficult of treatment, and sometimes unsatisfactory as regards termination. In a large Metropolitan centre such as New York, a splendid field must be open for the study of affections of this class, and, after a careful glance at the volume before us, we are convinced that Drs. Van Buren and Keyes have availed themselves of the opportunities which have been presented to them in a manner creditable in the highest degree. We have not read the volume through, but we cannot help expressing our high appreciation of the chapter on stricture of the urethra. It is an admirable epitome of the literature on the subject up to date, with a very considerable amount of originality as regards the treatment. Fully two hundred pages are taken up in describing chancroid and syphillis, and in this space a very great deal of very valuable information is contained. Taking it as a whole it is an excellent contribution to American Medical literature, and in every way a credit to its authors. It would form a splendid addition to any medical library—but should especially be in the hands of those who are engaged in teaching surgery. Its appearance does credit to the well known publishing house of D. Appleton & Co.

BIRTHS.

HALL.—At Keima Lodge, Magog, on the 16th November, the wife of James B. Hall, Esq., M.D., of a daughter.

DEATHS.

ANDERSON.—At Durham, Ormstown, Que., on Wednesday, 11th November, John Anderson, Esq., M.D., and Coroner of the District of Beauharnois, a native of Aberdeen, Scotland, and for 40 years a resident of this Province, aged 67 years and ten months.

Original Communications.

Fibrinous Concretions in the Heart and large vessels. By BENSON BAKER, L.R.C.P., London, &c., late physician to the Star Street Dispensary, Paddington, London (late surgeon Allan S.S. "Polynesian.")

It is only of late years that the subject of this paper has received attention at the hands of the physician. The etiology and pathology of certain conditions of the blood which exist prior to the formation of fibrinous concretions, offer a field for suggestive and interesting inquiry. In the spirit of an inquirer I venture to record the facts I have observed, and to ask whether the interpretation of these facts, and the deductions drawn therefrom, may not be such as your reason and experience approve. Let the subject be discussed, some light will be let in, and eventually the truth will be elicited, or at least a new impulse will be given to further investigation.

The discovery of the circulation of the blood marked a grand epoch in medicine. Is the inquiry to stop here? Shall not that wonderful fluid, in its various and ever varying conditions be persistently interrogated? or, shall we fall back on the old Mosaic doctrine, the blood is the life, and seek in this organism all the initiatory changes that precede all other organic pathological changes. Does not the altered condition of the blood materially affect the force of the circulation, and does not a morbid condition of blood and altered force of circulation make up important factors in the change which special organs and the general system undergo? Examples of these pathological conditions are familiar to us in every day practice, *i. e.*, hypertrophy of the heart from kidney disease. Seeing therefore, the great importance attendant upon altered conditions of the blood, it behoves every student of medicine to interrogate the facts that come before him as to the antecedent condition, or the tendencies that precede such alterations in the organic constituents of the blood. In the variety of pathological appearances that are presented to us as the resultant of morbid changes, might it not be instructive and interesting to inquire what was the condition of the blood whilst these changes were being wrought out. Is there an excess of fibrin or a decrease in red blood corpuscles, or an increase in white corpuscles, or an increase in color. What part do the blood salts play, are they in excess or deficient, or in an alcoholic form; if so, does this or any other condition of the blood affect its osmosis? Is the chemico-vital action of which the blood corpuscles are susceptible disturbed or destroyed? if so, what part does the nervous system or electrical conditions play in this change; or are there certain morbific products destroying the consistency of the blood and tending to fibrinous concretions in the vessels, thus sapping systemic life, and causing death.

Professor Huxley states that coagulation of the blood is a purely physico-chemical process dependent upon the properties of certain of the constituents of the plasma apart from the vitality of the fluid, if the blood plasma be prevented from coagulating by cold and greatly diluted, and a current of carbonic acid passed through it, will throw down a white powdery substance. If this substance be dissolved in a weak solution of common salt, or an extremely weak solution of potash or soda, it will coagulate and yield a clot of true, pure fibrin.

It would be absurd to suppose that a substance which has been precipitated from its solution and redissolved still remains alive. There are reasons for believing that this white substance consists of two constituents of very similar composition, which exist separately in living blood and the union of which is the cause of the act of coagulation. The reasons may be briefly stated thus: The pericardium and other serous cavaties contain a clear fluid which has exuded from the blood vessels and contains the elements of the blood without the blood corpuscles. This fluid sometimes coagulates spontaneously as the blood plasma would do, but very often it shows no disposition to coagulate; when this is the case it may be made to coagulate and yield a true fibrinous clot, by adding to it a little blood serum.

Now, if serum of blood be largely diluted with water, and a current of carbonic acid gas be passed through it, a white powdery substance will be thrown down; this redissolved in a dilute saline or extremely alkaline solution will, when added to the pericardant fluid, produce even as good a clot as that obtained with the original serum. This white substance, named globulin, exists not only in serum, but in various tissues of the body. It possesses the same

chemical properties as the albuminous substance which enters so largely into the composition of red corpuscles. When treated with chemical re-agents, though they may produce no appreciable effect on its chemical composition, nevertheless it loses its peculiar power of causing serous fluids to coagulate. Hence, though there is great reason to believe that the fibroplastic globulin which exists in the serum does really come from the red corpuscles, the globulin which is obtained in large quantities from these bodies by the use of powerful re-agents has no coagulating effect on the pericardial or other serous fluids.

Though globulin is so unsusceptible of change when in solution, it may be dried at a low temperature and kept in the form of powder for many months without losing its coagulating power. This globulin added, under proper conditions, to serous effusion, is a coagulator of that effusion, giving rise to the development of fibrin in it. This it does by its interaction with a substance contained in the serous effusion, which can be extracted by itself, and then plays just the same part towards a solution of globulin as globulin does towards its solution. This substance, fibrinogen, is exceedingly like globulin, and may be thrown down from serous exudation by carbonic acid, just as globulin may be precipitated from the serum of the blood. Thus it would clearly appear that the coagulation of the blood and the formation of fibrin are caused primarily by the interaction of these two substances, viz., globulin and fibrinogen—the globulin existing in the serum of the blood and some other tissues, whilst the fibrin often exists in the plasma of the blood, lymph and chyle.

The preliminary considerations of these physiological conditions of coagulation of the blood may possibly enable us the better to appreciate the pathological conditions antecedent to the formation of fibrinous concretions. If an excess of alkali or the presence of acids possess the power of destroying the coagulating properties of globulin, and, consequently, of arresting the formation of fibrinous concretions, what a valuable fact is discovered!

In discussing fibrinous concretions in the heart and large vessels, it may not unreasonably be asked, why not follow the nomenclature of Virchow, and speak of thrombus and embolus. The reason is simply that fibrinous concretions is an accurate description of the actual condition found on post mortem examination, and does not commit me to the etiology of the clot. Whereas thrombus, *i. e.*, a clot, and the process thrombosis, by which the clot becomes clotted, and embolus, a projected coagulum detached from the walls or valves of vessels and carried into the circulation, does imply a theory and knowledge of the formation of these concretions. The records of concretions in the heart, arteries and veins are but of recent date, nevertheless, they are exceedingly interesting and instructive. To the busy practitioner as well as to the physiologist and pathologist, do these conditions demand the most searching investigation. The practical significance of this condition is at once recognised when we associate it with the various diseased conditions of the different organs in the body. Nor is this all, certain local conditions of pressure and irritation have resulted in the formation of concretions in the vessels, and they, in turn, have become the chief factors in the production of pyæmia, or gangrene, or even softening of the brain. Dr. Aitkin says, he has never traced a case of phlebitis or pyæmia without discovering that the affection essentially begins by a real coagulation of the blood at some fixed point. When this beginning is discovered it is exceedingly significant as pointing to some source of local irritation, which, by simple disturbance of the flow of blood in some way, determines the formation of a clot. M. Ribes describes several cases illustrative of the formation of clots. In one case chilblains was the starting point, clots formed in the veins, proceeded to the superior veni cava, into the right auricle and ventricle, and thus causing death.

There are, doubtless, many proximate causes tending to the formation of clots in the veins, and that they occur much more frequently in our practice than is generally supposed. The more attention is directed to this subject, the more obvious will be the common cause of sudden death revealed in cases of wounds, fractures and operations.

The conditions favorable to the formation of clots in vessels are to be found where veins open upon fœtid ulcers or where noxious gases are readily absorbed. These conditions tend to alter the fluidity of the blood. The poisoning of the blood by septic matter has long been recog-

nized, but it is still questionable whether the influence of poisonous matter on the coagulability of the blood in the living vessels has received that care and attention which its importance demands.

A coagulum once formed in the vessels may either undergo a complete fibrinous organization and become like connective tissue, or it may undergo, as was shown by Mr. Gulliver, a change of structure; the central layers may become puriform in character and chiefly composed of granules. These clots may, and often do, soften, break up, and are again carried into the circulation, and thus give rise to pyœmia. It thus becomes manifest that clots, however small and insignificant, in the peripheral veins, may lead to very serious if not fatal results. The size of the capillaries they have to pass through determines the locality of the secondary deposits and abscesses. The capillaries in the liver are well known to be larger than in the lungs, hence metastatic abscesses would be produced in the lungs, because the capillaries of the liver allow the debris to pass through them, and the capillaries of the lungs arresting the progress of the morbific product. This is considered by Virchow as so certain and conclusive, that he is inclined to regard all cases of metastatic abscesses of the lungs as of embolic origin. In cases of puerperal fever followed by metastatic abscesses in the lungs, he invariably discovered thrombi in the pelvic vessels. The connection formed in the veins and those found in the heart and large vessels must, from the preceding remarks, become apparent. It may be useful, for the purpose of discussion, to classify fibrinous clots into venous and arterial, and to note those clots that are associated with cardiac disease, vascular disease, or both; also those clots that are not associated with organic disease of the heart or vessels, but which appear to depend for their formation on certain antecedent pathological conditions of the blood.

1st.—The formation of fibrinous concretions associated with organic disease of the heart is easily understood, in those cases where the disease of the mitral or aortic valves interferes with the circulation of the blood, thus forming a mechanical obstruction and consequent coagulation. On this physiological process we depend when we employ pressure for the cure of aneurism. Again the detachments of fibrinous growths from the valves of the heart is a frequent cause of arterial embolism. The atheromatous condition of the vessels, as it roughens the inner coat and obstructs the circulation, has a tendency to separate the fibrin from the serum of the blood, and the result is a fibrinous clot.

2nd.—Venous concretions. The formation of these concretions on the right side of the heart are frequently associated with fatty degeneration of the heart: the action of the heart is enfeebled, and consequently the circulation of the blood is retarded, a clot is formed. Clots are generally formed near some diseased portion of the arterial walls; there may be either atheromata or local inflammatory action, irritation or constriction of a vessel; but, when once formed, the clot may become detached and carried onwards in the circulation to some part of the vessel perfectly healthy. When a clot is thus discovered it was evidently not formed *in situ*.

The next group of cases in which I have found fibrinous concretions are those in which I failed, after most careful examination, to discover any organic disease of the heart or blood vessels. Consequently, I surmise that their formation was due to some antecedent pathological conditions of the blood. These cases suggest some very valuable and practical thoughts on the treatment of disease. The subjects of fibrinous concretions not associated with heart disease, nor disease of the vessels, nor traumatic injuries, were all children. The following cases have come under my observation, and a record of them may not be devoid of interest to the busy practitioner.

Case 1.—A. E., the child of Mrs. E., aged 18 months, was attacked with scarlet fever, malignant sore throat, nephritis, dropsy, albumen in urine, and casts. The case went on and was apparently doing well, except that it continued weakly and was having a tedious convalescence. There was nothing marked or unusual in the condition of the child until five weeks after the attack, when the child was suddenly taken ill about two o'clock in the morning. The father, an intelligent man, noticed that his child's heart was beating violently, and that it became suddenly pale and in a cold sweat, with twitching of the arms and legs. In a word, it was in convulsions, and died before my arrival. Now, what was the cause of death? The ready answer would be convulsions after and depen-

dant on the scarlatina, but what did the post mortem show?

1st. The *Head.*—Effusion of serum beneath the membranes of the brain.

Chest, Lungs.—Congested serous effusion into the pleura and pericardium.

Heart.—A decolorised fibrinous clot plugging up the pulmonary artery.

Peritoneal cavity.—Serous effusion.

There were no traces of albumen nor casts in the urine.

Case 2.—The mother of this child was under my care for some time. She became pregnant with twins, and suffered considerably from hydrops-amnios. One of the twins was arrested in its development at about the fifth month. The mother was delivered at the full term of a fine healthy child and of the arrested fœtus. The living child appeared to do well for three weeks or a month, and then the mother lost her milk and the child was hand-fed. It then began to fade away, and became anæmic like the mother. At times it would appear to improve and give promise of doing well, then fall off again, and so matters went on for eighteen months, when suddenly the child, one morning, appeared faint and died without making a single cry, as it was lying on its back in its cot.

The post mortem revealed the following appearances:

Externally the child was pale and wasted There was effusion into all the serous cavities and fibrinous concretions in the heart. The pericardium was distended with serous fluid to such an extent that, on pricking it, the serum spurted out. In this case the serum was outside and fibrinous concretions inside the heart. Was this the result of osmosis dependent upon an altered condition or alotropic state of the saline constituents of the blood, or was it an inherited predisposition traceable to the disease of the amnion?

Case 3.—Mr. W.'s child, aged 9 months. This child was put out to nurse and fed by the bottle. It was one of those baby-farming cases. The nurse frequently, nay, almost habitually, dosed it with Mrs. Winslow's Soothing Syrup. It was in a comatose state for hours. The child became pale, anæmic and shrivelled. It died suddenly. There was no evidence that, on the day of its death, it had any soothing syrup given to it, or any other opiate. The post mortem revealed serous effusion in all the serous cavities, and fibrinous concretions in the heart. These concretions were not post, neither clots. they were colorless and organized. It is admitted that noxious gases absorbed into the blood affect its coagulability. What part then did this chronic opium poison play in causing the fibrinous concretions found in this case. Was it directly by interfering with the dynamics of the circulation, or was it by inducing an imperfect assimilation of food and the elimination of effete matter, thus depriving the blood of its normal constituents or catolytic properties?

Case 4.—The next case was that of a child that had recently recovered from an attack of diphtheria. The child was exceedingly weak. It appeared slightly paralyzed; the heart's action was feeble but excited. The child grew worse suddenly, and died apparently from exhaustion. The post mortem shewed serous effusion into all the serous cavities and fibrinous coagula in the cavities of the heart and large vessels. W a the plugging in this case due to the contagion of diphtheria circulating in the blood, or to the depression of the nervous system as indicated by the heart's action?

In this group of cases three conditions appear to be constant, viz: 1. Serous effusion into the serous cavities. 2. An antecedent anæmic condition of the blood. 3. A fibrinous concretion in the heart or large vessels. These conditions supervene, not unfrequenty after the little patient has passed through some acute zymotic disease. It is exceedingly annoying, after carefully watching a case of malignant scarlet fever or diphtheria through the acute stage and giving favourable prognosis to parents and friends, all at once to be summoned to your little patient, either to find the child dead or beyond your power to assist in prolonging life, and this to have come upon you unawares, and thus place you in that unpleasant position, that you are bound mentally at least to confess that you did not expect such a termination to the case.

I feel fully persuaded that if post-mortem inspections were generally made in cases of children that die from acute diseases, that fibrinous concretions in the heart and large vessels would not unfrequently be found to be the cause of the sudden deaths in these cases which are recovering from zymotic disease.

The practical question arises, what is to be done? First, carefully consider the probable condition of the blood of your patient, and recognize the probability and tendency there is to serous effusion and fibrinous concretion resulting in blood disintegrated by zymotic disease. Which remedy offers the best chance of restoring the blood? Under these conditions I have found some preparation of iron of the greatest value. It materially affects the dynamics of the circulation, and is the best prophylactic. When once the clot is formed, ammonia in large doses in milk may be given with success in some cases.

The next group of cases comprise those in which there was organic disease, either fatty heart, valvular disease or atheroma of the vessels. There were six cases, two of which were seen by consulting physicians in London, who confirmed the diagnosis, but a post-mortem was not allowed. In the other four cases I was allowed to make inspections.

Case 1 was a woman aged 74, she had been a notorious drinker; she suffered from occasional attacks of dyspnœa, and died suddenly. The post mortem appearances were as follows:

The Head.—There was effusion of serum beneath the membranes; the brain was shrunk and soft; the membranes thickened and opaque.

The Chest.—The lungs were both congested; the heart was exceedingly fatty, so much so that on lifting it up in order to divide the large vessels my fingers accidentally went through the right auricle; the muscular structure tore like wet brown paper; there were discoloured fibrinous clots in the right side of the heart extending to the pulmonary artery.

The stomach was empty; the coats were thicknened and corrugated like the lining membrane of a fowl's gizzard; the liver was coirhotic.

The kidneys were healthy; the capsule easily pealed off, and the medullary and corticle portions appeared perfectly distinct and normal. There was an atheromatous condition of the aorta and the vessels at the base of the brain.

Case 2.—A. W. was a professor of languages; he had complained of great difficulty of breathing for several years. He had been told he was suffering from asthma and treated for that complaint. He believed he had heart disease and that he should die suddenly, consequently he never went out without his name and address attached to his clothes. Previous to May, 1872, he had two fits in the street, but he recovered. On the 8th May, 1873, he suddenly felt faint and went into a public house for a little brandy and water; before he could get it to his lips he fell down in the bar dead. I saw him directly, his face was livid, his hands clenched, there was a cold sweat on the face and chest. The following are the post-mortem appearances:

Head.—There was a little serous effusion beneath the membranes of the brain. On making a section of the left hemisphere there were the remains of two clots, they were almost decolorised, and were respectively the size of a pea and a half a horse bean; they differed in degree of colour; the basilar arteries were atheromatous, the brain structure was soft.

Heart.—The heart contained fibrinous clots; a section of one showed fat globules under the microscope; the lungs were congested; the other organs were healthy.

Case 3 was a woman aged fifty, she died suddenly; had been an excessive spirit drinker. The post-mortem showed thickening and opacity of the membranes of the brain; effusion of serous fluid beneath the membranes; brain substance shrunk; the arcus senilis well marked; the lungs were congested; effusion into the pericardium and fibrinous clots in the left side of the heart; the liver was cirrhosed; the kidneys healthy; the stomach thickened.

Case 4 was a boy aged twelve years, he had suffered from rheumatic fever and died suddenly; the heart was enormously hypertrophied, it weighed seventeen ozs; the pulmonary artery was firmly plugged with a white fibrinous clot; the lungs were congested.

From the above cases it would appear that fibrinous concretions may be formed under certain dynamical conditions of the circulation. The heart may be fatty and fail to carry on the circulation equably through the vessels, or the vessels may not exert equably their elasticity and thus aid mechanically in the production of fibrinous concretions. The diagnosis of the structural changes of the heart and vessels has been carried to a high state of perfection, and it is possible to point out to what extent the circulatory apparatus is defective; but it is necessary to bear in mind that the mechanical apparatus is a living organ depen-

dent for its own existence on the manner in which its operations are carried out. Hence the importance of recognising the conditions of blood which precede all pathological changes. In cases of apoplectic clots in the brain, Dr. Sieveking has shown that if a patient survive a fortnight or three weeks that blood crystals are formed. It would appear that these blood crystals do not form from clotted blood until the blood corpuscles have become ruptured by endosmosis. May not the same pathological process be carried on in the heart? If so, what an important factor the blood salts play in this fibrinous change.

In cases of splenœmia the blood was found by Scherer to have the following abnormal constituents: lactic, acetic and formic acids and a peculiar substance (hypoxanthin) to the extent of 6 per cent. This hypoxanthin is normal in the spleen but not in the blood. Conditions of the blood expressed by the terms anæmia, splenæmia, leucocythemia, are those in which will be found grey yellow coagula in the heart and large veins. These coagula, says Vogel, are made up almost entirely of colourless corpuscles. The conditions of the blood in different diseases would be exceedingly interesting. Dr. Dulcher, of Ohio, has arrived at the following conclusions with respect to the blood in phthisis.

1. That there is a decrease of the red corpuscles and a slight excess of the white.

2. That there is an increase of fibrin and a deficiency of its vitality.

3. That the albumen is in excess as to amount, but depraved in quality and unfit for the elaboration of healthy fibrin.

4. That there is an increase of dissolved animal matter and a diminution of saline matter.

5. That there is a reduction of its specific gravity and an increase of its watery particles.

The above conditions I have known to be associated with fibrinous concretions in the hearts of phthisical patients. The old proverb, a stitch in time saves nine is as true in disease as in economics. A knowledge of the initiatory blood changes if recognised could be more easily modified or prevented than when those changes have fully expressed themselves in organic structural changes.

Progress of Medical Science.

CLINICAL LECTURE ON THE USE OF DIGITALIS IN DISEASES OF THE HEART.

Delivered at the Philadelphia Hospital by H. C. Wood, JR., M.D.

There are, gentlemen, primary physiological facts concerning the action of digitalis which I shall to-day lay down somewhat dogmatically as the premises for the discussion of the subject. I do this because time is wanting in which to give you the proofs of these premises, even if they were not out of place in a clinical lecture-room; and I do it the more willingly because those of you who may be inclined to be skeptical can find these proofs in detail in my treatise upon therapeutics.

By experiments on the lower animals two things have been definitely ascertained: 1, that in the lower animals digitalis is a very powerful stimulant to the inhibitory apparatus of the heart; and 2, that it is also a powerful stimulant to the muscular substance or its contained ganglia.

We know the first because after the administration of the drug, when the heart has already been affected by it and is beating slowly, if the inhibitory nerves be cut, the organ springs, as it were, into an intense rapidity of action. The drug stimulates the cardiac muscle, because the amount of work performed by the heart is vastly increased under its influence, even when the viscus is disconnected from the body. We also know as a probable fact that digitalis causes a general vasomotor spasm, a contraction of the muscular walls of the vessels. Thus much for the observations made on the lower animals.

When digitalis is administered to man, the first thing we observe is a diminution in the number of heart-beats and an alteration of the character of the pulse, which becomes full, and hard, and strong. You can recognize by the feel of the blood-wave that both the force of the contraction of the heart and the amount of blood thrown out during the systole are increased. If the drug is given in poisonous doses the pulse may, it is true, become rapid, and smaller than normal. The meaning of this can be explained by referring again to the animal. We find that here the same phenomena are observed, and that if a very large dose is given, the heart may be suddenly arrested in systole from irritation of the cardiac muscle; before this happens, for a time, the tendency to contract is so great that the systole will occur before the complete filling up of the cavities. Two short imperfect waves are thus produced instead of one long one: this is the double beat,—forming a dicrotic pulse. In man the "dicrotic pulse" of digitalis is classical, and its mechanism is evidently the same as that of the double arterial wave in the lower animals: instead of a long pause and a full dilatation, the first attempt at diastole is interrupted by an abortive systolic contraction. As in animals, probably in these

cases also, the apex of the heart scarcely relaxes at all. Again, a person under the influence of digitalis may have a heart beating 50 or 60 per minute when in the recumbent posture, but on sitting up the pulse may suddenly become weak and mount to 100 or 120. The action of digitalis has been carried in such a case to the point at which an excess will throw stimulation into overstimulation and imperfect contraction. The act of rising brings an extra strain on the heart, and the muscle loses its power of regular action.

Digitalis, then, in man, by its action on the inhibitory apparatus, prolongs the period of diastole, thus giving time for the ventricles to fill up with more blood than usual, and also increases the muscular power of the heart, so that when it contracts a greater volume of blood is thrown with a greater force into the arterial system. Before we begin to apply these principles, remember also that the vascular system under the control of the vasomotor nerves is probably kept in a state of contraction by the influence of digitalis.

Almost nothing but common sense is needed now to apply these facts to the treatment of heart-diseases. If what has been said is true, digitalis ought to be useful when there is a deficiency of heart-power. Remember that it is not a rag that will stop up a leak; and do not fall into the common error of expecting the drug to perform impossibilities. It cannot tighten a leaking valve. It cannot open and smooth down a contracted orifice. In other words, in valvular lesions it can only indirectly remedy the defects; and, although often you will get the most surprising results from its use, yet in every case of valvular lesion there comes, sooner or later, a stage when digitalis is powerless. It is when the valves are healthy, and the cardiac failure is due simply to weakness of the muscular walls that digitalis exerts its most wonderful powers. Nothing is more marvellous in clinical medicine than the relief you can sometimes rapidly afford in cases of simple dilatation of the heart. The following extract from my private note-book will probably do more than any declamation to impress this fact upon you:

"Mr. D., æt. 55, when first visited in the morning was found in a condition of intense cardiac dyspnœa. There was no cardiac murmur, and nothing to indicate a valvular lesion; but the heart-sounds were very feeble, and the impulse was exceedingly weak and fluttering; its area as well as that of the percussion-dulness was widely extended. The urine was albuminous, and the patient was passing only three or four ounces in the twenty-four hours. The sick man sat during the whole day and night leaning against the back of a chair, struggling for breath. He would fall asleep for an instant, the respirations becoming feebler and more and more distant, until the face grew livid and deathlike, when suddenly he would awake with a violent start, and enter upon a succession of labored, gasping, struggling respirations. In three or four minutes he would become quiet; then the respirations would grow slower and slower until at times they would be entirely suspended for nearly a minute, when he would awake with a start as before. For several weeks, under the care of a notorious dispenser of diluted nothings, this man had spent in this manner nights and days of horror with death staring him in the face. He assured me that he had not been conscious of sleeping for over a week, and that he only wanted to get sufficient relief to allow him to get to his home in the far West and make some business arrangements before going the long journey. He was ordered fifteen drops of tincture of digitalis every two hours. At the end of twelve hours the effects were already manifested. The pulse had fallen from 102 to 94, and it was fuller and stronger than before. The agony of the spells was slightly relieved by the administration of morphine. Quinine and stimulants were also given. In the next twenty-four hours seventy-five drops of the tincture were given, and the pulse fell to 84 and became full, strong, and regular. He passed over a pint of urine. During the ensuing night the patient took no digitalis, and his pulse was not so strong in the morning as it had been, although only 86: during the day following he was given forty-five drops of the tincture: in the twenty-four hours he passed one and a half pints of urine.

"Not to weary you with details, I will tell you that, continuing the use of the drug, in the course of two or three days the spells of dyspnœa almost disappeared, and he was able to sleep in his bed. In a few weeks this man returned to Omaha, where he died suddenly a few weeks later."

Let me give you, gentlemen, another lesson from my note-book:

"A physician leaving town for a few days asked me to take charge of a lady patient of his, whom we found in our visit together very much in the same condition as the case just described. She had been taking five or ten drops of tincture of digitalis three times a day. I suggested a large increase of the dose; and my friend, turning to the patient, said, 'Doctor, this woman has been in this chair many weeks: I have done all I could for her, but life is a heavy burden to her: she wants to die. You can't do more than kill her: if anything offers a prospect of relief, she wants it, no matter what are the risks. She is well pleased to have you kill her.' The patient nodded acquiescence. It was the strangest scene I ever witnessed in a sickroom. Digitalis was therefore ordered in large and constantly-increasing doses. The result was that, a few weeks subsequently, when my colleague returned and rang the door-bell of the house, this woman came down from the third story to let him in."

The dilated heart is weak, and also is embarrassed by that weakness. Owing to its want of power, the circulation begins to fail; then instantly through the nervous system come the demands from all the tissues: more blood, new blood, better blood, is wanted. The heart is irritated beyond

measure; it gets flustered, as it were, and its beats become rapid, irregular, and even more inefficient than at first; the diastole never lasts long enough for the ventricle to fill itself, the systole for the ventricle to empty itself. Then it is that digitalis lays its strong grasp upon the organ and bids it keep still; it gives it time to fill itself with blood, and power to propel this blood through the system. In this way it is that the tissues, being satisfied, cease to urge the heart, that the lungs clear, and the dyspnœa abates.

Never as long as you live, gentlemen, give, in these cases of rapid pulse with cardiac weakness, aconite or veratrum viride. They are the very antagonists of digitalis, and when the latter does good they would act as true poisons.

Suppose we now consider the opposite extreme to dilatation,—namely, hypertrophy of the heart; where the organ heaves and throbs and the whole frame is shaken by the powerful impulse. Digitalis will very readily bring about in this heart a condition of spasm, and the patient may drop dead from syncope, depending upon a contracted heart. Thus digitalis, by stimulating a muscle already too powerful, does harm in simple hypertrophy of the heart. Here it is that veratrum viride and aconite are of service. Veratrum viride, whilst stimulating slightly the inhibitory apparatus, weakens most decidedly the muscular force of the heart. Under its use the pulse grows weaker and smaller.

There is another disease of the heart not connected with valvular lesion, in which digitalis is of great service. I refer to the irritable heart. It is most frequently found in soldiers, and in persons subjected for a long time to muscular strains.

As an instance of this irritable heart occurring in civil life, I mention the following case which I recently saw. A robust young man was in training for a rowing-regatta on the river. After a while he began to lose his wind sooner than his companions; and at last he had to give up the exercise altogether, tor he was hardly able to walk up-stairs without severe palpitations and distress about the heart.

Irritable heart is nearly always due to over-strain of the viscus, is generally associated with weakness, and usually tends towards the production of cardiac dilatation. It is, I suspect, in some measure dependent upon a loss of power in the cardiac inhibitory apparatus. For obvious reasons, then, in most cases of irritable heart digitalis is of the utmost service. In some instances, however, the tendency is towards hypertrophy, and not towards dilatation. Under such circumstances, veratrum viride, not digitalis, is indicated.

In valvular disease with dilatation there always is weakness of the heart. Here the effect of digitalis is not so marked as in simple dilatation; but still, by regulating the heart's action, it probably diminishes the leakage of blood, and, by giving strength to the muscle, makes up to a certain extent for the deficiency.

Some of you may have seen me prescribe digitalis in cases of hypertrophy with valvular disease, and you may think that I contradict myself; but it is not so. The mere existence or non-existence of hypertrophy in a case of valvular disease is no criterion for the administration of the drug. The point to be decided is whether there be or be not *relative* hypertrophy; whether the increase in the strength of the cardiac muscle has or has not been proportional to the increase in the work required of it. To make this clearer, let us suppose that the healthy heart has to exert a force equal to 100 to pump the blood through the system. When there is a leakage, the amount of work being increased, the amount of force needed will also be much greater. Suppose that the amount of work needed of the diseased heart then equals 200. It may be that hypertrophy shall occur under these circumstances to such an extent as to double the cardiac power; then all will be well: double work and double power will mutually balance each other. If, however, the increase of power shall fall short, amounting only, let us suppose, to 150, the organ is really in the condition of dilated heart. It is not the amount of power in the muscle, but the proportion of power to the demand, that is the question. A heart may be absolutely hypertrophied, but relatively dilated. Hence it is that the great question for the therapeutist is not to know which valve is diseased but whether there is force enough for the demand. This is the criterion that must guide you in the administration of digitalis.

Practically, I believe the minute diagnosis of the exact character of the valvular lesion is often not important, and the question as to the availability of digitalis may be determined by studying the condition of the system. If the heart cannot pump the blood with sufficient power, of course the arterial system will be comparatively empty, whilst the veins will be full. Imagine the mitral valve to be eroded; at each contraction of the left ventricle there is a certain amount of blood thrown back into the auricle; this become distended, and cannot empty itself properly; the pulmonary veins opening into the auricle become engorged, and fail to carry the aerated blood away from the lungs. These become congested, so that the right heart, whose business it is to pump venous blood into the lungs, fails to do so properly, becomes distended, and prevents the unloading of the venous system through the two venæ cavæ; as a consequence of this general venous engorgement, œdema and dropsy come on. Almost always when you have venous congestions and dropsies the heart is weak; and you may set it down as a practical rule, with exceedingly few if any exceptions, that cardiac general venous congestions and dropsies call for digitalis.

In concluding this lecture, I call attention to the man before you as illustrative of the value of digitalis in giving temporary relief in cases of the most desperate and hopeless character. You will

also notice the fact that in my treatment I have been guided by the general symptoms rather than by the cardiac lesion. Owing to the irregular and feeble action of the heart, the indistinctness of the murmurs, and the fact that auscultation distresses the patient exceedingly, I have been unable to make a positive, accurate diagnosis; in fact, at my first visit the condition of the patient was such I did not even attempt a cardiac examination.

"George R., æt 43, German: shoemaker: admitted Oct. 3, 1874, into the house, complaining of nothing but dyspnœa, with which he had been suddenly attacked a month before, whilst working in a damp cellar. The dyspnœa was very great: the urine albuminous; the abdomen very hard and tender. There were two marked lateral areas of dulness, which presented distinctly the outlines of the liver and spleen, the edge of the liver-dulness extending to within one inch of the crest of the ilium. There was some œdema of the feet. All these various evidences of damming back of the blood in the abdominal organs betrayed an intense cardiac obstruction. On the morning of the 6th of October the patient's pulse was 112, very nearly what it had been since admission, and he had passed only eighteen ounces of urine it the last twenty-four hours. He was then ordered f℥ ss of infusion of digitalis every there hours. To-day, the 10th of October, the shortness of breath is better, and he eats better, because the congestion of the stomach has been relieved. We must expect to find also a similar relief in the other abdominal organs. On percussion, the liver-edge is found two inches higher up than at the last measurement. The enlargement of the spleen has almost disappeared. The pulse, which was exceedingly weak, has become large and hard, and does not reach above 100. The congestion of the kidneys has been much relieved: we find that he now passes thirty-six ounces of urine in the twenty-four hours.

This man, then, has been very much improved, and yet we do not know what is the matter with his heart. The presence of so much portal congestion would seem to point towards the existence of disease of the right heart.

At a future lecture, gentlemen, I shall point out more in detail how digitalis is of value in special cardiac valvular diseases, and how it is sometimes absolutely curative, and shal. also speak of its danger and mode of administration.

SHIVERINGS.

Sir James Paget lately gave a clinical lecture on this subject, of which notes appear in the *Students' Journal and Hospital Gazette*: —

"Shiverings were regarded as striking forms of nervous storms, the most striking form being megrim. They are a kind of convulsion, characterised by trembling sand startings of the limbs, with a morbid condition of the sensory nerves, as coldness, which is really illusory, since the temperature rises as in ague, and minor feelings, as a feeling of coldness, contraction of skin and arteries, &c.

"A shivering fit may be replaced either by an epileptic fit, as in a case of a man who had an epileptic fit followed by the formation of an abscess in the prostate, or a state of coma, as occurred in a person to whom an abscess followed on it; or in children, by convulsions or collapse. Surgical shiverings may be classed—1. As regards abscess. 2. Injuries and operations. 3. Injuries of the urethra.

"I. An abscess is *most* likely to follow on a shivering fit, but not always. The absence of shivering does not denote that an abscess will not follow, for some persons seem incapable of shivering. Shiverings may be taken as a help to the diagnosis of an abscess, to distinguish it from a solid tumour. They may be periodic, resembling ague, especially in an abscess of the brain in connection with some diseased bone.

"II. After a severe injury (i.) shivering may occur without harm resulting, as in a man who fell through a window upon the back of his head. (ii.) After an operation, if shivering follow within 24 hours, or anyhow within 12 hours, it seldom denotes anything of importance; it may occur through placing the patient in a cold bed, but after 24 hours it denotes something significant, either—i. Abscess at seat of injury; ii. pyæmia; iii. erysipelas. The longer the time the temperature has been noticed to be going up, so much the greater will the mischief be that follows. The mischief that will succeed on the shivering fit cannot always be determined by the character of the shivering. As a rule, in pyæmia the shivering and sweating are greater than in erysipelas, and occur several times; whereas in erysipelas the shivering occurs but once, and in addition there is vomiting. Frequently a shivering fit will precede a cutaneous eruption, as eczema or urticaria after operations.

"III. *Urethral Shivering.*—Persons in full health often shiver when passing water their bladder having got very full; so, after lithotomy, severe shivering and sweating may occur the first time the urine is passed by the urethra. In cases of stricture of the urethra shiverings often happen, which may be periodic, resembling ague, so that a mistake in diagnosis may and has occurred. Some persons always shiver on the passage of an instrument along the urethra, and then it means nothing. This does not happen with their other mucous passages. After passage of a catheter for the first time serious shiverings may follow, which may be succeeded by (i.) pyæmia; (ii.) local inflammation of the part; (iii.) suppression of urine; (iv.) fall in the specific gravity of the urine. I have heard of six cases in which death even has followed, so never pass a catheter for the first time on a person unless he is going quietly home and into a warm room. Always too, notice the quantity and specific gravity of the urine subsequently passed.

"*Spurious Shiverings.*—Some shiver at every-

thing; it means nothing, being a form of hysterical convulsions. Persons who have once had ague, whenever they get out of health, *always* have repetition of the ague, as in a person after an operation, who had ague for the first time fifty years ago.

"*Treatment.*—To any person who might be suspected of shivering after the passage of an instrument, give quinine gr. 5, and opium gr. ½: short of this some stimulant. Quinine after operations will stop the shivering, but not the pyæmia, if it is going to follow."

EXTERNAL TREATMENT OF VARICOSE VEINS.

Dr. Linon says, in the *Tribune Medicale*, that he has treated such cases with success by swathing the leg in a flannel compress wet with a solution of chloride of iron in water, forty-five grains to the ounce, and then applying a roller flannel bandage over it firmly for twenty-four hours. This is to be repeated daily for a week or two weeks, when the patient is, or ought to be, well.

ON IPECACUANHA SPRAY IN WINTER COUGH AND BRONCHITIC ASTHMA.

Dr. Sydney Ringer and Mr. William Murrell in a communication to the *Lancet* (Sept. 5, 1874) state that "the successful use of a secret remedy by a well-known practitioner induced us to try the effect of inhalation of ipecacuanha spray. Our results have been so satisfactory that we desire to draw the attention of the profession to this mode of treating these obstinate complaints—winter cough and bronchial asthma. Our observations were made during January and February. Whilst under this treatment the patients took only coloured water, and continued their usual mode of living in all respects.

"We shall first refer to winter cough. We have made observations on twenty-five patients, whose ages varied between forty-five and seventy-two, with one exception—that of a woman of thirty-two years. We purposely choose severe cases."

In winter cough "our results have been very striking, although in many of our patients so bad was the breathing that, on being shown into the out patients' room, they dropped into a chair, and for a minute or so were unable to speak, or only in monosyllables, having no breath for a long sentence. We used the ordinary spray-producer, with ipecacuanha wine pure or variously diluted. On the first application it sometimes excites a paroxysm of coughing, which generally soon subsides, but, if it continues, a weaker solution should be used. The patient soon becomes accustomed to it, and inhales the spray freely into the lungs. At first a patient inhales less adroitly than he learns to do afterwards, as he is apt to arch his tongue so that it touches the soft palate, and consequently less enters the chest than when the tongue is depressed. The spray may produce dryness or roughness of the throat, with a raw sore sensation beneath the sternum, and sometimes it causes hoarseness; whilst, on the contrary, some hoarse patients recover voice with the first inhalation. As they go on with the inhalation, they feel it getting lower and lower into the chest till many say they can feel it as low as the ensiform cartilage.

"The dyspnœa is the first symptom relieved. The night after the first application the paroxysmal dyspnœa was often improved, and the patient had a good night's rest, although for months before the sleep was much broken by shortness of breath and coughing. The difficulty of breathing on exertion is also quickly relieved; for often after the first administration the patient walked home much easier than he came to the hospital, and this improvement is continuous, so that in one or two days or a week the patient can walk with very little distress, a marked improvememt taking place immediately after each inhalation; and although after some hours the breathing may again grow a little worse, yet some permanent improvement is gained, unless the patient catches a fresh cold We have heard patients say that in a week's time they could walk two miles with less distress of breathing than they could walk a hundreds yards before the spray was employed. In some instances two or three days' daily spraying is required before any noticeable improvement takes place, the comparatively slow effect being sometimes due to awkward inhalation, so that but little ipecacuanha passes into the bronchial tubes. The effect on the cough and expectoration is also very marked, these both greatly decreasing in a few days, though the improvement in these respects is rather slower than in the case of the breathing. Sometimes for the first few days the expectoration is rather increased. It speedily alters in character, so that it is expelled much more readily, and thus the cough becomes easier, even before the expectoration diminishes.

"Treated in this way the patient is soon enabled to lie down at night with his head lower, and in a week or ten days, and sometimes earlier, can do with one only pillow. This improvement occurs in spite of fogs, damp, or east winds—nay, even whilst the weather gets daily worse, and when the patient is exposed to it the chief part of the day. All these patients came daily to the hospital. Of course it is much better to keep the patient in a warm room."

"All but one of the twenty-five patients were benefited. In one case the improvement was very gradual, but there was evident temporary improvement after each inhalation. In twenty-one cases the average number of inhalations required was 9.4, and the average number of days was twelve before the patients were discharged cured. The greatest number of inhalations in one case was eighteen, and the smallest three. The case longest

undertreatment required twenty-four days; the shortest, four.

"In employing the ipecacuanha spray, in order to insure as far as possible only its topical effects, we were careful to direct the patient to spit out and even to rinse out the mouth at each pause in the administration, for a much larger quantity of the wine collects in the mouth than passes into the lungs. If this precaution is not adopted, some times enough is swallowed to excite nausea, and even vomiting, by which means the bronchial mucus is mechanically displaced, and, of course, in this way effects temporary improvement. Even when this precaution was observed, a protracted inhalation will excite nausea and sometimes vomiting by the absorption of the wine by the bronchial mucous membrane; though, strange to say, when thus induced, vomiting was long delayed, even for several hours—nay, sometimes not till the evening, though the inhalation was used in the morning. In the reported cases, however, improvement was not due to the nauseating effects of the spray, for we took care to avoid this contingency by administering a quantity inadequate to produce this result. The duration of each inhalation will depend on the amount of spray produced by each compression of the elastic ball, and on the susceptibility of the patient to the action of ipecacuanha. As a rule, the patient at first will bear from twenty squeezes of the spray without nausea, and will soon bear much more. After two or three squeezes especially on the commencement of the treatmen, we must pause a while. It is necessary to look at the patient's tongue and tell him to learn to depress it, for if the tongue is much arched it will hinder the passage of the spray to the lungs. It is a good plan to tell the patient to close his nose with his fingers, and to breathe deeply. The inhalation should be used at first daily, and, in bad cases, twice or thrice in the day; afterwards every other day suffices, and the interval may be gradually extended. If the ipecacuanha wine is diluted, then the spray must be used a longer time. In cold weather the wine should be warmed."

LEUCORRHŒA OF YOUNG GIRLS.

A Clinical Lecture by Prof. Bouchut, translated for the Detroit Medical Review by Dr. Edward W. Jenks.

We have before us now two cases of leucorrhœa, one a girl of ten years and the other a child of four. As this disease exceedingly disturbs mothers, who, in their ignorance of matters of life, cannot comprehend that organs on the road to development, and which they suppose are dormant and far from their period of physiological activity, can be diseased. I now purpose telling you the nature of this malady and its treatment.

The first case relates to a child ten years of age, ill for three weeks. Without any known cause or anterior disease this child was taken with itching, and a profuse vaginal discharge, which stained the linen green, the same as with women having blenorrhagia. The vulva is hot, its folds are filled with pus, and the opening is tumefied and of a dark wine color. We cannot see upon the mucous membrane either follicles or ulceration. Neither does pressure upon the hypogastrium or laterally upon the lips cause pus to be expelled from the vagina. The clitoris is red, swollen, and protrudes far beyond the labia majora. We find no taint of scrofula, but there are present eczema upon the head and pityria is upon the face. It is evident to me that this child possesses a herpetic diathesis. This is important to remember as a sufficient cause to account for the leucorrhœa.

The other child was for some days in a febrile state, for which there was no apparent cause. After this there was a leucorrhœa, followed by apthæ of the vulva, which became ulcerated. These ulcerations spread and became deeper, showing a particular form of gangrene of the vulva. This leucorrhœa results from want of care, and the bathing so indispensible in all acute maladies of young girls. These two cases differ essentially. The first patient is of a leucorrhœal diathesis. The second one has an inflammatory leucorrhœa, due to want of cleanliness.

We will discover these two causes in many cases of leucorrhœa, but they are not the only ones. It is necessary to add to these, criminal attempts against decency, which are very common, and which, by friction of the parts, engender simple inflammation, followed by a discharge. There may be also blenorrhagia, or syphilitic contamination, producing their specific effects. To these causes, if you add masturbation, which irritates the mucous membrane of the clitoris and vulva, or the thread worms of the rectum, which frequently find their way into the vagina, provoking itching and irritation of the mucous surface, you will learn what are the causes of leucorrhœa in young girls.

The most frequent cause is herpetism, or the herpetic diathesis. In acute diseases of children, where they are scrofulous and unclean, this disorder may follow with the most unhappy consequences. In effect, in typhoid fever a septicæmic malady, and in measles a virulent malady, one often sees the vulva filled with purulent mucus of a very irritating nature, and, if the children are not washed, there results a follicular vaginitis, followed by ulcerations, with red edges, and, at the bottom, a grayish pseudo-membrane, which resembles apthous exudations of the mouth. Later these ulcerations become phagedenic, extending in every direction, causing considerable loss of substance, destroying the vulva, perineum, and sometimes reaching into the anus. This is extensive molecular gangrene.

In other cases, under the follicular ulcer there is sudden engorgement in the cellular tissue, forming a small, hard lump, accompanied with tumefaction and redness of one lip; then a black spot appears, which extends rapidly, exhibiting veritable gangrene of the vulva. This sloughing

gangrene is almost always fatal. These varieties of leucorrhœa are the most grave and the least common, The others, connected with scrofula or herpetism, do not lead to such serious consequences; they last some weeks or months and disappear. Their nature is indicated by the diathesis of the children.

The seat of leucorrhœa in children differs absolutely from that of women or girls after puberty. While in the adult leucorrhœa is always vaginal or uterine, with children it is always vulvular, occupying only the external parts of the generative organs. It is the mucous membrane of the ostium vagina only which is affected. In the two children here exhibited the suppuration is in this locality, and does not extend into the vagina, thus proving the truth of my statement. The liquid secreted stains the linen green, is acrid and irritating, differing in abundance in different cases. It provokes a disagreeable pruritis, causing children to scratch themselves, and thus sometimes giving rise to the habit of masturbation. Further, this very irritating fluid may adhere to the fingers of children, if they are allowed to put them about the vulva. With the fingers thus soiled they may rub their eyes, producing grave purulent opthalmia; hence the necessity of putting gloves upon them, or long clothing fastened around the ankles.

After what I have told you concerning the leucorrhœa of young girls, and its varieties, you will observe that the treatment must differ, according to the presumed cause of the trouble. In leucorrhœa produced by the emigration of thread worm from the rectum into the vulva it would be well to wash the parts with carbolized water or baths of creasote, and put into the rectum suppositories of mercurial ointment.

In leucorrhœa of acute disease, lotions of water with aromatic wine may suffice, but, if there be follicular or phagedenic ulceration, an ointment composed of one part of coal tar to ten of lard will prove serviceable. If in place of the phagedenic ulcer there is a crust, it should be detached, and the wound sprinkled with powdered camphor. Now, for leucorrhœa caused by scrofula or herpetism it is necessary to give internally cod liver oil and the arseniate of soda:

R. Arseniate soda..... .....grs. ij.
Syr. simplicis..... ʒ iv.

Of this a teaspoonful morning and evening for children under seven years of age; above this age give two teaspoonfuls in connection with external treatment, as baths of a solution of carbonate of soda and sulphur baths. If the disease resists the treatment already pointed ou , then it would be well to paint the parts with a solution of nitrate of silver. The leucorrhœa never resists these combined means, and the alliance of external and internal treatment which I have mentioned suffices for triumphing over this malady.—*Annales de Gynecologie.*

CLINICAL LECTURE ON SCABIES.

Abstract of a lecture delivered at the Hospital of the University of Pennsylvania.

BY LOUIS A. DUHRING, M.D.

GENTLEMEN,—Before examining this patient we will obtain from him a few facts relative to the beginning of the complaint from which he suffers, and also some account of its course. He is an Englishman, healthy, and has never had any disease of the skin previous to that for which he now seeks relief.

When he landed in New York, six months ago, he was, to the best of his knowledge, perfectly well. He spent two nights in a boarding-house in that city, and then came to Philadelphia. Three weeks after his arrival here he first noticed an eruption on the left fore-arm, characterized by itching. This spread gradually from one point to another, until pretty much the entire body, with the exception of the face, palms of the hands, and soles of the feet, became involved. Lately the itching has been so severe as to keep him awake all night: indeed, he tells us he is often obliged to stupefy himself with liquor in order to gain a night's rest.

Such are the facts in the history of the case. Now, proceeding to examine our patient, we first observe that the disease is a chronic one. We do not need the history to acquaint us with this fact; any one who has had much experience in this class of cases would immediately perceive the disease to be non-acute. This patch, for instance, can easily be known to have existed some time. We have here numerous old scratch-marks, the result of long and habitual use of the nails. Let me remind you just here that the presence or absence of the evidences of scratching should always claim your attention in the examination of diseases of the skin. Such evidences will decide at once, whether the affection under consideration belongs to the class of itching or non-itching diseases. The case before us evidently belongs to the former; even such remote parts of the body as the integument covering the angles of the scapulæ, which are quite difficult to reach, have been attained by long practice on the part of our patient.

As to the localities affected, you will observe that though the disease extends pretty much over the entire body, yet there are certain parts where the process seems to have been more active, as evinced by the greater number of scratch-marks. The regions about the axillæ, for instance, have been very much scratched. Some of these marks are quite florid,—they are recent; others are darker and older. About the nates, the disease appears to have been particularly troublesome. We notice here that the corium has become considerably thickened, and many large pustules are scattered over it.

Along the thighs also, the scratch-marks are very numerous, and the skin is sprinkled over with crusts, not of dried pus, however, but of blood. We have here, also, broken hairs and torn follicles, from each of which a drop of blood has oozed.

All these appearances result from the scratching; and I dwell upon these marks because they play an important part in the history of the case. Before leaving this point, observe that the inside of each thigh presents the disease in a still more marked form. We have here pustules, scales, pigment-spots, and patches of infiltration, which will endure some time after all active symptoms of the disease have disappeared.

Taking a general view of the case as the patient stands before us, notice the peculiar arrangement of the eruption: plentiful in the axillæ and on the buttocks and abdomen, less so on other parts of the body, notably the sternum. On the palms of the hands and soles of the feet, as well as on the face, absolutely no trace of the affection can be discerned.

The differential diagnosis of the case lies between two diseases: simple eczema, and scabies or "the itch." These two affections are the only ones likely to assume the appearances here presented. Remember that when I speak of scabies, as "the itch," it is not merely an itching disease to which I allude, but one of a parasitic nature, dependent upon the irritation and inflammation produced by an insect, the acarus scabiei.

A single point shows us almost certainly which of these two diseases we have before us, and that is the arrangement of the eruption. On the one hand, we have it more marked over the axillæ, abdomen, buttocks, and thighs,—all parts or the body well protected with clothing. On the other hand, the eruption is very scanty over the sternum, and does not exist at all on the face, palms, and soles, all of which are localities either greatly exposed to external influences, or which, from their structure, are unfavorable to the morbid process.

In short, the eruption affects those parts of the body best suited to the unhindered development of the itch-insect, and we have before us a case of scabies. Were this eczema, we would have the eruption more irregularly distributed; eczema has no places of election. The diseases in appearance, however, resemble each other closely, and in fact the result of the irritation of the itch-insect is eczema of one form or another; but it is a result, and not the primary lesion. Cases of eczema papulosum are often mistaken for scabies, and the patients reported cured by internal treatment, etc.

The only reliable diagnosis, after all, is based upon the presence or absence of the itch-insect itself, the acarus scabiei, which must be carefully sought for in such parts of the skin, as it is most likely to be found in. One of these localities is the hand, and particularly the skin on the inside of the fingers. At this point the burrows in which the acarus lies are less likely to be torn open, and may also be seen more distinctly than elsewhere. When patients work in strong alkalies, acids, or the like, these burrows become destroyed, and are then very frequently not found or are altogether absent.

The burrows of the itch-mite are worthy of careful study. They are produced by the insect finding its way under the epidermis, and then making a canal or passage, which is seen upon the surface as an elevated line or ridge about a quarter of an inch long, usually dark-colored or black, owing to accumulations of dirt and foreign substances which are apt to collect upon the hands.

The burrows are about half a line in width, and vary in length; sometimes they are but a line or two, in other cases they are as much as half an inch long. They are found in greatest number, perhaps several or more, upon the insides of the fingers near the hand, where the skin is thinnist. Here the mites make their habitat, and are apt to remain undisturbed until they have deposited their eggs, when they are known to die in their burrows.

There are very few entire burrows on this man's hands, owing to the fact that the disease is chronic, and the long-continued scratching and tearing to which the skin has been subjected has caused them to become rubbed down, broken, torn, and scraped off, and finally, to a great degree, obliterated. Still, there are some left, and by carefully searching these the insect may be detected and picked out. We need not expect to find a dozen in this hand; we shall be fortunate if we find two or three.

In order to obtain the acarus, we take a needle, and, opening the closed end of the burrow, which is indicated by a black dot, and which is the point where the insect lies, we may be able, if dexterous, to lift it out upon the needle-point. The operation must be performed very carefully, otherwise the wrong end of the burrow may perhaps be picked, and a drop of serum exuding will swamp the acarus beyond all hope of recognition. The parasite, you must remember, is exceedingly small,—scarcely the one-thirtieth of an inch in diameter,—and of a color and transparency almost those of serum itself. You must be careful, therefore, I repeat, or you will almost certainly fail to obtain it.

It is the female acarus which burrows in the way I have described, in order to deposit its ova. The male insect crawls about over the surface of the skin, and may be detected with the aid of a lens by those who are more than usually fortunate. He is exceedingly difficult to find.

I will not give you at this time the treatment of scabies in general, but merely the plan which we shall pursue in the present instance, which is as follows:

Let me begin by advising you, whatever application it may be of which you make use, not to make it too strong. Were we to employ the officinal sulphur ointment, for instance, in this case, containing as it does four drachms of sulphur to the ounce of lard, we should make the patient's condition worse for the time than before, since an artificial irritation would in all probability be set up. He already has eczema from severe and long-continued irritation of the skin, and any strong application would only tend to aggravate the inflamed skin.

We shall, therefore, in the present instance, make use of the following formula:

℞ Flor. sulphuris.
Bals. Peruvian.. aa ʒ ii;
Adipis, ℥ iv.—M.

This ointment is to be thoroughly worked into the affected portions of the skin, every morning and evening for four days. If this has been thoroughly done the sabies itself will by that time be cured, and there will remain only the artificial eczema, produced by the presence of the acarus. This, the cause having been removed, will probably get well spontaneously, nothing more being needed than bathing. You must not expect, in a case like this, that all itching will cease the moment the disease is put an end to. The mere nervous excitability brought about by long-continued sleeplessness and irritation will not at once subside. We shall, however, expect that, when this patient appears before us a week hence, most of the itchiness shall have subsided, and that he shall enjoy a good night's rest.

It will be some time, however, before all trace of the eczematous eruption shall have disappeared and it may be necessary to hasten this result after a few days by such an ointment as the following, to be applied morning and night, after bathing:

℞ Acid. carbolic., gr. x;
Ung. zinci ox. benz., ℥ ii.—M.
—*Philadelphia Medical Times.*

SELECTED PRESCRIPTIONS.

FOR UTERINE NEURALGIA.

℞ Tinct. aconiti rad. (Fleming) ... ʒ iss.
Ammonii chloridi. ..... ʒ ij.
Ammonii iodidi ..... ʒ i.
Tinct. card. comp..... ʒ i.
Syrupi aurant..... ʒ iv.
Aquæ anisi, q. s. ad..... ℥ viij.

M. Sig. Teaspoonful every four hours. Also give, half an hour before each meal a teaspoonful of the syrup of the phosphates of, iron, ammonia, quinia and strychnia. This treatment seldom fails give relief after all other means have failed.

THE SOVEREIGN BALM FOR SYPHILIS.

℞. Hydrarg. iodidi vir ..... grs. xij.
Ext. cannabis ind..... grs. vi.
Ext. conii .... grs. xij.
Lupulinæ .... grs. xij.

M. Div. in pil. No. xij. Sig. One pill thrice a day.

VALUABLE FORMULA IN CEREBRO-SPINAL MENINGITIS

℞. Potassii bromidi ..... ʒ ij.
Fl. ext. ergot..... ʒ iij.
Tinct. belladonnæ ..... ʒ i.
Tinct. aconiti rad..... gtt xij.
Curaçao cordial, q. s. ad. ..... ℥ iij.

M. Sig. Dessertspoonful every three hours.

PRESCRIPTION FOR PUERPERAL CONVULSIONS.

℞. Potassii bromidi ..... ʒ i.
Chloral hydrat..... ʒ i.
Camphoræ..... grs. vi.
Tinct. card. comp..... ʒ vi.

M. Sig. Take a dessertspoonful every half hour until relieved.

A HINT IN GIVING IODIDE OF POTASSIUM.

A useful hint is revived in the *British Medical Journal*, by Mr. Joseph P. McSweeney. He says: "Sir James Paget was the first to call the attention of the medical profession to the following interesting fact—namely, that carbonate of ammonia greatly increases the therapeutic action of iodide of potassium. I have had extensive experience in the treatment of syphilis, and have tried it with the best results, and find that five grains of potassium, combined with three grains of carbonate of ammonia are equal to eight grains of the potassium salt administered in the ordinary way."

ETHER FOR TAPE-WORMS.

When the anæsthetic power of ether was first discovered, it was only proposed to use it on human beings to render surgical operations painless. Von Heyden, the merciful man who would not inflict pain on any living creature, employed it as long ago as 1830 for killing insects for his collection. Even worms are rendered dormant and helpless by its use. Prof. August Vegel now announces a new application of this anæsthesia for worms—its application to tape-worms. The ether is inclosed in a gelatin capsule and swallowed. The ether is vaporized in the stomach and the worm stupefied, it being then easily removed by any of the usual remedies, against which, when awake, the worm offers a strong resistance.

TO REMOVE DANDRUFF.

Glycerine..... .....1 ounce.
Rose water ....3 ounces.
Tincture of cantharides .....2 drachms.

THE TREATMENT OF PERTUSSIS BY INHALATION.

By J. Winthrop Spooner, M.D.

In the JOURNAL dated April 20, 1871, appeared an article by John J. Caldwell, M.D., of Brooklyn, N. Y., entitled "A New and Successful Treatment of Pertussis." The treatment recommended was the following:—

℞. Fl. ext. belladonnæ. M v. to x.;
Potass. bromid., ʒ i.;
Ammon. bromid., ʒ ij.;
Aquæ, ℥ ij. M.

Inhale one tablespoonful in the ordinary steam atomizer.

Several successful cases were reported, but since that date I have seen no report of cases treated in that way.

Feeling that we have in this method of treatment

a great addition to the therapeutics of a disease often distressing, and sometimes fatal in its results, I have been led to publish a few cases of my own treated in a similar manner. I am in the habit of using a tablespoonful of the above mixture and filling up the glass of the atomizer with water.

CASE I.—April 1st. A boy of 14 has had the disease for two weeks. The cough has been severe and the whoop well marked. Vomits after nearly every meal. The next record is April 5th, which is as follows: Patient has been at the office daily and used the atomizer. His cough has been less since the first inhalation, and he has whooped but once. The vomiting has ceased, and there is present but a slight cough, which is not distressing.

CASES II. and III. were two children (brother and sister) aged 15 and 12. Well-marked symptoms of whooping cough had been present for two weeks. The same remedy was used for four days, under my supervision, with decided abatement of symptoms. As they were improving, I lent them a hand atomizer, which I afterwards understood they used only for a day or two. The cough lingered for several weeks in both cases, although the whoop was never well marked after the use of the atomizer. In fact, during the latter period, the disease seemed to be a simple bronchitis and nasal catarrh, the result of a series of colds, as the patients were very imprudent.

CASE IV.—A child of 3 years had a cough, with febrile symptoms for ten days. Yesterday, for the first time, had a decided whoop. Vomited every meal to-day. Face is swollen, eyes congested, and, this morning, lids adhered from excessive secretion. The atomizer was used twice daily. Improvement commenced at once. From that date there was no vomiting, countenance resumed a natural appearance, and at the close of a week the whoop had ceased, and in less than a fortnight not the least trace of the disease was present.

CASES V., VI. and VII. were children of one family, aged eight, five and three years respectively. The disease had existed for about two weeks; the symptoms were mild, but sufficient for diagnosis. Treatment was commenced on June 27th. On June 30th, I saw them again, and there was a decided improvement. At the close of one week from the commencement of treatment they were well.

CASE VIII. happened at the same time with the preceding three, and the history was similar.

CASE IX.—A child of 2 years. I saw her first, July 20th. She whooped for the first time that day. On account of her age, there was difficulty in administering the remedy thoroughly, and perhaps it was on that account that for the first few days there was no perceptible improvement. However, the treatment was continued, and, by the 26th, the symptoms had much abated; and, by the 30th, the patient was well. A little syrup of squills and tolu was used in this case, as a palliative, in the first few days, and this is the only case in which any treatment but the inhalation was used.

CASES X. and XI. were a little girl of seven and her mother. With the former, the cough and whoop had been present for four weeks, and the mother had coughed for two weeks. The health of these patients was delicate, being predisposed to pulmonary disease, and a sister of the lady had died of phthisis, following pertussis, it was said. In both these cases, although the urgent symptoms were relieved, that is, the vomiting ceased and the cough and whoop became much less frequent under treatment, yet the disease went through its regular course in a mild form.

This, then, is the result of my treatment of pertussis by inhalation. When the disease is at all severe, I use the atomizer twice daily until the urgency of the symptoms is relieved, and then continue it once daily until the cough has entirely disappeared. In some cases, I have somewhat varied the proportion of the ingredients, but have made no essential departure from the formula given.—*Boston Medical and Surgical Journal.*

QUININE IN PERTUSSIS.

By JOHN W. KEATING, M.D.

Believing that those more fortunate members of the profession who are placed by circumstances in a position to note the action of remedies in the treatment of epidemic forms of disease should make public the results of their investigations, I beg leave to add my few drops to the great river of experience.

In the early summer months of this year, while resident physician in the children's ward of the Philadelphia Hospital, I had occasion to see an epidemic of measles and whooping-cough, which diseases occurred at the same time and ran their course together. Owing to this fact, and also that, as all know, the children are none of the strongest, the mortality was rather large,—forty per cent. I was much interested at this time in the controversy as to the possibility, by medicinal means, of cutting short an attack of whooping-cough, and I availed myself of the uncomplicated cases to test the remedies proposed.

From the first, I found quinine to be the most reliable.

The number of cases was large, and, as is usual in a hospital, the number of nurses small, so that I was obliged to abandon the idea of noting the frequency of the paroxysms in every case, and could only limit myself to the few who had their mothers constantly with them, and where the intellectual capacity of the latter enabled them to interest themselves in my experiments.

As an example, I shall narrate one case which was particularly interesting, as the disease was extremely severe, and was uncomplicated. This child was fifteen months old, had been sleeping with its mother, who was an assistant-nurse, in the room with the other children, most of whom had both whooping-cough and measles, and took whooping-cough, the attack of measles being deferred till a later period.

For twenty-four hours the mother carefully noted, by pin-holes in a card, the number of paroxysms. I

then ordered one-half grain of quinine every hour during the day, the same dose to be given every two hours during the night. At the end of twenty-four hours I again had the "coughing-spells" noted. They had diminished in frequency exactly *one-half*. This experiment was often repeated, with the same results, until the end of a week, at which time the paroxysms were very few, but had not diminished in severity.

As an example of the same result in an older child, I may mention the case of a girl about fifteen years of age, who came to Philadelphia suffering from a severe attack of pertussis. The child was particularly annoyed by the severe nocturnal coughing-spells, which nothing seemed to relieve. I placed her upon the quinine-treatment, and the result was really wonderful; I may say that after the first day she coughed but little, and in less than two weeks the disease had entirely disappeared.

In order to avoid repetition, the conclusions which I arrived at are given, as follows:

1. That in most cases quinine, given in solution, will diminish the frequency of the paroxysms of whooping-cough, provided it be given in sufficiently large doses.

2. That quinine can be given to children in proportionally much larger doses than to adults, but that in very young infants it is contra-indicated, as it always causes vomiting.

3. That carbonate of ammonium will in almost all cases relieve the severity of the paroxysms, and consequently should be given in conjunction with quinine when this indication for its use exists.

4. That the dose of quinine for a child of two years should be at least ten grains daily, in divided doses: it should be watched carefully, and increased if it produces no effect. For a child of twelve years begin with fifteen grains daily, and note the effect of each dose. The drug should be frequently discontinued for a day or so, at it seems to loose its effect.

I merely offer this as the result of observation in one epidemic, for I know that the value of this treatment is acknowledged by some and denied by others. —*Philadelphia Medical Times.*

A SAFE AND READY METHOD FOR OVERCOMING INTESTINAL OBSTRUCTIONS.—

Dr. Robert Battey (*Atlanta Medical Journal*, June, 1874) shows that fluid may be entered at the anus, and made to permeate the entire intestinal canal, pass into the stomach, and be vomited from this organ. His proofs are: cases in which he has accomplished this end in the living subject, and instances in which he has passed water *post-mortem*, through the entire intestinal tract. The doctor gives illustrations of the value of these injections in relieving various intestinal obstructions. He thinks that when made by a person with common sense, with a rubber syringe, no harm will result. The amount of water necessary to be injected will vary from fifteen to twenty-four pints.

ON EXAMINATION OF THE HEART

Dr. G. W. Balfour, in the Edinburgh *Medical Journal* remarks:—

From the formation and position of the heart it is obvious that, though we can and may percuss out the whole of the cardiac dullness, this is quite unnecessary; it is only of importance to ascertain its greatest extent of dullness vertically and transversely. Increase of the vertical dullness rarely indicates any alteration in the size of the heart itself, but is usually either due to hepatic enlargement, readily ascertianed by an extension of these exploratory methods to the liver itself, pericardiac effusion—the former dullness as a rule, extending below the sixth rib, the latter above the third; while a simple change of position of the heart, which may arise from various causes, is indicated by a transference of the normal dullness upward or downward, without any change in its extent. The apex-beat except in certain abnormal conditions, is, from the formation of the heart the part which extends furthest to to the left, and being, as a rule, perceptible to the touch, only requires to be percussed out in those exceptional circumstances where the true apex beats beneath a rib, and not in an interspace. The right auricle is, of course, that part of the heart which extends furthest to the right, and being extremely dilatable, and readily influenced by any obstacles to the onward flow of the blood, transverse dullness about the level of the fourth rib comes to be an important indication of some obstacle to that onward flow, and therefore, of enlargement of the heart chiefly in its auricular region. These therefore are the chief points in regard to which we look for important information from the percussion of the cardiac dullness. Increase of dullness above the third rib indicates, as a rule pericardiac effusion. Increase of the transverse dullness at the level of the fourth indicates obstruction to the circulation. If the apex-beat be displaced to the left and downward, the obstruction is probably aortic, and has primarily influenced the lett ventricle; if the apex-beat be not displaced downward, the obstruction is either mitral or pulmonary in its origin.

TREATMENT OF TYPHOID FEVER BY FATTY INUNCTION.

Dr. Löwinson (*Berlin. Klin. Wochenschrift*, 1873, No. 28) has substituted for cold baths, where they are contra-indicated or borne badly, general inunction with bacon, a method which he has employed with success for three years. He has ascertained that, an hour after the inunction, the temperature falls at least 1.8° or 2.7° Fahr., and that the fall is never less than half a degree. He has used the inunction twice a day for one or two weeks, washing the skin every third or fourth day with eau-de-Cologne, which produces rapid evaporation. Since he has followed this

treatment, he has not lost one patient. Schneemann, of Hanover, was the first who pointed out that inunctions with bacon produced a decrease of temperature. It has been proved by experiment that animals can be made to perish from cold by this method.—*London Med. Record* Dec. 17.

TREATMENT OF CYSTIC GOITRE BY EVACUATION AND INJECTION OF THE SOLUTION OF THE PERCHLORIDE OF IRON.

By J. Ewing Mears, M.D.,

Surgeon to the St. Mary's Hospital.

In the London *Lancet* of May 11, 1872, Dr. Morell Mackenzie reported a number of cases of cystic bronchocele which he had treated with eminent success by tapping and injecting with the solution of the perchloride of iron. As stated in the article, the cysts, by this method of treatment, were converted into chronic abscesses, and it was only necessary to conduct these to a termination in order to effect the cure of the bronchocele. The operation is exceedingly simple, and is described as follows. The cyst is first emptied, the trocar being introduced at its most dependent point, through the canula, which is allowed to remain, a drachm or more (the quantity being determined by the size of the cyst) of the solution of the perchloride of iron is injected, and the opening of the canula closed by a piece of cork or wood, cut to the proper size. The solution of iron is permitted to remain in the cyst for three or four days, according to the degree of inflammation which it is thought necessary to produce. At the end of the prescribed time it is withdrawn, the canula, with the opening closed, being retained in position. Poultices of linseed meal are now applied over the cyst, and when suppuration is fully established the plug in the canula is removed, and free drainage is secured. The canula is not removed until the discharge is limited in amount and its consistence such as to permit its easy exit through the wound. The duration of treatment was reported to vary from three weeks to four months.

Having under my care, at the time of reading this article, a patient who was suffering from bronchocele, I determined to treat it according to the plan so successfully employed by Dr. Mackenzie. Although I was not able, as will be seen, to follow to the letter the instructions given, still the success was complete, and I feel it a duty to report the case which so entirely confirms the plan of Dr. Mackenzie. It gives to the surgeon a method of treatment in these cases, which is at once simple and devoid of danger.

The patient, a female, aged twenty-eight years, first noticed the tumor in the neck some twelve years ago. Its growth had been very slow, and for a period of four years it seemed to remain stationary. During the last year it had enlarged in size until it produced quite a deformity, and at times interfered with swallowing. It was at the time of operation, the size of a large-sized hen's egg, being developed rather more to the left of the median line of the neck. It was freely movable, rising and falling with the movements of the larynx and trachea in deglutition. Various plans of treatment had been employed to effect its removal. I had already tried simple tapping and the internal administration of sorbefacient remedies, with also local applications.

Owing to the failure to obtain the proper form of trocar and canula, I was unable to secure the latter in the cyst after I had tapped it, and injected a drachm of the solution of the perchloride of iron. The injection was, however, entirely retained by the closure of the puncture made by the small trocar. On the third day symptoms of inflammation appeared, and the neck was quite swollen; slight febrile movement was also present. On the fourth day I reopened the cyst, from which there escaped a small quantity of a viscid, tarry substance. Poultices were now applied, and in a few days suppuration was established, the pus escaping through the puncture, which was kept open by the use of the probe. In six weeks the discharge ceased and the opening closed, leaving but a slight swelling over the site of the tumor. Three months after, when I saw the patient, the swelling had disappeared, and a small cicatrix marked the position of the cyst.

Dr. Mackenzie has reported to the Clinical Society of London the results of this plan of treatment in sixty-eight cases of cystic goitre and nineteen of the fibro-cystic variety. Of the cystic form fifty-four were cured, eleven did not require treatment, and three were in subjects on whom, by reason of cardiac disease, it was thought undesirable to operate. The results in the fibro-cystic varieties were equally favorable. The advantages of this line of treatment are set forth in several clearly stated conclusions, at which Dr. M. had arrived from a study of his cases. The hæmostatic property of the iron is alluded to as of value in these cases. The frequent occurrence of sloughing after the injection of iodine renders this remedy dangerous, and it should therefore not be employed.—*Medical Times.*

SOME PECULIARITIES OF PNEUMONIA IN EARLY LIFE. By Dr. Farquharson.

After some preliminary remarks, the author stated that the pure lobar pneumonia of children does not differ so much from that of adults as we might suppose, considering the very trivial causes which light up acute fever in early life. Although the beginning is more insidious, the course is much the same, the temperature seldom exceeding 105°, and defervescence taking place from the sixth to the seventh day. The pain, however, is often so decidedly situated in the abdomen as even to simulate peritonitis; the cough is more irritable, and the dyspnœa frequently out of all proportion to the extent of lung tissue involved; it being suggested that this may sometimes be of a nervous character, as in hysterical women. The most marked distinctive peculiarity, however, is the tendency of the inflammation to attack the upper lobes by preference, and even

when it reigns elsewere it almost invariably creeps insidiously upwards, without rise of temperature or other special symptom. Whether this peculiarity of site necessitated a lowering of type, as in the adult, the author has been unable to decide. Coming to the physical signs, it was observed that the true crepitant rale is seldom observed, that bronchial rasping is the first stethoscopic indication, and that the dulness to percussion is attended by a peculiarly well-marked tympanitic percussion note often intervening between the healthy sound and absolute dulness, and differs from the same symptom in the adult by re-appearing during the stage of resolution. After various other points had been passed in review, and a word said on prognosis, the author referred briefly to treatment, and dwelt specially on the value of poultices in restricting the movements of the lung, and giving rest to the affected tissues.

Dr. W. H. DAY congratulated Dr. Farquharson on his interesting and valuable contribution to the pathology of pneumonia in children. He said no disease was more variable in its extent and severity. The pulse and respiration bore no corresponding relation to each other. He had lately seen a case of acute pneumonia in a boy, æt. 10, where the lung rapidly passed into consolidation from base to apex, without cough or expectoration, the pulse reaching 140 and the respiration never exceeding 30 per minute. Not the faintest trace of breathing could be detected in the affected lung. The heart's sounds were very audible throughout the left chest. There had been considerable abdominal pain, which was due to the extension of pleurisy on the left side. In some cases of this kind the abdominal symptoms have resembled and been even mistaken for peritonitis. Dr. DAY thought pneumonia was a disease that often recovered under rest and hygienic treatment alone, without any aid from drugs. No two cases were suited for the same treatment—there were always prominent points of difference in every case. Whatever plan was adopted, the constitutional treatment should be carefully kept in view for pneumonia of the apices of the lungs was generally observed in tubercular subjects.

Dr. GODSON drew attention to the frequency of the pain being referred to a distant part which was apt to mislead in the absence of cough or pains in the chest as had occurred to him lately in the treatment of a boy suffering from commencing pneumonia where the only complaint was acute pain in the left hypochondrium.

Dr. MILNER FOTHERGILL said that, while admiring the paper as a whole, he would much have liked to have heard some further remarks on treatment from Dr. Farquharson. The treatment of disease in children was one of the divisions of practical medicine with which the profession was really least familiar. Some avoided antimony unduly, while others used it freely—perhaps too freely. Children do not stand a depressing treatment well, and, on the other hand, it is often difficult to make the friends see the nearly impending necessity for a stimulating plan of treatment by which threatening perils may be averted, or to overcome their fear of increasing the existing inflammation. Consequently the treatment of infantile disease had become little more than the name. It was very desirable that some more definite ideas should exist as to the principles of treatment in diseases of children.

FORMULÆ FOR THE TROUBLESOME COUGH OF PHTHISIS.

℞. Potassii bromidi,
Potassæ chloratis,
Ammoniæ muriatis, } aa ʒ iss.
Syrup. tolutani, ʒ iv. M.

Tablespoonful every two or three hours.

℞. Tincturæ opii camphoratæ, ʒ i.
" belladonnæ, ʒ i.;
" hyoscyami, ʒ ij.;
Spiritus lavendulæ comp., ℥ i. M.

Ten drops on a lump of loaf sugar every hour until cough is relieved.—*Charity Hospital, New York.*

FOR CONSTIPATION.

℞. Aloës Socotrinæ, gr. xv.
Ext. anthemidis, gr. xv.
Ext. rhei, ʒ ss.
Zingiberis pulv., gr. viii..—M.

Divide into twenty pills; one or more at night as required.—*Medical Times.*

SOOTHING APPLICATION IN HERPES ZOSTER.

℞. Collodion, ℥ j ;
Morphiæ muriatis, gr. viij. M.

To be painted over the vesicles without breaking them open.—*Medical Times.*

FORMULA FOR HAY FEVER.

℞. Potassæ chloratis, gr. xx.;
Morphiæ sulphatis, gr. iv.
Aquæ destillatæ, ℥ ij. M.

This mixture, to be used by means of the atomizer is recommended by Dr. Hoover as giving immediate relief, and producing a complete cure within a few days.—*American Journal of the Medical Sciences.*

TOPICAL APPLICATION IN PAINFUL DENTITION.

℞. Syrup of tamarinds, ʒ ijss.;
Infusion of saffron, ʒ ij ;
Honey, ʒ ijss.
Tinct. (essence) of vanilla, gtt. iv. M.

Rub gently over the gums with the finger or rag.

An application of a similar character is the following:—

℞. Saffron (powdered), 4 to 6 grs.;
Honey, 2 to 3 drachms. M.

Glycerine may be substituted for the honey.

HÆMORRHOIDS.

Dr. Wm. Colles, Dublin, lately injected twenty minims of tincture of perchloride of iron into each internal hæmorrhoidal tumor. No traces could be

found some weeks afterward, by speculum, except nodules, of the size of shrivelled currant. The case had resisted Dr. Houston's application of fuming nitric acid.—*British Medical Journal*, June 27, 1874, p. 849.

A SIMPLE METHOD OF REDUCING THE DISLOCATION OF THE FOREARM BACKWARDS.

Dr. Alexander Murray writes to the *New York Medical Record* of July 1, 1874, that he has reduced five cases of the above-mentioned dislocation by the method to be described.

Supposing the dislocated arm to be the left. Dr. Murray takes his position at the outside of the dislocated arm, and places the palm of his right hand to the patient's left, dove-tailing his fingers between each of the patient's. In this way, a firm hold is secured for extension. He then places his elbow as a fulcrum and for counter-extension on the forearm in front and against the lower end of the humerus, and by a steady pressure downwardsand backwards, and at the same time flexing the forearm towards the shoulder, in a few minutes the luxated bones slip into their natural places. Other dislocations of the elbow can be reduced by the same method.

TREATMENT OF PERTUSSIS.

John J. Caldwell, M.D., Brooklyn, N.Y., says in the Boston *Medical and Surgical Journal*:

My treatment of whooping cough may, or may not, be entirely new to the profession, viz., local medication by the spray atomizer; my favorite medicinal agents being bromide of ammonium and of potassium, together with liquid preparation of belladonna. Believing in Niemeyer's views of the pathology of this disease, "that whooping cough is a catarrh of the respiratory mucous membrane, combined with intense hyperæsthesia of the air passages," I made my medication directly to the parts affected, and the results have been so satisfactory and rapid that I venture to submit the following cases for your journal:

Cases I. and II. were my little daughters, aged respectively four and two years. They contracted the disease in July, 1869, it being at that time prevalent in our city, and in their cases the malady was decided and distressing. After exhibiting the usual remedies with little or no relief, I resorted to the above treatment, as an experiment. Getting up steam and placing my little ones upon my knee, in such a position that the spray should play right into the face; as a natural consequence they began crying, and that was just what I expected, and what I most desired, for the deep inspirations would carry the bromides and belladonna home to the local trouble. My formula is as follows:

R Ext. belladon. fld. gtts. v. to x.
Potass. bromid., ʒ i.
Ammon. bromid., ʒ j.
Aquæ distil., ʒ ij.
M. Ft. solutio.

Of this we use a tablespoonful at each application.

July 11th.—Children much better; the intermissions of greater space. Made another application.

14th—Attacks very mild; scarcely any whoop. Continued treatment.

16th.—Whoop and spasmodic action gone with a slight cough, which passed away in a few days.

Aug. 24th—Was called across the street to see my neighbor's children, three in number; found them suffering from the same affection. The father informed me the distress was so great and constant that the children could not rest, and were becoming very weak and emaciated; that their physician did not relieve them, and that, as the weather was so oppressive, he felt fearful for their lives. I administered the spray treatment to them in turn, while they were sitting upon the father's knee, as before mentioned. They called on the following succeeding days, viz., 25th, 26th, 27th and 28th, and on the first of September when I discharged them cured. Sept. 9th, Mrs. McG. called at the office with her little son, æt. 2 years afflicted in the same manner. After three or four applications we had similar happy results.

TOPICAL APPLICATIONS IN OTORRHŒA.

M. Ménière in a clinical lecture on otorrhœa gives the following formulæ as convenient and useful in many cases. Although they cannot always be expected to exercise a curative influence, yet joined to appropriate internal remedies they are in a high degree serviceable.

In "earache" one or two leeches are to be applied behind the ear, which may afterwards be covered with a poultice sprinkled with laudanum. At the same time two or three drops of the following solution may be dropped into the external meatus:

R Aconitiæ, gr. i;
Aquæ, fʒ v.—M.

This solution gives better results than laudanum, chloroform, etc., so frequently used. Should the pain be intense, general anodynes may be employed. In chronic otorrhœa the external meatus should be kept thoroughly clean by frequent injections of tepid water, and may in addition be painted once a day with the following solution:

R Acid. carbolic., gr. i;
Glycerin., ʒ i.—M.

This solution acts very satisfactorily in modifying the character of the secretion; it is sometimes necessary to increase the proportion of carbolic acid. A ten per cent. solution of nirate of silver painted upon the internal meatus will often serve a similar purpose. M. Ménière frequently employs the following solution in cases of chornic discharge from the ear. It has the advantage that the patient can apply it himself:

R Zinci sulph., gr. iv;
Glycerin., fʒ ii;
Aquæ, f vi.—M.

Three to six drops are allowed to fall into the ear, which has previously been thoroughly cleansed with

tepid water. The head is to be retained in the inclined position from eight to twelve minutes.

The following solution may be used when great vascularity of the bottom of the ear exists, even where there is perforation of the tympanum

℞ Plumbi acetat., gr. ss. ad i ;
Aquæ, f℥ ss.—M.

SULPHATE OF CADMIUM IN BLENNORRHAGIA.

M. Gazeau recommends injections of this salt instead of those of sulphate of zinc, on account of its more highly stimulating and astringent qualities. In the acute stage the injection may be made of the strength of one-half grain to the ounce of water, to be used every two hours. Copaiba may be administered for the first few days, and cases are frequently cured in five or six days. In chronic blennorrhagia the following combination should be used :

℞ Cadmii sulph., gr. xvi ;
Bismuth. subnit., gr vss ;
Aq. dest., ℥ iiiss.—M.

Sig.—Inject after each urination.

THE USE OF THE TOW PESSARY.

Dr. Martin says, in the British *Medical Journal* :—

In August, 1873, Mrs. A. requested me to attend her. She complained at that time of great pain across her loins and a bearing down of the womb. Upon inquiry, she informed me that she had had a family ; that her last confinement was a tedious one, requiring the use of instruments; and that all her former cases had been good ones, requiring but little attention from her medical attendant. Upon examination, I found the uterus a little extruded, being easily returned, but at once extruded after the removal of the fingers from the vagina. I advised her to rest in bed or upon her couch for the time being. On the morrow I called to see her again, and for the want of a proper pessary, I placed a quantity of tow, covered with a piece of well-greased lint, within the vagina, having previously returned the uterus to its proper position. I called again the third day, and found my patient much better, almost free from pain, and no extrusion of the uterus. I removed the pessary, and replaced it by a fresh one made in the same way as the first. After the lapse of three or four days, I again removed the tow, replacing it this time by a mass shaped after the manner of the oval boxwood pessary, covered with gutta percha tissue in place of the lint. This I allowed to remain for four or five days, requesting my patient to try to remove it herself if it should cause any pain. During the time she was wearing the pessary, I advised her to walk as little as possible, and to rest upon her couch most of the day. To regulate the bowels I gave one or two compound rhubarb pills at bedtime occasionally, and as a tonic, a little quinine and iron three or four times daily. I continued this treatment for a few weeks, to the great relief of my patient. She now goes about her duties as a housewife with ease, at times only feeling a little pain across her back, but no sign of any prolapse. Should a similar case come under my care, I shall adopt the same plan of treatment.

TANNATE OF QUININE IN CHRONIC ALBUMINURIA

Bouchardat (*L'Abeille Méd.*, July 6) says, "I am in the habit of employing the sulphate of quinine in chronic albuminuria according to the method of Dr. Devouves, and occasionally with un-hoped for success. The dose I employ is eight grains, in a cup of strong coffee, three times a day. This is continued for six days, and at the end of that time scammony or some similar purgative is administered. After one or two days of rest the patient is again placed on the use of quinine ; and I have frequently continued this treatment for more than a year. The food of course should, during this treatment, be highly nutritious. Lately I have been substituting the tannate of quinine for the sulphate, in doses of ten to twenty grains, three times in twenty-four hours, given in a similar manner. The digestive apparatus supports the tannate better than the sulphate." *Medical Times.*

GUARANA IN CHRONIC RHEUMATISM

Mr. E. A. Rawson states (*Irish Hospital Gazette* April 15, 1874) that when suffering severely from lumbago, and other remedies failing, he tried guarana as an experiment. He took fifteen grains in hot water, with cream and sugar, and experienced entire relief from pain for twenty-four hours. When the lumbago returned, he took another dose with the same result. "I gradually," he says, "increased the dose to forty grains, and took it regularly once a day for about a week. The lumbago disappeared. I gave up the guarana, and in a few days the pain in the back returned. A forty-grain dose removed it, and it did not return for several days afterwards. Now, whenever it does, I have my remedy at hand. During the last month I have experimented largely with guarana on a variety of patients, rich and poor. The results vary. When the pain is acute, coming on with sharp stings, guarana acts like magic; when it is of a dull, aching character, the drug is slower in its action, and several doses must be taken before any decided benefit can be perceived.

"I have come to the following conclusions, viz. : that whenever the fibrous envelopes of nerves, the aponeurotic sheath of muscles, the fasciæ or tendons, are the parts affected, guarana gives, if not instantaneous, at least very immediate relief, which will last from twelve to twenty-four hours; and I confidently expect that perseverance in the use of the drug, gradually increasing the dose up to forty grains, will entirely remove any of the above-mentioned kinds of rheumatism.

"Of the good effects of guarana on nervous hemicrania there is no doubt; and I trust that it will prove in other hands as valuable against rheumatism as it has in mine."

THE TREATMENT OF VENEREAL BUBOES.

Sauszinski (*Centralblatt fur Chirurgie*, No. 6, 1874) has adopted the method of opening buboes by a small perforation, as was advised by Ricord, and later by Zeissel, and has tried it in eighty-two cases of this complication of venereal disease. The bubo is opened with a narrow bistoury, the pus is pressed out through the wound, and it is then dressed with a graduated compress moistened with lead water, over which a small sack filled with sand is laid. The whole dressing is then fastened by means of a Spica bandage, and the patient is confined to his bed for the first few days. At first the compress is renewed twice during the day, but later, when suppuration has diminished, only once, the wound being washed with warm water at each dressing. The sack of sand is used until the edges of the wound become attached to the tissues beneath, when the dressing is changed to charpie and adhesive strips. The advantages claimed for this method of treatment over that by free incision are that the risks of having distinctive ulcerative processes in the wound are much less, and the time needed for its closure is shortened from forty-nine to twenty-eight days.— *Philadelphia Medical Times.*

PHOSPHORUS HYPODERMICALLY.

In Dr. H. C. Wood's wards in the Philadelphia Hospital phosphorus has been given hypodermically in a number of cases; two to three drops of the oleum phosphoratum (Prus. Pharm.) being given in eight to ten drops of glycerin. No serious local irritation was produced in any instance.

IODINE CAUSTIC

Is prepared by dissolving four grammes of iodine in eight grammes of glycerine. It is used in lupus by applying it once every other day, and covering the parts with gutta-percha. This treatment is continued for several weeks.

REMEDY FOR TOOTHACHE.

℞. Carbolic acid, saturated solution.
Hydrate of chloral, saturated solution.
Camphorated tincture of opium.
Fluid extract of aconite aa fl. ʒ j.
Oil of peppermint fl. ʒ ss. M.

Apply by saturating a pledget of cotton (or preferably a small piece of sponge), and pack closely into the cavity of the decayed tooth.—*Dental Cosmos.*

ANTI-CANCEROUS SOLUTION (Giorddans.)

℞ Acid. citric., ʒ i :
Aquæ destillat., ʒ i ʒ ii.

M.—Pieces of charpie soaked in this solution and laid upon cancerous ulcerations act as a detergent and delay the progress of the disease.

Dr. EBSTEIN recommends the use of atropia in salivation. In his hands one-fiftieth grain daily, increased in the course of eight days to one-twelfth grain internally, had a decided effect in lessening salivation in a case of hemiplegia. Hypodermic injections of the same drug in the region of the neck had a still more favorable effect.

VOMITING CONTROLLED BY TOBACCO-SMOKE.

A young girl not pregnant, suffering from severe and uncontrollable vomiting, under Dr. Beaumetz's care at the Hôtel-Dieu, was, after the ineffectual trial of various remedies, ordered to smoke a cigarette after each meal. This, so long as its use was persisted in, seemed to check the vomiting entirely.

TREATMENT OF HOOPING-COUGH.—

Wild claims that he can cure every case of hooping cough within eight days by the following tteatment: The patient isnot to leave room, and at every access of coughing is to before his mouth a small piece of cloth folded several times, and wet with a teaspoonful of the following solution: ether, 60 parts; chloroform, 30 parts; turpentine, 1 parts.—*Deutsches Archiv. f. Kiln. Med. Allg Wien Med. Ztg.*, 45, 1874.

THE CANADA MEDICAL RECORD
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MONTREAL, JANUARY, 1874.

WESTERN HOSPITAL, MONTREAL.

Within the past year and a half we have more than once alluded to a project which was on foot to establish in the western portion of Montreal a new hospital, to be built with the latest improvements and after the most improved models. Like nearly all new movements, its inception met with many difficulties, and, we regret to say, with much opposition from some who seem to imagine that they have special license to run the whole charitable machinery in Montreal. Its promoters, however, were not discouraged; on the contrary, believing that the proposed charity was a needful one, they quietly worked

away, and when its opponents thought they had smothered its birth, it suddenly came before the public with the report and the subscription list, both of which we publish below. On the 29th of December last, a meeting of the Governors and Subscribers was held in the Mechanics Hall, Major H. Mills the President of the Corporation in the chair. Dr. Wilkins having been appointed on the out-door staff of the Montreal General Hospital, and having resigned his position of Secretary Mr. James Coristine was elected in his stead. Mr. Coristine read the report of the Committee appointed to secure a sight for the hospital, which is as follows:

"Messrs. William Workman and James Coristine, in pursuance of the resolution appointing them a committee to purchase a site for the Western Hospital, waited on Mr. O. W. Stanton, land agent, and acquired by purchase the block of land forming the north-east corner of Dorchester street and Atwater avenue, with a surface of 79,436 square feet, for the sum of $30,300, an abatement of $200 on the original price.

The conditions of payment: $5,300 cash on passing the deed, $7,000 one year later, and the balance of $18,000 in five years, interest payable half yearly, 7 per cent., the vendor Robert Hamilton, Esq., of Quebec, agreeing in the sale to restrict the hypotheque to a fixed sum per superficial foot, 40 cents on the portion fronting on Atwater avenue and Dorchester street, and extending back 120 feet; on the remainder 20 cents per superficial foot.

During the absence from Montreal of Mr. Coristine, the deed was presented by the vendor for completion to Mr. Workman, who generously advanced the first instalment of $5,300, besides the smaller necessary disbursements, and has since held the land in trust for our Corporation.

The site is peculiarly adapted for the purpose; a somewhat irregular square block of land in a most salubrious position, bounded on the south by Dorchester street; on the east by a street 60 feet wide; on the west by Atwater avenue, 100 feet wide, and on the north by a new park from which it is separated only by a street.

The aspect towards the mountain will be unobstructed and unbroken in the future, as it is now which is believed to be equivalent to a site of three fold the surface of our property on a less favoured spot, as we enjoy without cost a large open space, which has lately been laid out and planted with trees, and in a short time will be very attractive.

Atwater avenue, 100 feet wide, which forms the western boundary, extends in a straight line to the river, piercing the future manufacturing centre of Montreal, is close of access to the canal, railway yards and workshops, where occur the largest percentage of accidents (mostly fractures and wounds) treated in our Hospitals. Owing to the avenue being in a direct line, the distance to the manufacturing centre is inconsiderable, an important feature, as prompt treatment, owing to the short distance, will often save patients much suffering. The approach for the greater number of patients will be over that highway when completed, which will rise with a gradual incline from the lower level of St. Antoine street, passing under Dorchester street, till the higher level is reached beyond.

The facilities for drainage are exceptionally excellent, as the large main sewer for the high levels of the western part of the city is by way of Atwater avenue, dipping with a considerable decline from the high ground of Dorchester street to the lower plateau, providing an exemption from the poisonous gases generated by stagnant sewerage. The land acquired is ample for the erection of six model pavillion hospitals or hospital wings, self-contained, with accommodation for three hundred patients. The wings would vary from 80 to 100 feet in length by a width of about 40 feet, three stories, including Mansard roof, ceilings high, to allow plenty o breathing space; each wing well lighted withf windows on the four sides, the buildings at least 75 feet apart, in order that pure air and sunshine shall reach every part.

The hospital will be a great amelioration for reasons stated, and will meet a want daily becoming more urgent on account of the rapid growth of the city, particularly westward.

Thirty years ago, with a population of less than 40,000, this city had two General Hospitals; with a present population of 130,000, we have but two, one of which has been rebuilt on a larger scale and fine site; the other occupies the original site, somewhat enlarged, but scarcely modernised, notwithstanding which it is fearfully overcrowded, which prevents a proper separation of diseases, and has occasionally resulted in the death of persons visiting it tor the treatment of trifling ailment by contracting fatal contagion.

T. M. Taylor, Esq., in moving the adoption of the report, referred to the great work done by that noble charity, the Montreal General Hospital, which, though venerable in years, was still as vigorous as ever, and capable of doing still a noble work in the

future. He felt, nevertheless, in view of the large increase within the last few years, particularly westward, and a probably still greater increase in the future, that such an Institution as the Western Hospital was an imperative necessity, and predicted for it a grand career of usefulness.

The motion was seconded by John C. McLaren, Esq., and carried unanimously.

The officers of the Society were then authorized to receive the land for the Corporation, after which the following list of subscribers to the Western Hospital was read. It was stated that nothing like a general canvass had been undertaken, the subscriptions secured had been obtained by a very partial canvass of a few friends. The subscription of Major Mills is for the erection of a wing, the others for land and general purposes.

Major Henry Mills, $12.000.

William Workman, $5,000.

Henry Mulholland, $1000; John L. Cassidy, $1000; Stanley C. Bagg, $500; James Coristine. $500; Henry Judah, $500; Hugh McLennan, $500; R. J. Reekie, $500; A. A. Ayer, $300; W. S. Evans, $300; A. F. Gault, $300; E. K. Greene, $300; William Macdonald, M.D., $300; W. B. Mocock, $300; A. W. Ogilvie, $300; George Stacy, $300.

Wm. Almour, $200; Jas. Benning, $200; John Costigan, $200, C. P. Davidson, $200; Jas. Ewan, $200; Wm. Ewan, $200; Robert T. Godfrey, $200; M. Hannan, $200; Haeusgen & Gnaedinger, $200; Jas. Hutton, $200; Jas. Jack, $200; John McLennan, $200; Robert Moat, $200; Laird Paton & Sons, $200; Hon. A. D. Smith, $200; J. K. Ward, $200; Trenholm & McLaren, 200.

The following are subscribers of $100.

Andrew Allan, E. F. Ames, Wm. Angus, E. Atwater & Co., R B. Angus, John J. Arnton, John Birks, C. Bailey, S. W. Beard, C. J. Brydges, George Brush, Robert Brodie, Geo. Bishop, M. Babcock, Jas. Brissette, Jos. Barsalon, Campbell Bryson, P. D. Browne, Walter Burke, John C. Becket, John Bell, M.D., A. Cantin, C. A. Cantin, J. B. Cantin, Kenneth Campbell, Francis W. Campbell, M.D., S. S. Campbell, J. Crathern, Thos. Cramp, E. M. Copeland, A'ex. Coultry, Robert Campbell, James Cassils, George Childs, H. D. Cowles, Thos. Caverhill, Wm. Clendinneng, Wm. Donahue, G. A. Drummond, C. D. Edwards, J. S. Evans, Robert Forsyth, J. A. Gillespie, E. K. Greene, Wm. Gardner, M.D., Chas. H. Gould, Robert Gardner & Son, D. H. Henderson, Joseph Hickson, J. L. Hardman, Geo. N. Hall, John S. Hall, A. C. Hutchison, Randolph Hersey, Alex. Holmes, J. S. Hunter, Phillip Henry, E. Hudon & Fils., Jonathan Hodgson, Hon. L. S. Huntingdon, Sir F. Hincks, H. R. Ives, W. F. Kay, Wm. Kennedy, R. A. Kennedy, M.D., Anthony Kerry, B. Levin & Co, Benjamin Lyman, M. C. Mullarky, F. B. MacNamee, S. H. May, D. McEachern, John Molson, John C. McLaren, John Martin, Joseph Martin, John Murphy & Co., Wm. McLaren & Co. Jas. McDougall, John Moat, W. C. Munderloch & Co., Lord, Magor & Munn, J. Meyer & Co., McDougall & Davidson, — Moodie, E. J. Maxwell, D. J. Rees, H. A. Nelson, Wolfred Nelson, M.D., Prowse Brothers, Thos. Parker, J. A. Pillow, A. T. Patterson, Peck, Benny & Co., Thomas Pringle, Richard Patton, G. W. Reed. T. Robertson, Jackson Rae, M. P. Ryan, M.P., Robt. Reid, Wm. Rodden, Geo. F. Slack, M.D., Chs. Stimson, C. C. Snowdon, H. Shorey & Co., O. W. Stanton, David Sinclair, J. H. Stearnes, Henry J. Shaw, Henry Starnes, James Shearer, A. A. Stevenson, John C. Spence, Wm. Smith, Jas. Simpson, Thos. M. Taylor. Jas. W. Taylor, E. H. Trenholme, M.D., Wolferstan Thomas. Jos. Tiffin, Tiffin Bros., I. F. Scripture. C. W. Woodford, Geo. Wilkins, M.D. Waller & Co., Chs. H. Walters, Ogilvie & Co., Jas. O'Brien.

A second meeting of the Governors was held on the 5th February, when it was announced by the Secretary, that the first instalment of the land purchase had been paid, and the property was now in the possession of the Corporation of the Western Hospital. The following additional Subscribers were received and were duly elected Governors; Sir Hugh Allan $500, A. C. Hutchison $400 (additional,) McLachlan Bros. & Co. $300, B. Kortosk $100, F. R. Whiteside $100, Robert Mitchell $100, Robert Miller $100, Sawtell Bros. $100, George Wait $100, C. C. Claggett $100, Alfred Perry $100, James Douglass $100, Charles McAdam $100, Jas. Muirhead $100, Douglas Kirk & Co. $100, Robert Dunn $100, William Ross $100.

We think that with the above subscriptions the project is assured of success.

THE LATE DR. SUTHERLAND.

The accident to this number of the *Record* enables us to announce the death of Dr. William Sutherland, for many years Professor of Chemistry in McGill College, which melancholy event occurred on Tuesday morning, the 9th February. Hundreds

in the profession throughout Canada will read this announcement with deep regret. In our next issue we will give a lengthy notice of our departed friend.

CANADIAN MUTUAL BENEFIT ASSOCIATION.

Among our advertisements will be found one, announcing the full and complete organization of this Association, with its head-quarters at Toronto. Of the need there was for such an institution, every member of the profession is, unfortunately, but too painfully aware. The remuneration afforded to medical men, (especially in the country districts,) is not such that a competency can be secured—at all events until after many years of toil. Constantly surrounded by disease, how many chances of an early death the physician has, before such a period arrives. To all in the profession this Society enables a protection to be thrown around their families, should death occur; if sickness prevents attendance on professional duties, again the Association affords relief in the shape of benefits. The names of the officers are those of men who are everywhere recognised as prominent members of the profession, and regarding whose reliability there is no question. Their active interest in the work is, in our opinion, a safe guarantee of its success. We cordially draw the attention of our readers to the advertisement.

TO OUR EXCHANGES.

We do not know whether our Post Office Department or that of the United States be at fault, or whether the fault lies with the publishing houses of our Exchanges, but we receive many of them very irregularly, and some never reach us at all. For instance the *Chicago Medical Journal*, to which we have regularly forwarded a copy of the *Record* since its first issue, has never sent us a copy in return. We, however, got a stray number of it addressed to the old *Canada Medical Journal*, and as it publishes a list of exchanges received, we are somewhat surprised to notice that it does not mention our *Record*, which, as we have stated, has been regularly mailed to it since our first issue. The *Cincinnati Lancet and Observer* has reached us twice in two years. The *Chicago Journal of Nervous and Mental Diseases* honoured us with its first number only. *New Remedies*, published by Wm. Wood & Co., New York, give us a visit once in eighteen months, and the *American Journal of Obstetrics*, published by the same firm, once a year. About once in five months the New York *Medical Journal* puts in an appearance; and the *Pacific Medical Journal*, although the *Record* has been sent from the first, has not favored us yet with an exchange. The following Journals have been on our Exchange list from the very first, but we have yet to receive the first copy of any of them. If, after this special notice on the subject, they still fail to put in an appearance we will strike them off: *Journal of Medicine*, Savanah; *Medical and Surgical Journal*, New Orleans; *Glasgow Medical Journal; Medical Journal*, Louisville, Kentucky; *Medical Journal*, Charlestown; *Journal of Medicine*, Nashville; *American Practitioner*, Louisville Kentucky; *Medical Journal*, Buffalo.

QUEBEC PHARMACY BILL.

We learn just as we are going to press that the Bill has passed its third reading in the Legislative Assembly. We have only time to say that we warmly congratulate the Druggists of this Province upon the success which has crowned their persevering efforts to be able to legislate or control their own affairs. We believe that the future will prove that those medical men who aided them in the work, acted the part of wise and liberal men.

TO OUR SUBSCRIBERS.

We have to inform our subscribers that our very late issue is due to an accident, just as we were about to go to press.

Please remit amount of subscription due.

BIRTHS.

At Point St. Charles, on the 6th January, the wife of Dr. Rodger, of a daughter.

In this city, on the 21st December, the wife of Dr. C. Dubuc, of a daughter.

MARRIAGES.

At Port Rowan, on the 11th December, S. P. Emes, Esq., M.D, of Drayton, to Anna Amelia, daughter of the late Andrew McLennan, Esq., of Port Rowan.

DIED.

At St. John, New Brunswick, on the 1st of January, at the age of 71 years, William Livingstone, Esq., M.D, Ed.

Dr. Livingstone was one of the oldest residents of St. John. He was an accomplished physician and a clever writer, and his memory will long be cherished. He leaves a wife and one daughter to mourn his death.

On the 25th November, of malignant sore throat, Sarah Esther, youngest daughter of Dr. Boddington, Sparta, aged 1 year 3 months and 10 days,

On the 26th November, of convulsions following scarlet fever, Amy Winnifred, eldest daughter of Dr. Boddington, Spart , aged 2 years 11 months and 16 days.

In Raleigh, on 4th December, Charlotte Wade, beloved wife of James Walker, and daughter of the late Hugh Wade, M.D., of St. Thomas, Ont., a native of Putney, Eng., aged 48 years.

At Point St. Charles, Montreal, on the 26th January, Charles Rodolphus Wickham, youngest son of Dr. Fuller, aged 1 year 3 months and 16 days.

Original Communications.

Three Cases of Diphtheria. By FRANCIS WAYLAND CAMPBELL, M.D., L.R.C.P., London; Professor of Physiology, University of Bishop's College.

Read before the Medico-Chirurgical Society of Montreal, January 29th.

MR. PRESIDENT AND GENTLEMEN,

Fortunately for us, diphtheria is a disease of which we have seen but little in the City of Montreal. There never, to my knowledge, has been an epidemic of it in our midst, and the terrible experience of it which at various times has fallen upon St. John, N.B.; Prince Edward Island; London, Ont.; Brooklyn, N. Y., and Boston, has, fortunately, thus far been spared us. The occurrence, however, very recently, of some seven or eight cases, with six deaths, in a fashionable terrace, (Dufferin Place, St. Catherine Street, west,) situated on the very outskirts of the city, and apparently surrounded by all that contributes to salubrity—has startled the city. The almost complete obliteration of one family, and the heavy losses in another, has drawn forth popular sympathy in a marked degree. It has been my sad duty to be in attendance upon three of these cases, and their details I propose to bring before you this evening.

On the evening of Tuesday, the 5th of January, I was sent for to see Herbert B., son of T. B. Warren, Esq., aged four years and a half. (This little patient, I may observe, had only been one week from under my care, having for the previous six weeks been confined to the sofa, for extensive and severe scalds of both feet.) I found him slightly feverish; temperature of 100½; tongue coated with a thin white fur; eyes heavy; pulse 104. As diphtheria had, about six weeks previously, carried off three children in the second house from them—same terrace—I examined the throat; there was no swelling externally, and I was unable to detect anything from an internal examination. I prescribed a mixture of liquor ammonia acetatis, with Fleming's tincture of aconite.

January 6th, 12 noon. Patient still feverish, although he passed a fair night; temperature has risen to 102⅔; pulse 120; tongue very much like what it is in scarlet-fever; papilla enlarged, and covered with a thick creamy fur; throat is sore; glands much swollen; an internal examination reveals both tonsils congested and swollen; but no evidence whatever of diphtheritic deposit. An examination of his body revealed a scarlet rash, on the inside of both thighs. I confessed my inability to make a positive diagnosis, but leaned rather to the idea of scarlatina. I directed the mixture ordered the previous evening to be continued; goose oil to be applied hot over the swollen glands, and then covered with flannel, and, if possible, every hour or two to get him to inhale steam. I desired him to be placed in bed, but as his mother said he would not remain in it, a bed was made for him on the sofa in the sitting room. A large dancing party having been arranged for this evening, I directed every precaution should be taken against his being exposed to any draught of cold air, and if any change should occur that I should at once be notified.

January 7th.—Received a message at ten o'clock, to make an early visit, which I did. On reaching the house, was informed that he continued in much the same state as described above, all yesterday afternoon and evening, and that he slept quietly during all the noise of music and dancing. At four, a.m., as his parents were retiring, the last guest having gone, he awoke and spoke in a hoarse whisper;—he continued restless all the rest of the morning, and towards eight o'clock the breathing became involved. I found his condition as follows:—patient greatly altered in appearance; skin of a dark, dusky hue; eyes sunken; Parotid glands greatly swollen; loud croupy cough, with the loud stridulous breathing of a well marked case of croup. On examination of the throat, I found both tonsils covered with large white patches—evidently of very recent formation, for they were milky, and opaline in appearance.

Although I had never previously seen a case, I believed I had to deal with a true case of diphtheritic croup. I informed the parents of the gravity of the case, and asked for assistance in its management. In the meantime, however, I placed him on a mixture of acetate of ammonia, vinum ipecac., and syrup of squills, with cold cloths around the neck, covered with oil silk and changed every hour. To have plenty of steam in the room, which was accomplished by means of large open tin dishes, containing boiling water—frequently renewed. At one p.m., patient seems slightly easier, but the patches on the tonsils are increasing in size; but little air entering the lungs. At 5.30 p.m., Dr. R. P. Howard saw the child in consultation, and by this time the symptoms were all very considerably aggravated. My diagnosis was confirmed, and the following treatment decided upon. Ten drops of the tincture of the muriate of iron, in glycerine, every three hours. The

larynx to be brushed out, by means of a probang, with a solution of nitrate of silver, forty grains of the salt to the ounce of water; lime water spray, one to sixteen of water, to be used by means of a hand atomizer, every few hours; with an emetic of sulphate of copper, as indicated, and *wine and beef tea ad libitum*. Between seven and eight o'clock, I returned, and took the management of the child in my own hands. By this time every fluid attempted to be swallowed was instantly ejected, and the dusky hue of the skin, already spoken of, was more distinctly marked. In fact, there was marked exacerbation of all the symptoms. I applied the solution of nitrate of silver by means of a probang, as decided upon at the consultation. The dyspnœa, which followed its application, was so desperate that, for a few moments I thought life would terminate. At brief intervals, wine and beef tea were given liberally—but little was retained, however. At nine, p.m., applied to the fauces, by means of a hand atomizer, lime water spray of the strength of one to sixteen of water. It did not produce any gaging; in fact it seemed to be liked by the little patient, as he subsequently twice asked me for its repetition.

11 *p.m.*—Child tossing about greatly. No cough now whatever; simply the loud whistling respiration. The sulphate of copper emetic was now given, and although copious emesis ensued, no shreds of membrane came up, nor was there any relief afforded.

12 *p.m.*—Again applied the lime spray. As food is now retained better, I devoted much of my time to giving wine and beef tea.

1 *a.m.*—No improvement. The dyspnœa is painful to witness; child clutches at his throat, and puts his fingers far into his mouth.

2 *a.m.*—Pulse, which has kept pretty steady at 150, is now small and slightly irregular. Changed from wine to brandy; this he takes readily and most of it, and other fluids are now retained.

3 *a.m.*—Respiration worse; pulse rather better since brandy; gave again sulphate of copper, which resulted in copious vomiting, but afforded no relief to the fearful dyspnœa.

6 *a.m.*—Patient is failing; breathing very whistling; pulse small and feeble. Will not take any medicine, but eagerly takes fluid nourishment in almost any quantity. Gave instructions to give him at least a tablespoonful of brandy every hour, and at 6.30 left for home. Returned at 8.30, and found my patient sinking; is gradually becoming cyanotic. The tonsis and pharynx are now well covered with diphtheritic membrane. Dr. Howard met me in consultation at 10.30, when all hope was abandoned. The struggles for breath about mid-day were most heart-rending. About 3 p.m. he became unconscious and shortly after passed quietly to his rest.

Case II.—While attending to the above patient, and sitting by his side at midnight—his little sister, Maple, aged two years and four months, who had gone to bed about seven o'clock, apparently in her usual health, awoke somewhat suddenly, crying bitterly. I was asked to see her, and found her skin hot and dry; pulse 160; glands of the neck swollen, and voice somewhat husky. Skin of thighs covered with an erythematous rash. Examined the throat, and found the tonsils much congested; the examination was conducted with difficulty, but I was unable to detect any evidence of diphtheritic membrane. I was convinced, however, that this was also going to be a case of diphtheria. I accordingly steamed the throat well, and applied hot oil to the swollen glands, after which she fell asleep. At 1 a.m., child awoke screaming, and almost immediately went into a convulsion, which lasted fully five minutes. Put feet in warm water and applied cold to the head. 1.30 a.m.—Just as the child was beginning to appear conscious, another convulsion supervened, and lasted about the same time. When she came out of it, I gave her ʒ II. of Ol. Ricini. At 2.10, another convulsion, when I put her on a mixture containing bromid of potash, tinct. of ferri and spts. of chloroform. From this till 6.30 had four convulsions, the last being about five o'clock and not very severe. Before leaving the house, which I did at 6.30 a.m., examined the child's throat, but could not distinguish any diphtheritic membrane, although it was much congested.

Returned at 8.30 a.m. During my absence the child had two more convulsions. An examination of the throat now revealed two small patches of white opaline membrane—one on each tonsil. At 10.30 Dr. Howard met me in consultation, and confirmed my diagnosis. Decided to place the child on ten drops of the tincture of muriate of iron, every three hours, with beef tea and milk, and to apply to the membrane, by the means of a camel's hair pencil, the liquor ferri perchloridi, one to three, which I did shortly afterwards.

January 8, 5 *p.m.*—Dr. Howard, who was to have met me at this hour, having been called to Sherbrooke, was unable to do so. The membrane has extended considerably since my last visit and now covers the tonsils and pharynx. Again applied the liquor ferri perchloridi. Is able to swallow with difficulty—part is ejected; a considerable portion of the

nourishment and medicine taken is retained. Is very restless; no more convulsions. Pulse 160.

9 p.m.—Dr. Kennedy saw the case with me this evening. Membrane has extended slightly. Child has been very restless. The eruption, like that of scarlet fever, is now very well marked on inside of thighs. Applied the liquor ferri perchloridi to throat, in form of spray, by means of the atomizer, and advised hot camomile poultices around the throat, to be changed every hour and a half, and to have half an ounce of brandy, in divided doses, every three hours. To push nourishment regularly during the night. Dr. Kennedy remained in charge all night, and reported in the morning a restless early portion of the night—the after portion more quiet.

I will not further report this case in detail; but will say that the treatment above mentioned, with the addition of a quarter of a grain of quinine to the iron mixture, was faithfully carried out. There was no visible extension of the membrane, and by Sunday the child swallowed well and took food readily. On Monday and Tuesday the tonsilar inflammation seemed abating, and considerable pieces of membrane were thrown off, and discharged. The spirits of the child improved wonderfully, and it would sit up in bed, and asked for its playthings. I was hopeful to a degree of the result. On my visit on Wednesday morning I was told that toward daylight she had got restless, and had coughed several times distinctly croupy. Examination of the throat showed increased congestion of tonsils but no evidence of fresh membrane. The breathing was good, and the air entered the lungs freely. I, however, was anxious, and returned at one, p.m., but found patient in about same condition. Returned again at about five, p.m., when I was informed that she had slept a couple of hours, and had coughed several times, and not so croupy. At eight, p.m., when I made my visit, the change noticeable in my little patient was most decided. The restlessness was marked, cough loudly croupy, and breathing rapidly becoming stridulous. Examination of throat revealed no change from last report. Dr. Kennedy, who had seen the case with me regularly twice a day, and myself, decided to ask for additional advice, and Dr. Howard was sent for, and at nine, p.m., met us in consultation. We agreed as to the extension of the membrane down the larynx and to the desperate character the disease had now assumed. Treatment similar to that adopted in Case No. I, was decided upon, save that no attempt was made to brush over the affected part with solution of nitrate of silver. Dr. Kennedy, who remained all night, desisted from the emetics after one administration, as the collapse that followed their action was so serious as to threaten life. The symptoms gradually grew worse, till all the symptoms of diphtheritic croup were present, and at eleven, a.m., on Thursday, the patient died.

Case III.—Mrs. W., mother of the above two children, was a lady twenty-five years of age, of delicate nervous organization, and especially prone to throat and chest affections. Ever since her marriage and arrival in this country, over five years ago, I have been her medical attendant, and have some five or six times had to attend her for mild attacks of tonsilitis, induced upon the slightest exposure—and several times also for bronchial affections. In December last she was confined to her bed for several days with a very mild attack of tonsilitis, from which she recovered rapidly—her general health, however, was not the best. In August last, she crossed the Atlantic, with a view of re-establishing it; but returned to Canada, after two weeks sojourn in England. This hurried trip, with the cares and anxieties of her three young children, who accompanied her, I fear did her little if any good. I mention these facts to shew that the general condition of the *vis medicatrix naturæ* was not by any means the best. On the evening of Wednesday, January 6th, a large dancing party was given by this lady, and she was dressed with her chest and throat not so well protected as usual; this she herself informed me. When about to retire, at four a.m., on Thursday, the sudden illness, as described in Case I, of her eldest boy, kept her from getting any rest. She remained at his side all Thursday, and nothing would induce her to leave him during Thursday night and Friday morning. Noticing her kissing her child on Thursday evening, I positively commanded her to desist; telling her of the great danger which she was running—but although she promised me faithfully to do so, her maternal instincts would at times overcome her, and she would again tenderly kiss her dying child. Early on Friday morning she said to me her throat had been feeling uncomfortable for several hours. I examined it; but, as in the case of her second child, could observe nothing beyond what I had often before found her suffering from, viz., ordinary tonsilitis. When I returned at 8.30, it was to find her throat greatly worse; both tonsils much more congested than at my previous examination, and both covered with large patches of diphtheritic membrane; tongue coated; slight heat of skin; pulse 140, and small volume. Dr. Howard saw her at 10.30, and confirmed the diagnosis. We decided

to apply the liq. ferri perchloridi. 1 to 3, to the membrane, by means of a camel's hair pencil, and to give ʒ ss of the tincture of the muriate of iron in conjunction with spts. of chloroform every three hours. Beer at intervals, and large quantities of potas. chl. (ʒ iss to Oj) in lemonade.

11.30 *a.m.*—Returned to apply the liq. ferri perchloridi, and found the membrane has rapidly extended. It has now passed over the left tonsil, and covers the pharynx, and forward as far as the velum.

5 *p.m.*—Is very restless; throws up everything; glands greatly swollen; no further extension of membrane; pulse 164. Hot poultices of linseed ordered to be applied to the throat and changed every hour and a half.

9 *p.m.*—As mentioned in the other cases, Dr. Howard having been called out of the city, Dr. Kennedy joined me in attendance on Mrs. W. She is still very restless; but there is but little, if any, extension of the membrane. Pulse is weak and difficult to count; but, as near as I can judge, is about 170; skin is of a dusky hue, and eyes are very heavy; still vomits everything she takes. To have additional water with her iron mixture, and in place of beer, which she cannot take, is to have brandy and water of the strength of two glasses to a tumbler. This quantity may be taken every three hours, with beef tea and broth at intervals. Applied the liq. ferri perchl., 1 to 3, to the throat and fauces, by means of a hand atomizer. Dr. Kennedy remained all night, and reported to me in the morning that she passed a restless night, but that the brandy and water was not rejected by the stomach, and that towards morning the beef tea had been retained.

10.30 *a. m.*—Patient is very prostrate. Slept about an hour this a.m., which is the longest sleep she has had for three nights; face very dusky; eyes sunk; tongue heavily coated, and is black from the iron; pulse is 170, and decidedly irregular in volume. All nourishment is now retained. Bowels have not moved for three days. To have an enema of warm water. Although no extension of membrane, again applied the iron spray. To have a gargle of chl. of potash and muriatic acid, which she is to use every two hours. Iron mixture as before; it is now retained; other treatment continued; but as she complains of the weight of the linseed poultices, ordered camomile poultices instead.

9 *p.m.*—Got several hours sleep after the action of the enema; looks the better of the rest; face not so dusky; eyes are brighter; voice husky; no new development of membrane, and a distinct line of demarcation is seen all around it; pulse 168. Has taken beef tea and chicken broth, also ʒ vj of brandy and 3 drachms of chlorate of potash since the morning. Again used the spray, but very slightly.

Sunday, January 10.—Slept but little last night; not more, altogether, than a couple of hours. Has followed (under care of an experienced nurse now in attendance) all the directions given. Experiences much relief from the gargle, and several pieces of membrane of considerable size have become detached; one piece fully an inch long and three-quarters of an inch broad, was kept by the nurse and shown to Dr. Kennedy and myself. Has taken the brandy and beef tea regularly, and in quantities; pulse 164; a slight decrease since yesterday.

9 *p.m.*—Passed a fair day; says she feels better; large quantities of the membrane have been discharged to-day. Is able to swallow better. Pulse the same as morning. To push nourishment at regular intervals during the night.

January 11.—Slept about four hours; says she is better and looks improved; throat is cleaning, although there is but little change in its congested appearance. Membrane still being discharged in quantity; glands slightly less swollen; pulse 160. Continued as before, with the addition of a grain of quinine to each dose of the iron mixture.

9 *p.m.*—A good day; slept some; throat about the same. Poultices discontinued and two layers of flannel wrapt around the throat.

January 12, 10 *a.m.*—Passed a fair night; throat cleaned considerably; pulse 152.

9 *p.m.*—Asked to have the brandy changed to champagne, which was granted; says she feels better. Pulse is slightly higher, being 158; still keeps bringing up large quantities of membrane.

January 13, 10 *a.m.*—Nurse informed me that after the champagne did not seem so well; so did not repeat it but returned to brandy. Slept some; but altogether the night was a very restless one; face is again dusky; eyes are sunken; the conjunctiva slightly jaundiced; tongue livid; pulse 138, and very small. Bowels not having moved, ten grains grey powder ordered, to be followed in three hours by a seidlitz with a teaspoonful of sulphate of magnesia in it.

2 *p.m.*—Bowels moved once; face dark, and lips blue; fingers quite blue up to first phalange; examined lungs, found the respiratory murmur entering freely every portion. Heart's sounds normal; pulse 136.

5 *p.m.*—Bowels moved twice since last visit, and feels herself better; pulse is 126, and fuller than at two p.m.

9 *p.m.*—Dr. Howard, being in the house to see Maple, saw Mrs. W.; examined lungs and heart, and confirmed the opinion given by me at two, p.m., visit; examined throat and coincided with Dr. Kennedy and myself, that it was doing well. Her condition was certainly much better than it was in the morning. So, after consultation, we came to the conclusion that all was doing well. Dr. Kennedy remained all night.

January 14.—At seven this morning, Dr. Kennedy came to me on his way home, and said that he did not at all like her condition. She had been very restless, and complaining of colicky pains in the bowels; and that the jaundice had increased; while the pulse had been falling rapidly, till it stood at 78. I immediately went up, and found a very great change from the previous evening; face very livid; lips blue; eyes sunk; tongue and fauces deep livid color, while tongue was sensibly cold to the touch; with all this there was a fair temperature even of the extremities.

10 *a.m.*—Dr. Howard met Dr. Kennedy and myself. He at once saw the change from the previous evening, and we came to the conclusion that the poison was acting on the heart and lungs, and that her condition was most serious. Gave special instructions to the nurse with regard to giving nourishment and stimulants frequently, and placed her upon the following mixture: ℞ quin. sulph. gr. xxxii, acid sulph. arom. ʒ ss, tr. nux vom. ʒ iiss, inf. digitalis ʒ ii, aqua ad viii. A tablespoonful every three hours. To wash out her mouth with warm water.

12 *m.*—No change apparent, save that the extremities are somewhat warmer, and the pulse has risen to 84, but is very small.

2 *p.m.*—Has become convinced that her baby is dead, and the event has visibly affected her, as fulfilling a dream, which I will shortly allude to. Is very restless; pulse 84, and irregular in rythm. Other symptoms as before. Asked whether she would recover, and when told that everything depended how she kept up her spirits and took nourishment; she replied that she would take anything we gave her.

4 *p.m.*—When Dr. Kennedy and myself entered the room we were struck with the change which had had taken place. Patients countenance altered in appearance; eyes deeply sunk in head, and face very livid; lips almost black; congestion has now extended over the fingers, and embraces the hands; tongue black, even where the coating had disappeared, and cold. Skin is covered with perspiration, which is warm. Respirations are shallow, every eighth or tenth respiratory act being deep and prolonged, and are 32 per minute. Heart sounds are fairly clear and distinct; if any change, it is in the first sound being slightly softer than natural. Pulse still 84, but irregular about every six beats. There was now no question whatever in my mind that my patient's hours were numbered. Dr. Howard was to return at 9 p.m., but I feared she might not last till then; so leaving Dr. Kennedy in charge, I went to get him, which I did after his lecture, and he returned with me. The result of the consultation was the conclusion that all our efforts had been futile, and that a very few hours would close the scene. We, however, determined to continue nourishment and medicine. From this time, till after eight o'clock, patient was very restless, flinging her arms constantly about her. At a quarter to nine she swallowed some brandy and water, and spoke to the nurse. A few minutes after she was seized with a severe convulsion, which the nurse tells me did not last more than two or three minutes, and in it she died. Thus was a mother and two children cut off in the brief space of one week. I have alluded a few moments ago to the fulfillment of a dream, and the facts are really such that I cannot forbear mentioning them. On Monday morning, the 4th of January, Mrs. Warren awoke herself crying, and at once informed her husband that she had dreamt that two small coffins were being carried out of her house, and that he was walking behind as chief mourner. On the Tuesday, when I saw her little boy for the first time, she told me of it, but I laughed at it. Subsequent events proved its terrible reality.

It becomes an interesting question, as to how diphtheria reached this family, as there was complete non-intercourse between the house in the terrace where the disease first made its appearance. My own idea is that it came to them in the following way. So nervous was the father of this family to have his house thoroughly healthy, that he, towards the end of December, employed a plumber, who connected with the soil pipe in the closet a pipe which he inserted into the chimney, so as to convey away any noxious gas. While this was being done for a portion of a day, the soil pipe was open, and free entrance was afforded to the miasm; for this soil pipe communicated with the drain into which the excrement and expectorated matter of the first three cases was emptied.

Again it is said, that the cook and the housemaid, who are sisters, and whose family reside at Point St. Charles, lost two young members of their family from diphtheria. It is true that two young children

died in their family in December last, it is said of croup; but, although I have attempted to solve the problem, I am unable to say whether it was diphtheritic or not, although the mother assures me there was in neither case swollen glands, a fact which leads me to think it was ordinary membranous croup.

I have not entered at all upon the general subject of diphtheria, as I believe it will come out better in the discussion; besides, my experience has really been nil.

10 Phillips Place,)
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Notes and observations on Malignant Scarlatina, and allied affections. By WILLIAM E. BESSEY, M.D., C.M.

Read before the Medico-Chirurgical Society of Montreal, February 19, 1875.

The occurrence of a number of cases of scarlatina and other diseases of unusual malignancy during the present winter has afforded opportunity for observation, and suggests a few thoughts to my own mind respecting the etiology, pathology and treatment of affections of this character, which I trust may be of interest to the members of this Society.

I use the term malignant in this connection to designate an overwhelming toxæmic impression of the *materies-morbi* present in the system. Although belonging to the general class of zymotic affections, I prefer the word septæmic as a designation which more truly indicates their real character.

The present season has witnessed the presence amongst us of epidemics of the exanthems and other zymotic affections, presenting a number of cases of unusual severity, and marked from the outset by the evidence of a true malignant character. It has been my lot to attend a large number of cases of scarlatina, some of which were of this type.

In general terms I might refer to them as marked by a terrible degree of depression without any tendency to reaction. The eruption at first of a dark crimson color soon changed to a livid, and in some cases, from having apparently receded in spots, a mottled appearance. The usual hyporexia was early followed by lowering of the temperature of the general surface of the body, with coldness of the extremities, changing at times to unusual heat, as in one or two cases. In others the extreme depression with coldness of surface and extremities was continuous, pulse weak and rapid, throat in some instances intensely congested, in others not much affected, while in one case it presented a membranous coating like to that in stomatitis.

The impression to the mind on seeing some of these cases for the first time was, that the great nerve centres were being overwhelmed by some powerful toxæmic influence, capable of depriving them of their wonted energies, and of substituting for the usual vital manifestations a tendency to decomposition, putrescence and death.

So overpowering is the morbific influence in some cases, and so great the vital depression, that children in the bloom and vigor of health succumb in a few hours—the body after death having the appearance of putrid poultry, and in one case the whole body assuming a melanotic appearance some hours before dissolution.

The peculiar appearance, and absence of all rigor mortis, in one case, reminded me of the appearance of a body after death from a stroke of lightning.

Before proceeding to a detailed account of the cases I wish to refer to, I should mention what appeared to me to be a remarkable concurrence of a cough of an aggravated—I might almost say spasmodic-nature. Indeed in one case I hastily pronounced it to be whooping cough—although as the child recovered, this symptom subsided, as it had appeared, with the disease, and I was left to ruminate over the difficulties often attendant upon questions of diagnosis.

The first four cases to which I shall refer were the children of a strumous mother, who died of phthisis at the age of 45. The father still living and robust.

In the other cases there was no evidence of any constitutional depravity. Although in the last fatal case to which I shall refer, the child was said by the mother never to have been strong or vigorous from birth.

As constitutional peculiarities may be one of the chief factors in some cases of more than usual severity and fatality in a given disease, I have thus briefly referred to them.

During the latter part of January I was called upon to visit a family residing in Delisle Village, (a badly drained locality,) in which four children, aged from four to eleven, were taken ill with scarlatina, one of whom had already died.

CASE No. 1.—The first in this family to succumb to this deadly virus was a bright little boy of four years of age. He had been in perfect health apparently up to the onset of the disease, which he survived but 24 hours.

I was informed (not having seen it while living) that in this case the attack had been ushered in by sickness and vomiting. The rash had been slight

but dark in shade, and there was a general coldness of the surface and extremities with lividity. The glands of the throat were swollen. The child was believed to have been sensible up to a short time before dissolution, although during the last 12 hours of its existence convulsions had been frequent. Had learned nothing of the treatment observed. Post mortem appearance of body very melanotic.

CASE 2.—A child in same family was seen by me a few hours before dissolution, but too late to be of any service. It was a fine little girl of 9 years. The brain symptoms in this case were well marked; the patient lay in a semi-comatose condition, pupils large and insensible to light; pulse small, flaccid and too frequent to be counted; general coldness of the surface; a spotted efflorescence of a purplish hue covers body and inside of thighs. Fingers blue, veins in back of hands and arms also blue. Is very restless and crying out; coughing frequent. Head thrown back, teeth clenched; utters plaintive cries on being lifted to give drinks, and manifests a disposition to opisthotonos. Urine at first scant, afterwards freely voided; later is having involuntary motions of bowels.

Treatment: Applied artificial heat to surface of body, and stimulants ad libitum, with hot mustard pediluvia. No reaction could be established in the slightest degree, and complete collapse was soon followed by death.

CASE 3.—The next case that I will trouble you with an account of from its interesting character was that of a little girl of 7 years of age. In this case the disease came on gradually, presenting nothing remarkable at first. There was but slight affection of throat; the efflorescence was well out on the body, but dark in colour and irregularly spotted, cheeks crimsoned deeply, shewing capillary paralysis —general appearance such as to create in my mind a feeling of uneasiness as to the prognosis, when taken in connection with other untoward symptoms: temperature of surface low, pulse flaccid, 138; is cross, fretful and restless, shewing nervous centres to be implicated; is quite rational, takes food, stimulants and medicine well. Treatment—To administer warm milk and beef tea freely; a teaspoonful of spirits ammmo. aromat. in water every three hours; a tablespoonful of champagne every hour; dose of quinine and tinct. ferri. every 6 hours, also of a mixture of chlorate of potassa and lemonade frequent spoonsful; artificial warmth to body, anointing frequently with warm olive oil; room to be carefully but freely and regularly ventilated; to allay cough with expectorant mixture of ipecac., ext senega., liqr. ammon. acet. and sol. morph. mur. Patient progressed without any unfavourable symptoms until the 5th day; efflorescence now disappeared, patient has suddenly become much weaker, cheeks more deeply crimsoned, dark spots appearing on surface of body and looks as if bruised; voiding turbid urine freely.

6th day.—Greater prostration, pulse small and quick, and can scarcely be counted. Child seems to have lost the use of the left side of body (arm and leg); no change in features except pupil of left eye is more dilated and less sensitive to light. Constant jactitation of right hand and foot, lies in a partially comatose state, from which is easily roused to give drinks. Does not wish to be disturbed apparently, uttering plaintive cries when moved. Has had three slight convulsions during previous night; lies with head thrown back and chin elevated. Ordered mustard to spine and neck, with ungt belladonnæ to be freely rubbed in. Champagne to be given every half hour; Aromatic Spts. Ammon. every hour, and artificial heat to surface.*

7th day.—Has had two violent convulsions during the night, with marked opisthotonos; is quiet and composed this morning; right side still twitching, left perfectly still; general temperature much improved; is quite rational when roused; relaxation of rigidity in muscles of neck is complete this a m. Pulse still small and very rapid. Treatment during convulsions has been hot mustard pediluvia, general sponging of surface of body with a mixture of spts. vini. rct. and chloroform ℥ss ℥iv. Is perfectly rational except during convulsions.

8th day.—Has had 7 or 8 convulsions during night of same character. Cried or shrieked out as fits were coming on, was perfectly rigid and "bent back," as they expressed it, during these convulsions; enjoyed a season of respite from these violent perturbations of the nervous system before death, and sank away in a state of complete prostration after an illness of eight days.

Owing to the spinal manifestations in this case I sought a post mortem which was declined by the friends.

CASE No. 4.—A little girl of 11 years sickened about same time with last case. Did well.

In this case there was great hyperpyrexia at the outset, the efflorescence was of the same character as the last, with the same tendency to a congested appearance of the cheeks. The spasmodic fits of

* The paralysis or hemiplegia of the body in this case, not affecting the muscles of the face, I attributed to congestion of the spinal cord and its membrane, to my mind an interesting feature in the disease.

coughing became very violent at one period of the attack amounting to absolute whooping cough. The pulse was feeble and rapid, general powers of life depressed, throat symptoms troublesome.

Treatment.—Ordered beef tea, milk, (with small portions of liquid magnesia) ad libitum, champagne in tablespoonful doses every two hours*. Great attention to be paid to temperature and skin. Ordered the following medicines:—A dose every six hours of quinine and tinct. ferri; a mixt. of sodæ hyposulphites ʒij, liqr. ammon. acet. ʒj, tinct. colchici. ʒij, aqua. ad ʒiij, a teaspoonful every four hours: also, an expectorant mixture; and the free administration of a saturated solution of chlorate of potassa, both internally and as a gargle, with frequent washings of the throat with sulphurous acid lotion. Suffice it to say that this patient continued to progress favourably and recovered.

Case No. 5.—In another family, residents of St. Joseph street, I saw four cases, three of which were of the milder type, but one malignant in character, and accompanied by severe coryza and otitis or inflamation of the external ear. The head was much affected and delirious, which alternated with a semi-comatose condition. The spinal cord and its membranes seemed to be unaffected. Urine very scant and clear; considerable difficulty in swallowing; pulse raging from 130 to 140; excessive thirst; angina intense; the throat and fauces assuming a highly congested appearance, dark in colour, after a day or two became covered with a membranous deposit akin to that in stomatitis or diphtheria.

Prescribed for this case sulphurous acid lotion to mouth and throat to be used as soon as possible, also a saturated solution of chlorate of potassa in frequent teaspoonful doses. To combat the specific virus and favour elimination of morbid products by the kidneys, prescribed following: sodæ hyposulphites, ʒij tinct. colchici. ʒiv†, liqr. ammon. acet. ʒj, aqua. ad. ʒiij, a teaspoonful every four hours.

Surface of body to be anointed with olive oil warm; regular administration of ammonia and champagne. Thirst to be alleviated by draughts of lemonade, containing chlorate of potassa, and finally a mixture of quinia sulph. and tinct. ferri. mur. ¼ gr. dose of former and 5 gtt. dose of the latter every six hours.

Patient made a good but slow recovery.

Case No. 6.—A child of 18 months old, resident in Murray street, was found suffering from a severe attack of scarlatina anginosa, but with an efflorescence of a dark crimson colour. The throat affection intense; the child delirious and restless; skin hot and dry *; urine scanty; pulse 140, small and weak. Treatment: anointing with warm olive oil, frequent lavements of throat with lotion of acid sulphurous 1 to 16, and the internal administration of the hyposulphites and carbolic acid as recommended by Bland, the prescription being as follows: ℞ sodæ hyposulphitis ʒij, acid carbolici gtt. xij, glycerine ʒiv, aqua ad. ʒiij, a teaspoonful to be given every four hours.

Saw case again on the 4th day. Throat affection aggravated; pulse 140; rash changing to a mottled appearance; child drowsy. Ordered diuretic mixture as follows, to contain colchicum, believing that retained urea might have something to do with the drowsiness or incipient comatose condition: ℞ spts. etheris nit. ʒiij, liqr. ammon. acet. ʒj, tinct. colchici ʒiv, aqua. ad. ʒiij. Dose, a teaspoonful every third hour.

Saw again in the evening. Pulse 180; no head symptoms; throat affection worse; breathing rapid. Ordered the following application to throat, ℞ acid carbolic ʒiv, glycerine ʒj, aqua. ad. ʒiv. A teaspoonful to be added to a wine glass of warm water and used as a mouth wash.† To former diuretic mixt. add tinct. aconit. rad. gtt. xij, to be given as before. Stimulants and milk as support; after this had a good night's rest. On the following morning at 7 a.m. convulsions came on; feet cold; body cold; no rigidity; child perfectly flaccid and became quite purple or dark blue over entire surface of body; pulse imperceptible, distress in breathing; continued in a convulsed condition until dissolution at 1.30 p. m. same day.

Case No. 7.—A child in same family as last, aged 4 years, a fine robust little boy. In this case the hyperexia was marked ranging from 103 to 105,

* I cannot, however, attribute too much value to the use of Champagne as a stimulant, although to be preferred to any of the alcoholics from its effervescent character. I should readily dispense with it entirely in favour of *ammonia*, either in the *carbonate* or *aromatic spirits*, which are I think indispensible in all low forms of fever.

† The use of colchicum and diuretics was invariably followed by a free flow of urine and an increase of the solids —with a diminution of the head symptoms.

*The hyperexia was very great, but transient in its duration, and succeeded by a stage of coldness and excessive lowering of the bodily temperature, which increased as dissolution approached.

† The result of the application of the carbolic acid solution to the throat in this case was most satisfactory, and such as to induce me to give it a more extended trial in future.

with a pulse ranging from 120 to 160; throat much affected, efflorescence dense and dark colored, urine suppressed. In this case ordered colchici and diuretics for suppression of urine; to allay heat of surface warm baths 98° every six hours if necessary. For theoat the solution of carbolate of glycerine, and cleansing of mouth occasionallp with sulphurous acid lotion, ammoniated spts. as a stimulant.

Notwithstanding that this case received the most zealous attention, using Tinct. Belladona in addition to other treatment to allay spinal irritation. Child sank away completely exhausted on eighth day. The throat affection or angina and the ozena being intense, with prominent head symptoms throughout. I subjoin a table of temperature with rate of pulse, with the remark that the temperature was always sensibly diminished by the baths, but the abatement of perspiration was never of long continuance.

2nd	Day of	Illness	Tempt...	$103\frac{2}{5}$	Pulse... 140
3rd	"	"	" ...	$104\frac{1}{5}$	" ... 160
4th	"	"	" ...	104	" ... 156
5th	"	"	" ...	103	" ... 149
6th	"	"	" ...	$102\frac{3}{5}$	" ... 140
7th	"	"	" ...	103	" ... 120

8th Day.—Child sinking rapidly, very great lowering of temperature. Pulse 150. Ozœan very troublesome and offensive, throat affection intense. Has taken drinks well, but nothing seems to do child any good. Sank and died at 2 a.m. of 9th. No congestion of capillaries and no lividity of surface of body.

Thus ended a series of cases to me most interesting, and of sufficiently putrescent character to deserve the appelation of putrid scarlatina, in so far as the symptoms and appearance of the surface of the body is concerned.

OBSERVATIONS.

The foregoing cases have been cited as examples of malignant scarlatina, so terribly fatal in character, and will furnish a sort of ground work for a few brief observations respecting the malignant character assumed so frequently by this and other allied affections in Montreal.

I observe 1st, that the habitat or situation in which these cases occurred were usually badly drained, low lying or poorer districts of the city, giving colour to the supposition that sewerage gas or other effluvia from human offal was one of the chief factors in determining the type which an otherwise ordinary attack should assume.

2nd.—With regard to the constitutional peculiarities of such patients, I find almost invariably that they have been persons of low vitality from some cause or other, as previous bad health; the strumous cachexia; or some other circumstances of a debilitating character. So far as I have been able to observe, the hygienic relations of such patients have been of a most unsatisfactory character, insomuch that, given a case of scarlatina, the constitutional cachexia, ill feeding, want of cleanliness, with neglect of personal comforts will so far prejudice the prognosis as to determine its unfavourable character; per contra, well fed, well clothed, warmly-housed, children free from any strumous diathesis, are as certainly favourable to a safe prognosis. This rule, however, I do not mean to say is absolute, because the most vigorous constitution may succumb to an overwhelming putrid poison, and in such cases drain gas will I think be found to be the chief factor.

Again, how can we account for the concurrence during a season like the present, and also in some that are past, of so many diseases assuming the malignant type, as we have seen illustrated in cases of malignant variola in some quarters; malignant diphtheria in another; and malignant scarlatina in another. While but very recently we saw an epidemic of malignant spotted fever, or cerebro-spinal meningitis, in our midst, and the cases of malignant typhoid fever during the last two autumnal seasons have been numerous.

My own conviction in this regard is that the assumption of the malignant type in some cases and not in others of all these various forms of disease is to be looked for, not so much in the amount of materies morbi present in the system as to other unfavourable circumstances. 1st, to the inhalation of an atmosphere, contaminated with disease producing emanations; in this city perhaps chiefly drain gas. 2nd, to the unfavourable physical condition in which the patient is found at the time, from the continued influence of circumstances unfavourable to the preservation of the health and vigor of the constitution. The depressing circumstances of mind, body and estate under which so many exist do, I believe, result in producing a state of things similar to that produced by the mining engineer who has laid his train of gunpowder, to which alone the match is requried to be applied to show the disastrous consequences of such previous influences.

Why should so many cases of this type have occurred during the past and previous years. Because I think in at least the case of typhoid fever, it will be found that, with the lowering of the city supply of water, and the consequent greater accumulation of filth and the emanation of drain gas, the number of

such cases rapidly increased just as the number of cases of small-pox invariably increase during a cold spell in winter. (During the present winter the great scarcity of water has continued to favor the emanation of foul gas from the sewers.)

These diseases are of course epidemic, but not in their malignant character; necessarily this type or characteristic is in constant relation to poverty of some kind, either of outward circumstances, or of constitutional condition. The malignant types of disease find a congenial soil in such subjects and under such circumstances, and become increased in their virulence and fatality. This will be borne out by a reference to epidemics of typhus, cholera, yellow fever, &c., in years gone by.

The great similarity existing between the septæmia in their evidence of blood contamination, general characteristics, and results, leads to the inquiry whether we can in any way identify similarity of cause with similarity of effect. Certainly not, so far as the true nature of the disease is concerned, but decidedly so in reference to the general type and characteristics. It is quite true that one exanthem will not produce another, but often a combination makes its appearance, producing anomalous affections. It is also quite true that a typhus cannot produce a cerebro-spinal fever, and yet their manifestations too frequently bear a striking similarity. Neither will cerebro-spinal fever be considered contagious, or capable of inducing a malignant scarlatina, but we have violent manifestations of a similar pathological change or anatomical lesion occasionally presenting themselves.

I do not forget that our knowledge of the very existence of several of these "morbid poisons" is inferential only, our ideas of their nature purely conjectural and our reasonings upon their mode of action upon the blood and general system entirely speculative.

The concurrent existence of spasmodic cough with scarlatinal cases, throws the mind back upon the observations of Sir Henry Holland, respecting the frequent concurrence of whooping cough with influenza, scarlatina and other epidemic affections involving the mucous membranes covering the fauces and air passages among the *morbus-loci*.

Again, in some scarlatinal cases we have cerebral disturbance, in others spinal symptoms most prominent, while all experience proves that in toxæmic fevers the great nerve centres—prominently the brain—are most involved, as in typhus, typhoid, spotted or cerebro-spinal fever, malignant exanthems, &c

Now, as similarity of effect, even in isolated cases legitimately pre-supposes similarity of causation, may it not reasonably be inquired concerning the *materies morbi* present in the exanthems, typhus, typhoid, spotted or cerebro-spinal fever, diphtheria and the like, in what respects are they similar? How do they differ? And in what way may they be considered as related, if at all; are they all zymotics?

The one great point of similarity, to my mind, seems to be their undoubted septic nature, as occasionally illustrated by their toxæmic influence upon the vital fluid, lessening the number of red corpuscles, and so affecting the fibrine of the blood as to reduce its plasticity, firmness and coagulability, and to favor its purulent decomposition.

Secondly.—Their similarity of action upon the great nerve centres and their coverings, as evidenced in the cerebral symptoms of cerebritis and meningitis and the spinal symptoms of myelitis and spinal meningitis so often manifested in such diseases.

Left as we are, largely to rely upon inferential deduction for our conclusions, it is no novelty to conclude that the whole family of septæmic affections, while possessed of distinct individuality, are nevertheless closely allied in affinity of nature and pathological action. This we find ourselves borne out in by actual post mortem revelation as to similarity of lesion in various septæmic diseases.

Thus the head symptoms in the exanthems and other affections named, are found to be due to congestions primarily attributable to a vitiated state of the vital current, the membranes and substance of the spinal cord in scarlatina, and cerebro-spinal meningitis, the throat symptoms in scarlatina, diphtheria and other cases of blood poisoning. From these and various other considerations of their relation to, and action, upon the vital forces I infer a similarity in the general plan of treatment.

In this respect all require sustaining treatment. The sulphites or hyposulphites at once commend themselves to the mind, and where a *specific disease germ* is undoubtedly present, as in the exanthems a remedy antagonistic to sporadic development, or catalytic multiplication of disease *germs* or *virus* is suggested and fully met in carbolic acid. Hence we find the hyposulphites and carbolic acid not only recommended as, *par excellence*, the remedy for that most loathsome and contagious of all diseases, small-pox; but, on the suggestion of Dr. Bland, these remedies are being used with unprecedented success in the treatment of scarlatina and other anomalous and allied affections. Ziemssen has recommended

the cold wet sheet or packing, but for my own part. I would as soon think of attempting to revive the dying embers of a smouldering fire by sprinkling water upon them, as by adding the depressing influence of cold to an already excessively lowered animal temperature. Tepid baths are unobjectionable and useful in great hyperexia, better still hot mustard baths in cases of great vital depression with lowered temperature.

I say *anomalous*, because of the fact that we occasionally hear of an epidemic somewhere developing some new type of the septæmia, under the influence, it is to be presumed, of peculiar loca modifyng circumstances, as recently in the city of New Jersey, U.S. Notwithstanding that in zymotic affections prevention should be the great goal of ambition for the medical art, yet, once acquired, what treatment can be most relied upon, or have we any treatment sufficiently specific to be termed antidotal in malignant scarlatina and allied affections

In the treatment of zymotic affections having, as a local lesion, inflammation of the mucous membrane, chlorate of potassa seems to have deservedly gained the greatest repute.

While following the use of this remedy for the ocal affection of the mucous membranes, I am strongly of opinion that in all toxæmic diseases we require to avail ourselves of some remedy which may act as antizymotic or antiseptic, and for this purpose I select a sulphite or hyposulphite for the former, and carbolic acid for the latter, following Polli, of Milan; Bland, of Philadelphia; Chaussier and Bielt of Paris.

In scarlatina, where the head symptoms are prominent, I fear they are often attributable to retained urea and hence I have used the tinct. of colchicum with diuretics and sedatives, where the action of the heart is much excited. In cases manifesting decided disturbance of the spinal cord or its membranes, I should be disposed, had I any more such cases, to resort to counter irritation and belladonna inunctions, and the internal administration of ext. ergota and belladonna, acting as they do upon the capillary circulation of these parts.

True, in three well marked cases of cerebro-spinal meningitis, I succeeded perfectly by repeated leaching to nape of neck and spine, and the administration of calomel, with bromide of potassium; but in this affection, as a complication of the scarlatinal poison, I should be slow to adopt the abstraction of blood, even locally by leechings,—besides the cerebro-spinal cases referred to did not assume the malignant type.

The presence of a pseudo-membranous covering in the mouth and fauces in certain cases observed, I am unable to account for, unless upon the supposition that it was of a stomatitic nature and not true diphtherite.

To what extent constitutional tendency, cachexia, idiosyncrasy or present condition may affect the character of an attack of a toxæmic disease, I am unable satisfactorily to determine, but my observations leads me to the conclusion, that all forms of disease are rendered more asthenic thereby, and that the toxæmia manifest a constant tendency to become malignant. It may, however, be replied that different types of the same disease are met with in members of the same family, but so are differences of ingesta, constitutional and inherited peculiarities and temperament, not to speak of wide difference which may exist in the inherent vital forces or nourishing processes going on in the different cases before us.

Such, gentlemen, are a few thoughts suggested by circumstances arising in connection with a few cases I have observed, and I offer them here as mere suggestions to the minds of others of more matured judgment and with more extensive means for observation, experiment and deduction.

An interesting discussion followed the reading of the paper, in which Drs. Craik, Hingston, Reddy, F. W. Campbell and others took part.

Progress of Medical Science.

THE PROGNOSIS AND TREATMENT OF CHOREA

By Dr. Francis E. Anstie, Physician to Westminster Hospital.

[It has been proved beyond dispute that chorea is occasionally the result of embolism of a cerebral vessel, and from the knowledge of this fact it is natural that we should be tempted to imagine embolism as actually present in all these very numerous cases. This would be a grave mistake. There is, however, a connection between rheumatism and chorea which is more widely applicable to the explanation of the facts than the theory of embolism.]

In the inquiries which I have carried on for many years respecting the pathology of neuralgia, one of the most pressing questions for solution appeared to be the kind and degree of connection which existed between neuralgiaand the rheumatic diathesis. There is no need to detain you with the details of that inquiry; suffice it to say that I was compelled to the conclusion that rheumatism is comparatively rarely a direct cause of neuralgia: the truly rheumatic cases of that disease are a very limited group. At the same time, however, I began to perceive another kind of connection between rheumatism and

neuralgia, which I believe will also be found to hold good between rheumatism and chorea. I observed that the hereditary character of rheumatism, which is sometimes well marked, is associated with hereditary tendencies to nervous diseases of various kinds.

[After relating the history of a family illustrative of this in a marked degree, Dr. Anstie observes,]

But this is what I particularly wish to mention:—So far from the chorea universally occurring in the victims of rheumatism, it was often strikingly the reverse.

The prognosis of chorea has assumed a great importance to me in consequence of what I have seen in hospital and private practice; and surely, it is a subject much too lightly treated in the ordinary systematic works on medicine. No doubt there are men who appreciate all the gravity of the subject, but they are in a minority.

I have observed a large amount of suffering and disaster to the health of which chorea has either been the direct cause or at least the prophetic forerunner. I know of few things which would more incline me to think gravely of the future of a family than the fact that I had found it much invaded by chorea.

[Of the accidental causes of chorea.]

The most regular in its operation is insufficient food. Where this has been the main cause of the chorea, or the chief reasons why the chorea is severe, we may hope everything from the effects of copious and generous nutrition.

It is certain that where we can *permanently* raise the scale of nutrition of a patient who has been brought into chorea chiefly by starvation, we may often save his nervous health, once for all.

The next, and one of the gravest questions in estimating prognosis of chorea, is whether the affection occurs in the presexual period, or after puberty has commenced. No doubt every experienced practitioner is more or less aware of this fact, yet I think it is possible to show its magnitude and its importance more clearly than they are usually seen.

[Dr. Anstie then relates two cases in which recovery was due to the patients not having yet reached the perilous period of life which commences with puberty, and then continues:—]

In very gloomy contrast with these cases are others which I have been unfortunate enough to see in the course of my experience. One was a girl of 17, who had menstruated from the age of 13, always profusely. She came into Westminster Hospital, not looking half so ill as the little boy whom I have mentioned; but she had not slept for several days, and was in continual general choreic movement—head, arms, legs, features were in perpetual action. Another twenty-four hours of this made a fearful change; she got into an almost maniacal condition, and died perfectly worn out in three days from admission and in about twelve days from beginning of the illness.

In the next place let me say a few words on the influence which the facts of heredity ought to exert in shaping our prognosis of chorea. And in this respect there are two things to be considered—the prognosis as to the result of the individual attack, and the prognosis as to the patient's future life. In respect to this, there are certain facts not commonly known, as I suppose. If the family from which the patient comes be on the whole strongly disposed to insanity, the chorea itself will not unfrequently be a trivial affair, but it is likely enough to be the first intimation of a coming mental degradation.

It occasionally happens that a boy or girl, born of a family which has numbered many nervously diseased and a few really able members, has chorea in childhood, but in place of getting intellectual harm from it, he seems to date from the period when it leaves him a most marked increase in his intellectual powers. It by no means follows that his moral nature will improve *parri passu*; indeed the spectacle of a "bullocky Orton" turning into a clever rogue like the Claimant, after a youth beset with chorea and semi-imbecility, is, I believe, less uncommon than would be supposed by most persons.

[Now as to the treatment of chorea.]

One broad assertion which is frequently made is, that simple chorea always runs its own course in either four, six, or eight weeks, and then leaves spontaneously. No doubt it does so in very many cases, yet the longer one studies chorea the more one finds that there are many exceptions to this. Not to speak of the pretty frequent cases where chorea, interrupted for the moment by the onset of some acute disease, returns with double vigour and implants itself with double tenacity in the enfeebled organism of the convalescent patient, there is a far from inconsiderable number of simple cases of chorea which tend to drag on beyond that period of three months which, as Jaccoud justly observes, marks the limit at which chorea passes into the intractable type. I have became convinced that there are several means by which at least the disease can be kept to the shorter and more normal term. And besides this, I do not doubt that we can sometimes intervene in the terrible acute cases, with the effect of saving life and preventing the patient from becoming imbecile or epileptic.

In commencing the subject of treatment it is necessary to remark that if embolism be considered the probable cause of any given case of chorea, medicinal treatment must surely be vain. Tonics and cod-liver oil may possibly be of some use in improving nutrition, but we must necessarily wait for the removal of the disease by natural processes. When, therefore, a person who is notoriously suffering from valvular disease of the heart suddenly gets an attack of some kind, paralytic or epileptic, and thereupon passes into a state of chorea, there can be no sense in adopting any special plan of treatmnt beyond that already indicated.

In the very numerous cases, however, in which there is neither rheumatism nor heart-disease present, we should be very foolish, in my opinion, to give up the attempt to interfere with the disease, and indeed the great discomfort which the patient suffers, and the alarm which his friends experience, will not allow us to fold our hands. I wish therefore to mention the few things which I have found

really useful; and in the first place we will take the gravely threatening acute cases, such as those of the two children in the Belgrave Hospital, who have been already referred to. The boy, aged 6, is a remarkable monument of what the organism will endure from physicians. We were determined to test the power of succus conii to the utmost, and, commencing with 3 vj daily, we got up to 8 *ounces daily of the succus* without producing any more effect than as if so much water had been given. I wish particularly to mention that the preparation was got from three different and first-rate chemists in succession, so that there is no reason to believe that we were employing an inert specimen; indeed, I believe our house-physician proved in himself the physiological activity of the sample of which the patient took 24 ounces in three days. The same result happened with the girl who was under treatment at the same time; however, she never got beyond three ounces of the succus daily.

In the excessively severe case of the boy, we tried not only conium, but bromide of potassium, camphor, ol. morrhuæ, and zinc in large doses, all with only momentary effect. We then tried Jaccoud's plan, which I have found extraordinarily successful in several cases: viz., we sprayed the skin over the whole length of the spine with ether twice daily. I will not positively say that it was *propter hoc*, but I will say that immediately *post hoc* the symptoms greatly amended, and in the course of a fortnight the lad was perfectly free from movements. We kept him in the hospital several weeks longer, in order to re-educate his speech, which was grievously deficient. But by the time he left the house he could speak quite well and manage all his limbs; nothing amiss remained beyond a slight tendency to grimace. The girl, with whom succus conii, camphor, ol. morrhuæ, bromide of potassium, and large doses of zinc had entirely failed, began to improve immediately on taking liq. arsenicalis in 5-minim doses, afterwards reduced to 3 minims. I am convinced that in one of these cases death, and in the other a protracted and very serious illness, were avoided by the use of remedies; and I will just say here that arsenic as an internal remedy, and the ether spray applied to the spine, have given me solid results such as have been obtained by no other remedy. The ether spray stands somewhat intermediate, I suppose, between the ordinary shower-bath and the spinal ice-bags of which so much has been said. Cod-liver oil and iron, however, are very useful in anæmic and generally debilitated subjects. And there is a special class of cases connected with violent ovarian excitement, or complicated with epileptic tendencies, in which the bromide of potassium is invaluable, and is the one remedy.

In the terribly dangerous acute cases of young women, especially where there has been sexual excitement and exhaustion, I believe nothing does any good but free stimulation, regular feeding per rectum, and opium in large doses. I regret to have to express my complete distrust in chloral, and in a host of other remedies that have been proposed.

In the milder stages, and especially with a view to the future bodily and mental health, there are a variety of precautions which ought to be adopted.

Under these circumstances we often get the first considerable improvement by the use of the shower-bath. This old-fashioned and useful remedy is a two-edged weapon, and if employed in cases where the nervous system is too severely disordered and prostrated may produce bad results; but in the milder and more chronic type of chorea it is still worthy of being called a sheet-anchor. It gives that preliminary bracing to the nervous and moral tone, without which we may fail to get a leverage for other treatment. There is no absolute necessity for beginning with cold water, and in delicate subjects it is better at first to use it tepid; but we can soon advance to the cold shower-bath daily or twice daily. The second item of treatment is the training of the muscular system. We can do much more good with this, in most cases, than with medicine, provided that the patient's nutrition is kept thoroughly good. This lesson has been particularly enforced by my colleague Dr. Radcliffe, who always insisted much upon the value of muscular exercises which require rhythmical movements. He used, in Westminster Hospital, to give the choreic children skipping-rope exercise; and this will be found a very useful thing either in the absence of means for more elaborate training, or as introduction to more studied and complicated movements. I may conclude by pointing out the necessity for careful training in speech, where that faculty has been at all impaired, and also of attention to mental education in every case. The mere cessation of the choreic movements ought not to make us consider that we have done our work; it is most important that a judicious system of education should be at once adopted to strengthen the mind, and especially the memory. And although every care should be taken to avoid harsh or unkind treatment, it is very needful that a firm and regular discipline should be established, for anything like slackness or vacillation on the part of the educator is sure to be reflected and exaggerated in the behaviour of a nervously weak child.—*Practitioner, June*, 1874.

Acute Rheumatism.—*Immovable bandages.*—Favorable results are obtained in acute rheumatism, as regards the pain, the fever, and the duration of the disease, by fixing the parts immovably, and so maintaining them not only until all pain and swelling have left the joint, but until the constitutional symptoms have disappeared, and especially until the temperature has returned to the normal standard. This may be effected by means of pasteboard, or for small children and restless patients by plaster of Paris. (Dr. Oehme.)

ON THE USE OF CYANIDES IN ACUTE ARTICULAR RHEUMATISM.

M. Luton of Rheims, in the *Bulletin Général de Thérapeutique*, highly recommends the use of the cyanides in the treatment of acute articular rheumatism. The two cyanides with which he has experimented are those of zinc and of potassium. The first is a white inodorous tasteless powder, insoluble in water, but probably

soluble by the gastric juice. M. Luton administers it in average doses of 1½ grains daily, either in pills or held in suspension in some preparation of gum. The cyanide of potassium is more active; is administered in maximum doses of ffom 1½ to 2¼ grains, and preferably in pills on account of its disagreeable flavour. The pills should be silvered and kept in a stoppered bottle. The cyanide may be taken during or after meals, if there be any advantages in so doing. M. Luton reports many cases in support of the proposed medication.

TETANUS.—*Chloral and Bromide of Potassium.*—In a case of tetanus in a boy fourteen years of age, ten grains of chloral hydrate and twenty grains of bromide of potassium in syrup and water were given every three hours, the case being watched with great care. The next day the same was given every two hours, with the result of procuring four hours' sleep, with diminution of the tetanic spasms. The case went on satisfactorily, and on the fourteenth day the chloral was discontinued, as its action was so marked, but the bromide was continued in ten-grain doses for a few days longer. The noteworthy feature in the treatment of this case is the quantity of chloral taken by the patient, he having taken 1140 grs. in sixteen days (equal to fully 71 grs. a day) in a most acute attack of tetanus, with the result of the spasms leaving him on May 12th, exactly eighteen days from the date of seizure; while in their place the peculiar action of the medicine showed itself in a variety of ways. All kinds of delusions ensued. (Dr. J. B. Carruthers.)

ON THE INDUCTION OF PREMATURE LABOR.

(Abstract of a Clinical Lecture delivered at the Allgemeines Krankenhaus, Vienna.)

Reported by G. Wilds Linn, M.D.

Gentlemen,—I propose calling your attention to-day to the various methods made use of in the operation for the induction of premature labor. The manner of performing an operation so often required at the hands of the obstetrician, and upon which is dependent so much of good or of evil to mother and child, is, as you may suppose, of the greatest importance. It has taxed the ingenuity of the accoucheur for a century, and there yet remains in the mind of the profession much doubt and speculation upon the subject. There are those, it is true, who, by a complication of modern contrivances, claim to achieve brilliant successes, and to make this one of the easiest operations we have to perform. I hold in highest estimation the man of practical mind who makes use of few measures and those the most simple, while, on the contrary, the man with theoretical ideas and a multiplication of means is least to be trusted.

Without risk of incurring the charge of egotism, I think I can say I have had as many opportunities of ascertaining the relative values of the various methods used as any other man living,—certainly as many as any man in Germany; and therefore when I speak upon this subject I assume the right of speaking with some authority.

In considering the methods employed, or any particular method, it is first absolutely necessary that we bear in mind the character of the organ with which we have to do. Suffice it to say that the pregnant uterus and the non-pregnant uterus are two very different organs, and the treatment of these must be correspondingly different. He who thinks otherwise has had but little experience, and errs very much. The uterus of the pregnant woman is an exceedingly sensitive organ, and in all our operations upon it the fewer manipulations we make consistent with the necessities of the case the better.

The old method which was employed when the induction of permature labor was first sanctioned by the profession was the simple opening of the amniotic sac. This plan was for a long period practised, and with very good results. In time, however, it was affirmed that this early draining away of the amniotic fluid was inconsistent with the gradual dilatation of the cervix, and, hence, with the normal progress of labor. Then it was suggested to open the sac higher up at a distance from the os; and this method is still used by some who claim to have thereby good results. In reality this makes no difference in the progress of the case, as the rent made will proceed to the cervix so soon as labor-pains are developed.

The old writers, who entertained different ideas from those we hold concerning the length of the cervix in the latter months of gestation, deviated in time from the original simple plan. The first change made was in the introduction of the trocar with stilette. The danger in using this is at once apparent when we remember that very frequently the cervix lies horizontally in the vagina, so that the point of the instrument, if not carefully introduced, will pass through the posterior wall of the cervix. If force be used, it may not only pass through the wall, but, entering the peritoneal cavity, be made to enter the posterior wall of the uterus, and give exit to the amniotic fluid through the false passage so formed. In such a case, which is far from being impossible, the physician is not at the time aware of the injury he has done, and probably will not be until the death of his patient from parametritis or peritonitis reveals it in a post-mortem examination.

The mechanical dilatation of the cervix by the various speculæ devised for that purpose as a means of provoking labor are entirely disapproved of by me. Some of these speculæ I here show you. These all bear an antediluvian appearance. Some such instruments have been found among the ruins of Pompeii, and, though strongly advocated by some such men as Busch and Krause, are found deficient on trial.

The use of sponge tents has become very popular in late years in this operation. Simpson, who designed the tent, devised it for the non-pregnant and not for the pregnant uterus. That its use here is often productive of most serious if not fatal results cannot be questioned. It is often productive of parametritis, and pyæmic symptoms arising from the absorption of the foul discharges to which it gives rise are of no infrequent occurrence. That it is un-

certain as to time is also true. I have in many cases used it for days before I have succeeded in provoking active labor-pains. Laminaria tents have not been found more efficient than sponge tents, and, like them, will produce dangerous complications. Any foreign body which must so long remain in the cervix is dangerous.

The use of the catheter or flexible bougie I will not allow in my wards under any consideration. Its use has been highly lauded by some, and yet I am sure that here, as is too often the case, the favorable cases are reported, while those that are fatal are never heard from. Like the tent, it is also uncertain as regards time, and I have often used it for many days before delivery was accomplished. It cannot be employed with my sanction, and he who uses it does so on his own responsibility.

The use of injections into the uterine cavity, according to the method of Cohen of Hamburg, is dangerous. Many patients die from such treatment. Injections of water, either simple or medicated, should not be allowed under any circumstances, and would not be allowed by any one who understands the inextensible character of the uterine tissues. The use of cold water under such circumstances is barbarous in the extreme, always giving rise to the most intense pain. I entirely discountenance the use of intra-uterine injections, and hope that no student of mine will ever permit himself to make use of them to induce labor.

Vaginal injection, or the douche, according to the method of Kiwisch, is also most dangerous, and he who thinks differently has had but little experience. It does not act surely or quickly, and an inflammatory process very often results. Death, too, is not an infrequent occurrence from its use. I do not wish to entertain an unfounded prejudice, nor would I express myself so positively if I had not good reasons for doing so. A man, too, should be especially careful in opposing a method which is so popular. The manner in which the douche is applied makes but little difference. Great pain often follows its use,—a fact abundantly established by the histories of cases we have had in this hospital. I am not alone, however, in entertaining this opinion, for very many others who have tested this method coincide with me in this opinion The danger in the use of the douche has not been found very great where the neck of the uterus is conical, the os being small; but where we have reversed conditions—a large cervix with the os somewhat delated—the danger is proportionately increased. Hence the very probable presumption that the difficulty is produced by the entrance of the fluid into the uterine cavity. In this way also air may find a passage into the uterus, and death result from its transmission to the heart through the venous system. That fluid may pass through the Fallopian tubes into the peritoneal cavity is very possible; but I cannot so readily believe that the danger to be apprehended from this is great.

The tampon used by some is not to be recommended. It finds a much more proper place in placenta prævia, for it can be there used to much better advantage than in the induction of labor. Its action in the latter case is very slow and uncertain.

For many years elastic bladders, dilated by air were used by the French, and more recently they have been extensively employed in England for the dilatation of the cervix; but they have failed to give satisfaction.

The injection of carbonic acid after the method of Scanzoni must be placed upon the same plane with the injection of water. Patients will die from its use, with the same symptoms and having the same post-mortem appearances as if they had suffered from the inhalation of the gas.

Suction of the mammæ for the purpose of inducing labor is entirely untrustworthy as generally practised. If persevered in until the desired result were effected, mastitis would certainly be a consequence.

Faradization as signally fails as suction of the mammæ, and cannot be relied upon. For many years I have had abundant opportunities to practise all these different methods, and now have an idea of what is right. Under no circumstances whatever will I allow myself further to experiment. The plan which I here pursue I have found upon a long and faithful trial to give better results than any other. This is nothing more than the practice of the original method, consisting in the employment of a pointed quill, or, what will answer the same purpose, a steel pen. This method, besides having the advantage of simplicity, is always applicable, as the instrument is ever at hand. The point of the quill is placed upon the palmar surface of the index-finger, which is then passed up to or through the cervix, and the membrane punctured. An improvement on this plan consists in making an opening in the side of the quill through which a sound can be introduced. The point of the quill is then brought into close apposition with the body of the sound. The latter is then passed through the cervix, the quill being kept in position, and when the desired distance is reached the sound is withdrawn, leaving the quill behind, and the puncture can be made. In this manner we overcome the difficulty of passing the projecting angle of the posterior wall of the cervix.

By this method no damage can result, and a long narrow cervix can be readily passed. As the amniotic fluid drains away, pains are induced, the head passes down, and in twelve hours delivery can generally be accomplished.

A NEW ANTISEPTIC.

Concerning the Antiseptic Properties of Salicylic Acid, by Prof. Kolbe, of Leipzig.—*Schmidt's Jahrbucher.*

Translated by J. TRUSH, M.D., Cincinnati.

The author starts out with the remark, that the only published observations respecting the "physiogical" properties of salicylic acid, were those of Betagnini several years ago. According to this author, salicylic acid, when administered in large doses (one to one and a half drachms in two days), produces ringing in the ears; in its passage through

the system, a part is decomposed and converted into salicylous acid, while another portion appears in the urine unchanged.

Certain experimental observations by Prof. Kolbe have demonstrated that the salicylic acid, if given to the amount of five grains at a dose, can be detected in the urine within two hours after administration, and continues to be present in this excretion twenty-four hours thereafter.

The known fact, that salicylic acid can be readily produced, synthetically, from carbolic acid and carbonic acid gas, and is decomposed at a boiling temperature and converted into the two compounds just named, led the author to infer that it might be possessed of properties similar to those of carbolic acid, an inference the correctness of which the following experiments would seem to substantiate.

1. To a watery solution of amygdalin a little salicylic acid was added, thoroughly mixed, and the mixture incorporated with an emulsion of sweet almonds, and set aside in an open vessel, together with an other vessel containing a like mixture of amygdalin and emulsion of sweet almonds, but without the salicylic acid. After a lapse of two hours the latter emitted a strong smell of oil of bitter almonds, while the former was entirely free from this odor. Further experiments proved that the odor of the oil of bitter almonds would appear in these mixtures in the course of several hours, if the quantity of the acid added was very small, but could not be detected even after twenty-four hours when somewhat larger quantities of the acid had been employed.

2. Whenever mustard meal is mixed with warm water, the mixture in a few minutes gives off a strong smell of oil of mustard. Now the addition to such mixture of a small quantity of salicylic acid entirely prevented the developement of this odor.

3. The addition of a little salicylic acid, (less than one part per thousand) to a watery solution of grape sugar, entirely prevented fermentation, the ferment evidently having been destroyed. Or, if added to a solution of grape sugar already in a state of fermentation, this process was speedily arrested.

4. Five different vessels, — glass jars — were charged, each with a quart of beer, of good quality. To four of these salicylic acid was added and in the following quantities: to No. 1, three grs.; No. 2, six grs.; No. 3, twelve grs.; and to No. 4, eighteen grs.; the fifth jar receiving no acid. The jars were then set aside, loosely covered with paper and exposed to a temperature, ranging between 68 and 75 degrees F. The beer in jar No. 5, containing no salicylic acid, commenced to spoil on the second day of exposure already, and the surface of the liquid was being covered with mold. Jar No. 1, with three grains of the acid, showed traces of this fungoid vegetation on the third day; No. 2, with six grains, on the fifth day; No. 3, with twelve grains, on the tenth day, while the quart of beer in jar No. 4, with eighteen grs. of the acid, was entirely free from this vegetation, even after twelve days of exposure. The beer was, of course, sour, but the acid, in the proportion of about one part per thousand, had entirely prevented the development of the fungus.

5. Pure fresh cow's milk, with an admixture of 0.04 per cent of salicylic acid, was exposed in an open vessel for 36 hours to about the same temperature as above. At this time it coagulated just as milk without the acid would do. If, however the quantity of acid was slightly augmented, the souring and coagulation was retarded considerably beyond 36 hours. Milk holding a small quantity of the acid in solution retains completely its normal taste, the little acid being altogether inappreciable to the sense of taste.

6. The author prepared some pieces of fresh meat by rubbing small quantities of the acid into the surface. Thus treated the meat retained sweet and sound for weeks, though exposed to the open air. Before using such meat the greater part of the acid can be removed by washing or rinsing off with water; that which remains after such washing or rinsing can scarcely be detected by the sense of taste; probably because the taste of the acid is not very pronounced, being of a faintly sweetish character, and not all disagreeable. The experiments to determine the value of salicylic acid as a preservation of fresh meats for considerable periods of time, are not yet complete; should they furnish favorable results, much of the meat which at present is converted into extract might be preserved in its natural state at very small expense. At some future time Prof. Kolbe promises to publish the results of his experiments respecting the preservation of eggs, by means of this substance.

The usefulness of salicylic acid as an antiseptic for surgical purposes has not yet been fully ascertained. Prof. Thiersch gives the following as the results of his experiments with this substance on patients in the surgical wards of the Jacobs Hospital in Leipzig; Salicylic acid,—pure or mixed with starch,—sprinkled upon ulcerating cancerous surfaces, or sloughing sores, destroys, for a considerable length of time, all offensive smell, and without giving rise to any noteworthy amount of inflammation. Solutions composed of one part of salicylic acid; three parts of phosphate of soda and 50 parts of water, applied to granulating surfaces, markedly accelerate the healing process.

A number of operations were performed under a spray of salicylic acid and water (1 part of the acid to 300 parts of water), the wounds were subsequently dressed with wadding soaked in said solution and kept moist by means of a syphon-drop, about eight drops per minute falling on the dressings. The results thus obtained were very satisfactory; an amputation of the thigh, performed after this method, was not followed by either pain, fever, or swelling; and the dressings, which were removed for the first time on the sixth day after amputation, were free from offensive smell; the amputation wound it was found, had almost entirely healed, a few small points only being still open.

Equally favorable results were obtained in a case of amputation of the arm and another case of resection of the arm. It was observed in this connec-

tion, that whenever salicylic acid was kept in contact with open wounds, it speedily appeared in the urine.

Possessed of such properties, this substance, Prof. Kolbe claims, is entitled to a place on the list of really useful articles of the materia medica, and deserving of further and even extended trial.—*Cincinnati Medical News.*

BABIES' SORE EYES.

BY HENRY W. WILLIAMS, A.M., M.D.,
Professor of Ophthalmology at Harvard University.

The accoucheur has scarcely begun to congratulate himself on the favorable progress of his case after delivery, when, in many instances, the appearance of ophthalmia in the new-born infant renews his anxieties. The suddenness of the attack, the severity of the symptoms, the delicate state of the mother and child, —making it impossible, in most cases, to have other advice than that of the attending physician,—and the immediate and obvious consequences of his skill or of the want of it; these conditions combine to render such cases of grave importance.

From some cause, this disease has seemed to be more than usually frequent and virulent during the last summer and autumn, and I have been urged to say something in the JOURNAL about it and its management.

No case should be neglected, when there is even a slight discharge from the eyes of the young infants; a mild form of conjunctivitis, however, is often met with, marked by slight redness of the lining of the lids and a little mucous secretion, which requires only frequent cleansing of the eyes with tepid water and the use of simple ointment along the edges of the lids to prevent their adhesion at night; or, at most, the putting into the eyes, three times a day, a few drops of solution of two grains of alum or four grains of borax in an ounce of water. These are the cases in which nurses think they accomplish such wonders by spirting into the eyes a stream of breast-milk: a waste of valuable material, but a procedure which does no other harm than to render the nurses self-confident, and to lead them to fatal reliance on the same means in cases of the more severe form of disease. This mild inflammation is apparently often caused by strong soap, or other acrid or irritating substances, rubbed into the eyes at the first cleansing of the child; cold and dampness are also causes. The same agencies *may* sometimes induce the more virulent disease which is the subject of this paper; but it is probably most often due to infection of the eyes, during birth, from vaginal or urethral secretions. This is made probable by the limitation of the time within which the first symptoms appear; for if the severer form of disease were often produced by the action of externa irritants, it would show itself at various periods, as a result of the continued carelessness of mothers and nurses, whereas it seldom begins later than ten days after birth, usually much sooner.

The form of purulent conjunctivitis known as ophthalmia neonatorum, or ophthalmia of new-born infants, generally begins from the third to the sixth day after birth, a slight red streak on the skin along the middle of the upper lip being sometimes observed as a premonitory symptom before any discharge from the eyes is noticed. If the lid is drawn open, its lining is seen to be red and velvety, and a slight mucous secretion is found. In a few hours the lids may become enormously swollen and livid, the upper lid sometimes completely overlapping the lower and resting upon the cheek. The conjunctiva lining the lid becomes greatly tumefied and its surface granulated, and inspection of the eyes becomes impossible without the aid of an elevator. When by the help of this instrument the eye is seen, the conjunctiva of the eyeball is found to be in a condition similar to that of the inside of the lids. The secretion from the conjunctiva rapidly assumes a purulent character, and the quantity is very large, a teaspoonful perhaps accumulating in an hour's time. If this condition is not soon changed for the better, the defective nutrition, the pressure of the swollen lids, and maceration in the unhealthy secretion cause haziness of the cornea, and then ulceration and perforation; followed usually by hernia of the iris and perhaps loss of vision.

Two opposite and equally fatal errors of treatment are unhappily prevalent. On the one hand, nurses frequently regard babies' sore eyes as a slight matter, and neglect to call the attention of the physician to the early symptoms, relying on the breast-milk as an infallible cure. Then, when the increased swelling of the lids makes the use of this means impossible, they are too often ready to apply an alum curd or a poultice, "to draw the inflammation," thus greatly increasing the danger of ulceration or sloughing of the cornea. On the other hand, the physician, unfamiliar with these cases, and alarmed at the intensity and duration of the symptoms, feels that the latter must be subdued by active treatment, and may employ caustics or stimulants adapted to disease of the same tissues in adults, but not well borne by the infantile subject.

Of all curative means the *most important is constant cleansing of the eyes.* This should be repeated according to the amount of the discharge, every two hours, every hour, or even every half-hour during the day, and once or twice at least at night, until the diminished secretion and lessened thickness of the lids allow of a less frequent repetition. The lids may be opened with the fingers of both hands by the nurse, whilst another person pours in tepid water from a spoon or sponge. If the lids are greatly swollen this becomes impossible, and a syringe must be used, which should be perfectly clean, and have a smooth and not too sharp point. Its nozzle to be gently passed under the edge of the upper lid, and the contents injected so as thoroughly to wash out the palpebral cavity. This must be done often, as already advised, for it must be borne in mind that the continuous soaking of the cornea in the copious purulent discharge seems to soften its texture and prepare the way for ulceration. Special care should be taken, in cold weather, to make the water so warm that the child may have no shock, and thus to avoid its cry-

ing, as the thickened lids are often everted when the child cries. Should this evertion occur, the lids are to be replaced as gently as possible with the fingers. A little simple ointment should be used along the edges of the lids, when the child sleeps, to prevent agglutination and give opportunity for the free escape of the discharges; as also to protect the external skin from excoriation.

If these means are gently used, the child is not much disturbed, and soon falls asleep after them. These measures for securing cleanliness appear to be sufficient for the cure of many even severe cases; but I think it safer, where the symptoms are formidable, to alternate with the injections of water the use of a mild astringent, as, for instance, a solution of five grains of alum in an ounce of water. This should be applied in the same way, and should be warmed if necessary. A solution of crystals of borax, of the same strength, may also be used. These are the best collyria for these cases; but a solution of sulphate of zinc, a fourth or a half of a grain in an ounce of water, may sometimes be serviceable. Any *strong* astringent solutions, or *any* solutions of nitrate of silver, acetate of lead, or corrosive sublimate; the introduction beneath the lids of mercurial or nitrate of silver ointments; the application of the crayon of nitrate of silver, pure or mitigated with nitrate of potash, or of the crayon of sulphate of copper: all these *should be avoided*. Cases may perhaps do well where these have been employed, especially if great care has at the same time been taken as regards cleanliness of the eyes; but they are dangerous remedies. Moreover, they sometimes evidently cause agonizing pain; and there is great risk that the mother, unable to bear the dreadful sight of her infant's sufferings may, refuse, unless the physician has established the strongest hold upon her confidence, to continue so harsh a treatment, and may place the child probably in less skilful hands, though blaming the doctor if the eyes are lost.

The condition of the cornea must be closely watched, and the lids must be raised for this purpose, by means of an elevator. If unprovided with such an instrument, the physician may form one by bending the end of the handle of a spoon, with which he can draw up the lid; or he may perhaps effect his object by using a broad hair-pin, bending the rounded end in the same way. Any central cloudiness or ulceration of the cornea would indicate the use of a drop of a solution of sulphate of atropia, two grains to an ounce of water, put into the eye once daily, or oftener, and continued while any cloudiness remains. Should perforation of the cornea take place, hernia of the iris may perhaps be prevented by its use, and if the opening is small and is promptly healed, good vision may be preserved. The physician should not relax his vigilance until the symptoms are much improved, as the cornea sometimes yields unexpectedly, under the effects of the long continuance of the disease, even in its later stages and after its force is apparently spent.

Every pains should be taken to secure good nutrition for the child. Without exposing it to cold, the air of the room should be renewed. The light should be moderated, so that the child may open its lids when they are not too much swollen, and thus permit the discharge of the secretions. The child will not open its eyes if the room is too light or too dark.

The prognosis of this affection is favorable, even in the severest cases, if treated promptly and diligently from the outset; and I once more urge use of the simpler remedies as unquestionably the best. But if ulceration or a sloughy condition of the cornea is already present when treatment is begun, the result is often unfavorable, whatever means may be employed. Yet we need not wholly despair even where these conditions exist, as the eye will sometimes recover with at least partial vision.

A most important part of the physician's duty is to take every precaution against contagion. A minute particle of the morbid secretion may convey the disease to the eye of a healthy person. The attendant should therefore direct the thorough cleansing or destruction of all articles soiled with the purulent discharge; great care in using the syringe, so that no drop of the injection may be thrown back from beneath the lids into the eye of the nurse; and immediate washing of the hands whenever they have toched the sore eyes or anything contaminated by them. *Boston Medical and Surgical Journal, January* 28.

ON THE TREATMENT OF SUSPENDED ANIMATION IN NEW-BORN CHILDREN.

NOTES OF A LECTURE AT THE HARVARD MEDICAL SCHOOL.

BY CHARLES E. BUCKINGHAM, M.D., *Professor of Obstetrics.*

With some obstetricians, the condition of the newborn child, compared with that of the mother, is of secondary consequence. I confess it is so in my estimation. This is a matter which depends upon the religious views of different individuals, and of course is not to be here discussed. Both the mother and the child require attention, and you can oftentimes give directions for the benefit of the child while you are making the required pressure over the uterus which has just expelled it.

Sometimes the child cries lustily as soon as it is expelled. Sometimes it gasps feebly, with long intervals between its respirations, which may of themselves become more frequent and stronger, or less frequent and more feeble. It may come into the world blue and flabbly, and without a visible sign of life. If there be beating of the umbilical cord, however, there will almost certainly be a gasp, and that gasp may be repeated: or if not repeated unaided, your assistance may restore the child to life. Even if there be no pulsation to be seen or to be felt, you may in some cases hear it by putting your ear over the heart. You need not trouble yourselves about a ligature upon the cord; make the child breathe. And for this end it is not worth while to spend time in trying the Marshall Hall method; you have a chest to deal with which has never been expanded, and a pair of lungs which have never been inflated. Send for a couple of pails of water, one cold and the

other rather warmer than it would be comfortable to take an entire bath in. A child who has never breathed, if rapidly dipped in these alternately a few times, will often cry audibly. But you must not wait for the pails of water before trying other measures to make the child breathe; if you do, it will be just so much neglect. With a dry rag over your little finger, thoroughly wipe the mucus from the fauces: that operation alone will make some children cry. Take the child up in a dry towel, or a pocket-handkerchief if you have one at hand, or in anything which will keep it from slipping from your grasp; hold it with the scapulæ in the palm of your left hand, the finger and thumb embracing the occiput, which should be firmly pressed backwards: the finger and thumb of the right hand should close its nostrils. Apply your mouth to that of the child and try to inflate its lungs; you need not fear that you will blow too hard; indeed, unless you place a moderately dry cloth between the child's mouth and your own, you will find it difficult to inflate at all. But why press the head forcibly backwards? Because in so doing you close the passage of the œsophagus; and should you neglect that precaution, you would find the stomach inflated instead of the lungs, and a new obstacle thus put in the way of the child's breathing, by your own carelessness.

You should inflate the lungs ten or fifteen times in a minute; and the process should be continued as long as there is the slightest possibility of life. The occasional alternate dipping will help your efforts. In some cases, a rapid and more forcible pulsation of the heart is felt by you upon your very first insufflation, and this, as a rule, will be repeated and increased in strength with every succeeding attempt, until as you take your lips away you will each time see the child gasp, open its eyes, heave its chest, and at last cry. The color, which has been leaden and dull, becomes of a positive red. The points upon which you placed your fingers, before the operation, became white, and remained so long enough for you to count twenty or more; but now the color returns more and more rapidly, and you will find, as the child's respirations become independent of your aid, that the color returns almost immediately on the removal of the pressure.

Be sure that all chance of life is gone before you stop your exertions; I have known an infant, who was laid aside in a sheet as dead by one of our profession, to live to adult age. So long as the breathless child is cool, if pulsation exists even to a slight degree, life is still possible. Excess of heat to such a child will diminish its chances for life. Why, then, you may ask, do I dip it in hot water, as well as in cold, to make it breathe? Simply as a stimulant to its skin. It is not to be left in the hot water an instant; it is dipped in hot water for the same reason that I would spank it, or slap it with a wet towel, the object being to irritate its nervous system and make it cry.

If you will now simply wrap the resuscitated infant in a blanket, and leave him without washing or dressing or food for a few hours, he will be better off than if you weary him with further attentions.—*Boston Medical and Surgical Journal.*

CROUP AND DIPHTHERIA.

Sir Wm. Jenner has published during the month (*Lancet*, Jan. 2 and 19) a "Clinical Lecture on Croup and the Diseases that resemble it." It is full of instruction put in the simplest form. To give a summary of it is almost impossible, from its condensed form; we therefore select some points that deserve the special attention of the profession, and state Sir William's views in his own words:

It was once supposed that membranous inflammation of the larynx was peculiar to children. It is now known that it is not so. It occurs, not so very unfrequently, in persons of advanced life. Diphtheria is an acute specific disease attended by inflammation of the pharynx, having as its result exudation of lymph. It is a specific inflammation arising from a specific cause. The specific inflammation in diphtheria has a tendency to spread, to spread over the pharynx in all directions, to pass upwards to the nares, downwards to the larynx, and, in rare cases, to the œsophagus and stomach. From the pharynx it may spread down the trachea and into the bronchi. So that in diphtheria we get, not unfrequently, membranous inflammation of the larynx. But membranous inflammation of the larynx, I have told you, is croup. Is there, then, a membranous inflammation of the larynx distinct from the acute specific disease diphtheria? Are there a true croup and a diphtheritic croup? Certainly, if you were to place in the hands of the best pathologist the larynx of a child who had died from membranous inflammation of the larynx, the so-called idiopathic croup, and that of one who died from a true diphtheritic inflammation of the larynx, he would be unable to distinguish the one from the other. There is no anatomical character by which he could say, "This is true croup; this is diphtheritic inflammation of the larynx." If, however, the pharynx was also found to be the seat of exudation of lymph, he would say, "This is undoubtedly diphtheritic inflammation of the larynx." But it is beyond question that true diphtheritic inflammation may be limited to the larynx; that, in exceptional cases, the pharynx escapes the exudation. Seeing, then, that there are no anatomical characters to distinguish the one disease from the other, are there any clinical characters by which the two affections may be separated? It has been supposed that the presence of albumen in the urine would be sufficient, and I formerly laid much weight on this distinction. But later years have satisfied me that in cases which present all the characters of true croup, which are sporadic, spread to no other person in the house, come on apparently from exposure to cold and damp—that in such cases albumen may be present in the urine. It has again been urged that true croup has no tendency to spread; but this manifestly should no more separate a single case from the diphtheritic croup than should a single case of scarlet fever, because it did not spread, be separated from other cases of scarlet fever. The cause, again—the fact that some cases of croup came on after distinct exposure to cold and wet—cannot be sufficient to separate croup from diphtheritic croup, for it is beyond question

that a considerable number of cases of diphtheria do, to all appearance at least, date their origin from exposure to cold and wet. I have seen several solitary cases of true diphtheria thus originating; not spreading, or spreading, to other persons in the house, as the case may be. So my opinion has undergone some modification, and I am inclined now to the belief that there is no such disease as idiopathic, simple, membranous inflammation of the larynx. I say I am inclined to this belief. I am not sure that it is true; but as I formerly thought that the weight of evidence was in favour of their non-identity, I am now inclined, from my further experience, to think that the two diseases are really identical, that the so-called croup is really diphtheria.

Membranous inflammation of the larynx is one of the gravest diseases; it kills rapidly. If the termination be fatal it usually is so within a few days from the outset; rarely does the disease last a week, supposing that the windpipe has not been opened. The disease is usually preceded by uneasiness in the pharynx, sometimes by well-marked evidences of diphtheria; often, however, the pharyngeal symptoms are trifling, and the gravity of the illness is only appreciated when the child wakes in the night with croupy breathing—that is, with rough, hoarse, loud, lengthened respiration. The difficulty of inspiration is due to two causes. At first it is due to the swollen condition of the mucous membrane, and also largely to the superadded spasm. Subsequently it is due to the false membrane narrowing the passage, and also largely to the superadded spasm. The paroxysms of difficulty of inspiration from which the patient suffers are due to the spasm. The disease is attended by a certain amount of febrile disturbance, and there is a little uneasiness in the larynx, perhaps some pain and tenderness. The lymphatic glands adjacent to the larynx are commonly enlarged and tender. (They require to be felt for.) There is hoarse, rough cough, with expectoration of at first a little glairy mucus, and subsequently pieces of false membrane—that is, of tough lymph.

To avert death in cases of membranous exudation into the larynx we open either the larynx or the trachea; the trachea in a child; the larynx in an adult. We select the larynx in an adult because of the facility with which it is reached. We are driven to open the trachea in a child because the larynx is too small to admit the tube. The opening into the windpipe still further interferes with the power of coughing. The patient in croup is, as I have said, unable to close his larynx well; still he can close it to a certain degree, and he is able to cough to that degree. The tube of course he is unable to close, and hence acrid matters about the tube are more liable to be drawn downwards, and therefore to become impacted in the lung, to produce pneumonia, and, in their passage downwards—so acrid is the matter—to produce bronchitis. It must be remembered that the inflammation extends downwards, not merely because the inflammation itself has a tendency to spread, but because the matter thrown out is acrid, and has a tendency to produce inflammation, which, in the constitutional state of the patient, will be a membranous inflammation. Thus. in some cases of diphtheria, the ear is the seat of membranous inflammation, and acrid matter as well as lymph is poured out. It runs down the outer side of the ear. As it passes down it excites inflammation, and the inflamed surface becomes covered with a false membrane. That this false membrane is not the result merely of extension of the inflammation is probable from the fact that if a blister is applied to a person suffering from diphtheria, the raw surface frequently becomes covered with lymph, with a false membrane, with a diphtheritic exudation. You will thus understand that the fluid exuded is an irritant; that this irritant produces inflammation; that the inflammation in the constitutional condition is attended with an exudation of lymph. It is a specific inflammation, because the person is suffering from a specific disease, just as when a person is the subject of constitutional syphilis, the local inflammations assume frequently a syphilitic character, or in the subject of cancer, local injury may cause changes of texture cancerous in nature.

This leads me to a point of some practical importance in regard to tracheotomy. It is commonly stated that the bronchitis which so frequently follows tracheotomy in diphtheria is the result of the entrance of the cold air through the tube. It is said that in ordinary breathing the air is warmed as it passes through the mouth and nose and the pharynx and larynx, and so it is warmed air only which comes in contact with the bronchial tubes; that the entrance of cold air excites inflammation, and hence that many patients operated on for tracheotomy in croup die from bronchitis. To prevent this entrance of cold air, and I should say also of dry air, the patient's bed is surrounded with blankets, and a tube discharging moist vapour is introduced within the blanket-curtains, so that the patient may breathe a warm and moist air.

It seems to me that if the explanation I have given you be correct, there is no need for these special means—for these blankets and hot vapour. We know that if the larynx be opened for any other affection—for example, such a case as we have now in the hospital—there is no tendency to the occurrence of bronchitis, and the patient walks about and breathes the ordinary air, with very little protection, and without danger. A little protection may be necessary. Not only are these special means unnecessary, but in the disease diphtheria they are most injurious. They are most injurious because they tend to produce that exhaustion which is the cause of the fatal termination in so many cases during the second week of their illness. The relief which the patient experiences when you remove all this apparatus is marked. You must have seen it in the women to whom I have referred. Thus you will understand that I think it most important for the success of the treatment of croup, should tracheotomy be performed, that the patient should be kept in a moderately warm atmosphere, a moderately moist atmosphere, but an atmosphere only so moist as may

be produced by a kettle on the fire throwing a little moisture into the room, only so warm as shall be agreeable to the patient. I am sure that I have seen cases terminate fatally that would have recovered had they not been thus over-nursed, over-cared-for; had, that is to say, the origin of the bronchitis been properly appreciated.

INEBRIATION (*New York Medical Journal*, October, 1874).—Dr. T. D. Crothers, after considering the physiological and pathological effects of alcohol, arrives at the following conclusions:

1. Alcohol diminishes and destroys nerve-force, tending to develop paralysis of motor and functional activity.

2. Inebriety is a disease of certain parts of the brain, and of the nutritive functions which it controls.

3. This disease is provoked by alcohol in variable quantity, depending upon some unknown condition of the body at the time of exposure.

4. A weakened will-power, and mental aberration, and tendency to inebriety, not inherited, are manifestations of disturbance of the co-ordinating power of the nutritive function.

5. This disease is inherited, and exists as an alcoholic diathesis, which may spring into activity, remain latent, or develop into other irregularities and functional disease.

6. Inebriety is the active cause of many of the nervous and functional diseases of the brain.

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EDITOR:

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MONTREAL, FEBRUARY, 1874.

We have to thank many of our subscribers who during the past month have remitted the amount of their subscriptions. We duly appreciate their thoughtfulness, and thank them sincerely. Will others follow their good example.

THE LATE WILLIAM SUTHERLAND, M.D.

The announcement which we made in our last issue of the death of Dr. Sutherland would be received with sorrow by every reader of the *Record* who knew him. He was universally respected both by the public and the profession, and his death leaves a blank in the medical circles of Montreal which will be extremely difficult to fill. A man of rare genius, of great general knowledge, well read in every department of his profession, liberal and enlightened in all his views—his death is a public loss. As a lecturer on the subject of chemistry the mysteries of which he unfolded to many hundreds, if not several thousands of students, during his long career. As a College professor he was perhaps excelled by none other, and equalled by very few. Gifted ever with a ready flow of language, he was able to throw around even the dullest portions of chemistry an interest which always won the attention of students. Dr. Sutherland graduated at McGill College, in May, 1836, his inaugural dissertation being on asphyxia. He almost at once proceeded to the Niagara frontier and began the practice of his profession. Although much success attended his start in life, inducements were offered him, and about 1841 he returned to Montreal and began practice. In the autumn of 1843 he made, so to speak, his first public appearance, having with several other gentlemen organised, *The Montreal School of Medicine and Surgery*. Of those associated with him in the organization of this School Dr. Munro alone remains. The opposition which this School met with called from Dr. Sutherland in his first introductory lecture the full vigor of his pen, and perhaps to this day this lecture remains the best evidence on record of his powerful mind and strong determination. The hard work which was entailed upon Dr. Sutherland in this School of Medicine will be understood when we state that he lectured two hours daily, one hour in French and the other in English, on the subject of Chemistry. He was also one of the organisers of an institution that had a brief existence, viz., the Montreal Provident Dispensary. In the year 1849 he was induced to accept the Chair of Chemistry in connection with McGill College, and up to the year 1866, when failing health compelled him to economise his labor, he filled the position of Professor of Chemistry in that University, not only with satisfaction to the Governors, but with delight to all his students, who loved, revered and respected him. In 1844, Dr. Sutherland, in conjunction with Dr. Francis Badgley, published and edited a monthly medical periodical called the *Montreal Medical Gazette*, we believe the first English medical periodical ever published in Montreal. It only existed, we understand, for one year, but its pages are to-day intensely interesting to any one interested in the medical politics of Montreal. The Editorials from the pen of Dr. Sutherland are easily recognized and so bitter are some that one might fancy he had dipped his pen in gall. But bitter as he could be and was in his writings, yet with all there is evidence that the

writer had not forgotten he was a gentleman and a member of a noble profession. In this publication we notice that the idea of an organization of the medical profession of Canada, into a society was discussed, but, owing to the difficulty of travelling in those days, it does not seem to have been taken up. Dr. Sutherland, however, still kept it in view, and, in 1850, we find him bringing it before the Medico-Chirurgical Society of Montreal for discussion. The result of this action of his was the appointment of a committee, consisting of Drs. Badgley, Sutherland and David (Dr. David alone now surviving) to submit to the profession in Canada a prospectus of the object to be attained by the formation of an association to be styled The British American Medical and Surgical Association. Nothing seems to have resulted from this committee, and it was not till 1866 that Dr. Marsden, of Quebec, again agitated the matter, and through the Quebec Medical Society brought the profession together, resulting in the formation of the first Canadian Medical Association. Dr. Sutherland was for many yeors one of the Physicians to the Montreal General Hospital, but about 1861 he retired upon the Consulting Staff. Although Dr. Sutherland relinquished his professorial duties in 1866, being at that time elected Emeritus Professor of Chemistry, he continued to follow his strictly professional duties till Dec., 1872, when he announced his retirement from general practice, and his intention of devoting himself to consultation practice. Of this latter up till last spring he had as much as his gradually failing strength would permit him to attend to. By last mid-summer, very reluctantly, his many professional friends saw him withdraw from consultations also. From that time, he attempted to get such comfort as his disease would allow him, and surrounded by his family and numerous friends he patiently waited his Master's summons. Early on Tuesday morning, the 9th of February, it came and he passed peacefully to his rest in the sixtieth year of his age. His disease at first seemed to be purely laryngeal, induced by the accidental inhalation of chlorine gas in his class-room; but whatever it may have been originally, it a few years ago developed into tubercular phthisis of a very chronic character.

At a meeting of the Medico-Chirurgical Society of Montreal, held on the 19th of February the following resolutions relative to Dr. Sutherland's death were adopted.

Moved by Dr. Hingston, and seconded by Dr. Francis W. Campbell, and

Resolved: 1. That this Society desires to place on record the great loss which it and the profession at large have sustained by the death of their late friend and associate, William Sutherland, M.D., whose high attainments and noble qualities enabled him to attain the first rank among the profession in Montreal.

Resolved: 2. That in his death the profession have lost a most valuable member; one kind and ever ready with sound advice, assistance and encouragement to his junior brethren, and to his patients an excellent physician, a valued friend and counsellor.

Resolved 3. That this Society desires to extend to the bereaved family of the diseased their most heartfelt sympathy in the irreparable loss which has befallen them.

Dr. Hingston in moving the above resolution spoke warmly and affectionately of him who had gone to his long home; of his kindness and gentleness and of the extremely delicate way which he had acted towards the profession, on his retirement from general practice refusing to recommend who his successor should be. In this he recognized that spirit of fairness towards his professional brethren which was characteristic of Dr. Sutherland.

Dr. Francis W. Campbell, in seconding the resolution, alluded to the love felt for the deceased by all who knew him, to the great interest he constantly evinced in those who had been his pupils, and to his keen sensibility of avoiding anything which could be looked upon as unjust to those who were, like he was once, struggling to gain professional position.

Dr. Reddy spoke feelingly of the blank which his removal had caused, and of the kindness of heart which ever characterized all his actions. Other members feelingly alluded to the event, and the Society adjourned.

TO CORRESPONDENTS.

J. W. M., Montreal. Your letter has been received. The article you allude to will in all probability receive some notice in our next issue.

P. O. G. Warkworth, Ont. Thanks for your good opinion as to the practical character of the Record.

Dr. W. H. Arthur, Ont. Will see that the *Record* is sent regularly in future.

Dr. W. Oakville, Ont. Sent the statement as desired, but have not heard from you since.

THE CHEMISTRY OF MILK.

Dr. Cameron, the city analyst of Dublin, communicated lately to the Royal Dublin Society some interesting researches which he has made with reference to the chemistry of milk. He pointed out

that the white colour and opacity of milk were not due, as was commonly stated, to the liquid being a fatty emulsion, but that they were owing to the fact that the fat globules in milk were invested with a caseous solid membrane which reflected light. By appropriate treatment all the fats of butter could be extracted from milk, and yet the residue would retain the characteristic appearance of that fluid. Buttermilk, which contained only 0·5 to 0·7 per cent of fat, was yet a perfectly white liquid. In milk there were fat globules without investing membranes, but they were not numerous. The solids in cow's milk never sank below 12 per cent. in the case of town dairy cows, or 11·5 per cent. in the case of farm cows on poor pastures. In Dublin milk of average quality, and when pure, the solids averaged 13 per cent., and the fats 4·1 per cent. From ten analyses of Irish mares' milk, Dr. Cameron concluded the average composition to be—Water, 90·0; butter, 0·90; cheesy matter, 1·92; sugar, 6·78; mineral matter, 0·40—100. Sow's milk he found to be extraordinary rich, and to contain water, 81·72; butter, 5·66; cheesy matters, 7·06; sugar, 4·60; mineral matters, 0·96—100. It showed no cream on standing.

LOCAL USE OF HYDRATE OF CHLORAL.

Dr. Heron Watson has been lately making extensive trial, in his wards in the Royal Infirmary, Edinburgh, of hydrate of chloral as an antiseptic and disinfectant. It is used in the form of an aqueous solution of about five grains to the ounce, and also as an ointmont combined with paraffin, white wax, and almond oil. It answers the purpose admirably, and is found to be a non-irritating application, while at the same time it cleans and heals sores, and keeps down the bad smell. It is also being tried as a preservative solution for pathological specimens, and appears likely to be very useful for that purpose; but there has not yet been sufficient time to test it thoroughly.

AN ADVERTISING DOCTOR IN 1700.

The *Flying Post*, January 6, 1700, contains the following advertisement: It presents an idea of the medical practice of that date perhaps but little understood.

"At the Angel and Crown, in Basing-lane, near Bow-lane, liveth J. Pechey, a Graduate in the University of Oxford, and of many years' standing in the College of Physicians in London: where all sick people that come to him, may have for sixpence a faithful account of their diseases, and plain directions for diet and other things they can prepare themselves. And such as have occasion for medicines may have them of him at any reasonable rates, without paying anything for advice. And he will visit any sick person in London or the Liberties thereof; in the daytime for two shillings and six pence, and anywhere else within the bills of mortality for five shillings. And if he be called in by any person as he passes by, in any of these places, he will require but one shilling for his advice."

In the *Practicioner*. Dr. Anton Ewald describes a case where vomiting of much acid fluid occurred on alternate days, with the expulsion, from the mouth and anus, of great quantities of combustible gas, which burned with a yellow flame when lighted. The inflammable nature of the gas was first discovered by the patient, who, when lighting a cigar, found to his surprise that his eructations took fire. Chemical analysis showed the gaseous eructations to consist of a mixture of carbonic acid, hydrogen, oxygen, nitrogen, marsh gas, and a little olefiant gas. On examining the contents of the stomach it was found that lactic acid and butyric acid fermentation had been going on in the stomach at the same time as alcoholic fermentation.

TORONTO EYE AND EAR INFIRMARY.

We have received the seventh annual report of this Institution, which seems to be doing a good work. During the past year 81 persons were received into the Infirmary as in-door patients, the largest proportion of them coming from outside of Toronto. Mr. Langmuir, the Government Inspector of Hospitals, reports very favorably on the Institution. We, however, question much the wisdom of his giving, and of the surgeons of this charity publishing a certificate of competency from him, as is done in the following paragraph, copied from page 17: "Whether in respect of the wonderful character of the operation, the quickness of performance, and the skill and ingenuity exhibited, the operation reflects the utmost credit on the surgeons." We always thought the duty of Inspectors appointed by Government was to examine not only the internal economy of hospitals, but their sanitary state. We never before imagined that they were required to report on the skill and competency of the attending physicians and surgeons.

PERSONAL.

Dr. Hingston has just been elected Mayor of Montreal, by a majority of 4,000 over his opponent. Dr. H. is the first member of the medical profession who has occupied the Civic Chair since the retirement from it of the late Dr. Wolfred Nelson some seventeen years ago. We have no doubt but that our confrere will ably and honorably fill the very distinguished position to which his fellow citizens have elected him.

Dr. Paquet, M.P. for Berthier, en haut, has been elevated to the Dominion Senate.

Dr. A. B. Larocque, one of the Medical Health officers of the City of Montreal, has been elected member of the American Association of Public Health.

Dr. Paré of Sherbrooke and Dr. Paincaud of Varennes (M.D. Victoria) have just returned to Canada after nine months sojourn in Europe, principally in Paris.

Alexander A. Fergusson, (M.D., McGill, 1864,) of Franklin Centre, P.Q., has been appointed Coroner for the district of Beauharnois, comprising the Counties Beauharnois, Chateauguay, and Huntingdon. The local press speak of the appointment as one that will give general satisfaction.

Dr. Hughes Bennett, late Professor in the Edinburgh University, has settled at Nice, France, and intends carrying on practice. This change has been rendered necessary by the state of his health.

OBITUARY.

Dr. Robert Adams died in Dublin, Ireland, on the 13th of January, at the ripe age of 83 years. He held every position of note in the gift of the Medical profession of Dublin. He was, however, best known to the profession by a very extensive and valuable work on Chronic Rheumatic Arthritis, which he published some years ago. Although able to retire, he continued in the all but active duties of his calling, and is said literally to have died in harness.

THE GREAT AMERICAN DOCTOR.

It is now somewhere near eighteen years since Montreal was distinguished by having among its residents, for the greater part of one year, a man, who, under the name of "Tumblety," the great Indian Doctor, made something of a stir, not alone among the uneducated, but among many whose position should have prevented so barefaced an imposition. He filled columns of our daily papers with chiefly purchased certificates, drove a fast horse and a flashy looking carriage, and for a half season was a clever adroit at humbugging not a few out of considerable sums of money. Suddenly as he appeared on the Montreal stage, he about as suddenly departed, and during the long interval which has elapsed from that time to this we have not till a few days ago heard of him or even seen his name mentioned. By the *British Medical Journal* of the 6th of February, we see that, under the title of the *Great American Doctor*, Tumblety has again come to the front at Liverpool, and that, too, in not the most enviable light. A man consulted him, and was given a variety of medicines, among the rest a mixture of which he took a dose, one tablespoonful, and died the same night. A certificate of death being requested from Tumblety he refused to give it, and returned the fee (thirty shillings) which had been paid to him. Although a post mortem was held, no evidence of poisoning could be made out, and the verdict was death from natural causes. We simply note this case to show, firstly, that our brethren across the Atlantic are as easily imposed on as thousands are with us, by the veriest quacks, and, secondly, that these quacks obtain from the working classes fees for single consultations which they would grudgingly pay to a regular practitioner for a month's work.

CLOSING OF MONTREAL MEDICAL SCHOOLS.

We understand that the Medical Faculty of McGill College, close there lectures on the 13th of March. Bishops College Medical Faculty terminate there lectures on the 19th March. The examinations commence almost immediatly after.

DIED.

In Montreal on the 9th of February, William Sutherland, M.D., aged sixty years, Emeritus Professor of Chemistry, University of McGill College.

Original Communications.

Operation for Extroversion of the Bladder and Epispadias. By GEORGE WILKINS, M.D., M.R.C.S. Eng., Professor of Pathology and Lecturer on Practical Physiology at the University of Bishop's College, Attending Physician to Montreal Dispensary, and to the out-patient department of the Montreal General Hospital. (with illustrations)

(Read before the Medico-Chirurgical Society of Montreal.)

MR. PRESIDENT and GENTLEMEN :—

The case that I am about to bring under your notice this evening is that of *successful* plastic operations for relief of extroversion of bladder, and epispadias.

The patient, a lad of 16 years of age, first came under my care about August, 1873. On examination a large vascular and extremely florid tumour presented itself at the lower portion of the abdomen. Its centre protruded about three quarters of an inch beyond the plane of the abdomen, and was covered with bright red granular patches, bleeding on the slightest touch, and highly sensitive.

At its lower portion were visible the orifices of the ureters, through which, at intervals of a few seconds, drops of urine could be seen bubbling.

This large tumour was the posterior wall of the bladder pushed forward by the weight of the intestines, the anterior wall and normally anterior parts being absent. At the junction of the superior margin of bladder and integument were to be seen the only traces of umbilicus.

Beneath the bladder was a stumpy and imperfect penis about 1¼ inch in length; the corpora cavernosa and integument being deficient above, there was no urethra, merely a groove or gutter.

The glans penis also was grooved, and beneath it was a very large prepuce with a well-defined frænum. On the floor of the penis were visible the orifices of the prostatic and seminal ducts. The penis was erect, and almost in contact with the bladder.

The scrotum was extremely well developed and contained testicles. Its front portion was covered with salts of the urine, and presented an eczematous condition, due to the irritation of the urine which was constantly dribbling away at each side of the root of the penis, over the scrotum when standing or walking, and between the scrotum and thigh, or over the groin, when sitting or lying. The anal aperture was not placed between nates; it was an inch or more anterior to usual position, and the finger introduced, passed upward and forwards in the median line.

His hips and sides, quite up to the arm-pit, were covered with cicatrices of small patches of ulceration caused by his lying in urine while in bed at night.

From the description I have just given of his case when he first came under my care, you can easily understand that every moment of his life urine had been dribbling away, and every night he lay in bed clothes, which by morning were saturated with it.

His parents had endeavoured to ameliorate matters by procuring a suitable urinal; they had two different kinds made in this city, which were of no use; they then took him to New York for the purpose of getting a mechanician there to make one. He was but little more successful. Shortly after his visit to New York, patient came under my notice, and readily consented to any operation that afforded hope of relief.

I decided to operate as recommended by Prof. Wood, of London.

Drs. Gardner, Kennedy, and other of my confrères kindly rendered me valuable assistance.

An incision was commenced at the centre of one side of bladder and carried upwards in a straight line, a distance of about five or six inches; the incision was then continued at right angles to the first (the corner of the angle being rounded) a distance little greater than the breadth of the bladder, then down to opposite side of bladder, about same level with commencement of incision. The flap embraced by this long incision was dissected up to within about quarter or half an inch above superior edge of bladder.

A second incision was carried from the first ascending one, about an inch below its superior margin, outwards a distance of about four inches, then downwards to a point a little below and internal to anterior superior spinous process of ilium, the base of the flap being directed downwards towards thigh and scrotum. A corresponding incision was made in opposite side; each flap was then dissected up to its base. The first or umbilical flap was folded upon itself and placed with its external surface in contact with the mucous membrane of bladder, its previous superior margin reaching a little below the inferior border of the bladder and covering for the time being the penis.

The two side flaps were twisted and placed over the umbilical one, their raw surfaces being laid upon

the raw surface of that flap, and their former superior edges meeting in the median line. Through these edges, two harelip needles were passed, each needle taking up, but not perforating umbilical flap. Two sutures were also inserted into edges of same flap.

The large wound left by removing the integument I covered as much as possible by drawing together the angles of the spaces by means of harelip needles and sutures. The opening still left was dressed with carbolized oil. Patient was put to bed in a sitting posture.

For the first three or four days he experienced a great deal of annoyance from acrid urine which collected beneath his nates, notwithstanding he was carefully lifted out of bed twice a day, and every soiled article removed.

This, however, was remedied by a suggestion of mine which added much to my patient's comfort :— That was to place patient in a hammock chair and to have the part upon which nates rested covered with oil cloth, and directly beneath, an opening through both oil cloth and canvas of chair, and below that again to have a receepticle for urine ; a folded cloth placed between nates and oil cloth. This worked admirably ; injections, which were frequently necessary to wash out mucous collected under flaps, could be used with but little disturbance to patient ; all passed through this aperture. Patient slept more comfortably he said than he ever remembered to have slept before. His feet I should add rested on pillows on a box.

With the exception of a slight attack of erysipelatous inflammation at one of the edges of the wound, patient did extremely well, so that in about six weeks after the operation, the large gaping wound left by removal of integument, which, of course, was last to heal, was almost closed up, leaving a long and narrow cicatrix as shown in last photograph.

Contraction caused by cicatrization, however, was greater than I had anticipated, and in consequence a small portion of lower surface of bladder was still left exposed to view. The large thick flap above prevented clothes from touching it so that no inconvenience resulted.

The greatest annoyance to patient previous to operation was the rubbing of his clothes against the very sensitive mucous membrane of bladder, in walking, more especially in going up and down stairs. His suffering from this cause was very much relieved by the operation. He could now walk with comparative ease. On account of this fact, and his sleeping so much better in the chair than in bed, he was so satisfied with his improved condition that it was difficult to get him to consent to another operation that for restoring the penis. He appeared to dread the ether ; it caused such unpleasant sensations for hours after consciousness was restored. However in February last he consented, and with the same valuable assistance as in former operation I proceeded as follows : An incision was commenced at the side of that portion of bladder left uncovered by former operation, about an inch external to margin, and carried downwards and around the angle between penis and scrotum to point on opposite side of bladder corresponding to commencement of incision. A second incision was begun about two inches directly beneath the commencement of the first one, and carried down the outer margin of scrotum, then along its lower margin and up outer margin of the other side of scrotum to a point corresponding to commencement of incision. Between these two incisions was embraced the whole of the integument of the scrotum as seen from in front. This was dissected up, and the flap left exposed to the air for a few minutes to check bleeding.

An incision was also made along the sides of penis, commencing where first incision passed downwards, and carried as far as the glans. The integument at each side of the bladder was then dissected up, and the two sides folded on themselves and approximated as much as possible in front of the bladder by means of silk sutures. The integument above the incisions at each side of the penis was also dissected up to the extent of about $\frac{1}{2}$ an inch so as to afford a sort of groove into which edges of flap about to form roof of urethra was to be placed. The surface of lower edge of flap formed by first operation was also laid bare.

All bleeding having ceased, the integument covering scrotum, which had just been separated from its connection there, still, however, retaining communication at each side, with integument covering groin, was lifted over penis, and placed somewhat like a saddle upon it and lower portion of bladder. Its upper border was then connected by sutures with lower border of old flap, its outer edge was fitted into groove made at each side of penis and held there by sutures, whilst its lower end was free, projecting slightly beyond end of glans penis. Thus what remained exposed of bladder after former operation was completely covered, and the gutter of urethra was converted into a covered channel.

The testicles were covered by drawing in front of them the edges of integument left on posterior surface and sides of scrotum.

A piece of rubber tubing was placed in urethra to allow of free exit of urine.

In this operation thirty-five sutures were used.

Patient did almost as well after this operation as after first. The progress of repair was, however, slightly delayed. A small portion of flap on left side of penis sloughed, but in in no way interfered with ultimate success: for the first two or three weeks a fistulous opening existed about the centre of the line of union of the old and new flaps in front of bladder, but this under appropriate treatment soon closed up.

Ever after this last operation all urine passed through his newly made urethra. For about two or three months, patient complained of much pain; he was not as comfortable as after first operation. This uneasiness was due to my omitting to take the precautionary measure recommended by Wood, that of previously destroying all the hair follicles by means of nitric acid. The small portion of integument reflected over the bladder from the sides had several hairs, which, of course, were shaved off before operating, but subsequently grew, and each hair thus afforded a nucleus around which phosphates were deposited, and accordingly grated on the sensitive mucous membrane, causing much pain, and at times bleeding. This condition, however, was greatly relieved by nitric acid lotion, with which he injected bladder twice a day.

As the hairs grew they made their appearance at the orifice of the urethra, and with a forceps the patient was able to pluck them out, and in this way he gradually became more and more free from his troublesome symptoms. As the hairs are pulled out, the urine will eventually destroy all the follicles.

About three months ago my patient passed from under my care, his family having removed to New York. By that time he had gained flesh considerably, and expressed himself as being comfortable; he could walk much easier than he did before I first operated on him. He still occasionally suffered from collection of phosphates, and no doubt will do so yet a little, as it will take some time before the urine will thoroughly destroy all the hair follicles. When leaving I instructed him to have a gutta percha shield moulded to shape of penis, and to this to have attached a urinal.

As far as I can gather, the total number of recorded cases in which operation for relief of this miserable condi ion has been attempted amounts to forty-one of which number thirty-two have been successful in affording some relief. Prof. Wood of King's College has operated eighteen times.

The progress of Materia Medica. By A. H. KOLLMYER, M.A., M.D. Professor of Materia Medica and Therapeutics, in the University of Bishop's College, Lecturer on Materia Medica and on Botany, in the Montreal College of Pharmacy.

Jaborandi is the name of a new and evidently a very valuable drug, which has lately been introduced into Paris by a Dr. Continho, from Pernambuco, where it has long been regarded as a very effective diaphoretic and sialagogue.

The plant which furnishes this remedy is said to be a shrub, a native of Brazil, but its true botanical name appears to be a *questio vexata*. Professor Baillon, a botanist of high repute, after examining the leaves, considers it to be the *Pilocarpus pennatifolius*, belonging to the sexual system *pentandria monogynia*, and to the natural family *Rutaceæ*; this, however, appears to be doubtful, since Mr. Martindale procured some of the leaves from this plant from the Royal Gardens at Kew, and administered them in the usual form and dose, without producing any such effects as have been found to follow after the administration of those which had been brought from Pernambuco. Yet there is a possibility that the plant cultivated in England may not possess the same medicinal properties as when it has been grown in warmer and more congenial climates. We may expect shortly, however, a detailed botanical description drawn up by Mr. Holmes, curator of the museum of the Pharmaceutical Society, who has received specimens of the genuine article, which description will be published hereafter.

The part of the plant used as a medicine is the leaf. These leaves are about nine inches long, and consist of from three to five pairs of opposite leaflets. The texture of the leaf is leathery, and when held up to the light they are found to be covered with numerous pellucid dots, which are filled up with a granular matter, but not of the nature of a volatile oil; they possess a hay-like odour, but are devoid of taste.

The only chemical analysis that has been made of them was by Mr. Rabuteau; who found them to contain *an odorous principle* (not a volatile oil;) and *a bitter principle*, soluble, in water, and in rectified spirit; but he detected no alkaloid.

Dr. Gubler of Paris and Mr. Rabuteau both confirm the good report given concerning it by Dr. Continho, and regard it as an invaluable diaphoretic and sialagogue, and entitled to one of the most prominent places in our Materia Medica. More recently Sydney Ringer of the University Hospital of London has experimented very extensively with it, and has

found it to possess other properties, which have not as yet been mentioned: of these experiments I propose to give a short synopsis.

The dose is from sixty to ninety grains given in the form of an infusion made with boiling water; the whole to be taken at one draught, and the patient is then to be covered up warmly in bed. Continho recommended that the suspended leaves were to be taken along with the infusion, but Ringer found the strained infusion, a tincture, and an extract, equally efficacious. To children thirty and even sixty grains were given, by the latter, most frequently without producing any effect; they appear to be able to bear as large a dose as an adult, without developing the diaphoresis and ptyalism, for though occasionally these did occur, yet such instances were exceptional.

In ten minutes after the draught, the face, neck, and ears become flushed, and profuse perspiration soon follows, saturating the bed clothes, and saliva, on some occasions amounting to twenty, twenty-two, and even to twenty-seven ounces, streams from the mouth; this condition lasts from two to five hours, and then these effects simultaneously decline. The secretions from other mucous membranes are also said, by different experimenters, to be increased, such as that from the nasal and lachrymal apparatus, as well as from the bronchial and the gastro-intestinal. Gubler asserts that diarrhœa often ensued. Ringer, however, states that he has never observed this result though he had administered it to several lads of from eight to twelve years of age, to seventeen children between three and ten years, and to thirty-eight adults.

During the diaphoresis the temperature fell about one degree, this fall took place about an hour and a half after the dose, and the diminution of heat sometimes continued for the remainder of the the day. The pulse was quickened for about four hours, after which it returned to its previous condition. In one case where the pulse was intermittent it became regular while under the influence of jaborandi; ordinarily the pulse was augmented twelve to forty beats per minute. Nausea and vomiting sometimes occurred two or three hours after the potion; occasionally the vomiting was repeated three times, and often sleep followed. The flushing of the face was succeeded by pallor, and some prostration. Flushing of the face always preceded sweating, where that was wanting no diaphoresis resulted. It deranges vision, and contracts the pupil; applied topically to the eye, it does the same. Super-pubic pain was also occasionally complained of, along with a strong desire to void the urine, which symptoms were immediately relieved on micturation. It did not increase the quantity of urine—and in one case it proved to be a lactagogue. Some of those experimented on complained of hot and cold sensation on the day following, and one of a throbbing within the head. The effects of the medicine were found not to be diminished by repeated use. In some respects it resembles somewhat belladonna in action, but in most of its physiological effects it is directly antagonistic to that remedy, thus:—

Belladonna.	Jaborandi.
1. Flushes the face.	1. First, followed by pallor
2. Quickens the pulse.	2. does the same
3. Affects the bladder.	3. " "
4. Affects children less than adults.	4. " "

They differ, however, in the following respects:

1. Checks secretion from the skin, salivary glands and mucous membranes.	1. Increases them;
2. Dilates the pupil.	2. Contracts it.
3. Contracts the arterioles.	3. Dilates them.
4. Is lactifuge.	4. Is lactagogue.
5. Excites delirium.	5. Produces sleep.

Ringer observing this antagonism injected the 1-100th part of a grain of atropine hypodermically into each of three men, under the full effects of jaborandi, and in ten to twelve minutes the sweating and salivation ceased. And singularly enough while he was experimenting on this point, a lad was admitted into the hospital who had been poisoned with one grain of atropine; five hours after he had imbibed the poison, thirty grains of jaborandi were administered to him, in fifteen minutes his mouth had become more moist, and in an hour he was sweating freely.

Sphygmographic tracings indicated very notable diminution of vascular tension during sweating.

The natural inference to be drawn from these reports concerning jaborandi is, that it is destined to prove a very valuable addition to our Materia Medica, inasmuch as it will supply a want that is often experienced in the treatment of many cases of dropsy, and in renal affections, especially those depending on congestion, or on inflammation of the kidneys; whilst in pneumonia, bronchitis, erysipelas, and in the exanthemata, small-pox, measles and scarlet fever, its usefulness must be apparent to every scientific observer. Without entering, however, more fully into its therapeutical application, I might add, in conclusion, that arrangements have been

made by several of our enterprising druggists to obtain a supply as soon as that which has been ordered from Brazil arrives in the British market; when all who feel so disposed will have an opportunity of testing its medicinal virtues and powers for themselves.

Progress of Medical Science.

THE THERAPEUTICS OF FUNCTIONAL HEADACHE.

By Allan McLane Hamilton, M.D.
From the Philadelphia Medical Times, Feb. 6th, 1875.

All remedies for the alleviation of the several varieties of this condition may be included under the following head:

I. Internal. { Cerebral anæmiants. " stimulants. Those diminishing reflex irritation. " " remote local congestion. Cardiac sedatives. Alteratives. { Malarial. Syphilitic. Gouty. Rheumatic.
II. Local. { Peripheral irritation. " anæsthesiants. " revulsives.
III. Galvanism.

The headaches dependent upon anæmia of the brain result usually from nervous exhaustion. These are the headaches of brain-workers, or may also follow unusual physical fatigue. The distressing persistency of the headache of nervous prostration is the characteristic feature. It it the most protean of all forms, as it may be a close counterfeit of neuralgia, or, on the other hand, may be dull and sub-acute. These patients are usually anæmic and much reduced. The headaches are associated with vertigo, and oftentimes nausea. There is usually vomiting, and sometimes syncope. The mental powers are exhausted, and the patient who suffers in this way usually awakes unrefreshed by sleep, with dull, heavy pains and a sense of fatigue. There is little disposition to use the mind; the pulse is small and feeble, and there is sometimes a tendency to passive cerebral congestion. The skin is cool during the attack, and the surface may even be moist.

Many of my patients who suffer in this way are women, and the headache is the most distressing when the patients awaken. The use of a cup of tea or coffee is excellent at this time, and I have lately found that cocoa given in the form of a fluid extract is of very great benefit. Messrs. Hazard and Caswell have made for me a fluid extract which is quite concentrated. A drachm or two of this is the dose. The following prescription is a favorite of mine for these headaches:

℞ Strichniæ sulph., gr. i;
Acidi phosph. dil.,
Tr. ferri chlor., aa ℥ vi;
Aquæ camphoræ, ad ℥ iv;—M.
Sig.—A teaspoonful after eating.

The use of diffusible stimulants is in order. We may give the patient the aromatic spirits of ammonia an l sherry wine several times a day with good results. Muriate of ammonia is an invaluable remedy in these headaches, particularly in hemicrania; it should be given in very large doses—from ten grains to thirty—every hour until relief is obtained.

A form of headache, spoken of as *hyperæsthetic* by Hanfield Jones, demands opposite treatment, for the administration of stimulants aggravates it greatly. These are the cases where there are redness of the face, tense carotids, injected conjunctivæ, and heat of skin, the patient is very restless, and the mental faculties are confused. These patients have cold hands and feet during the paroxysms, as a rule. There is imperfect nervous stimulation of the heart, and the cerebral vaso-motors are subject to paresis. These patients find it difficult to sleep; there is tossing at night, and the mind is possessed by a myriad of thoughts that chase each other through the brain. The first order of remedies in my table are of value here, and the bromides are the best of them. We may give this prescription and hope for good results, sometimes very immediate ones:

℞ Sodii bromidi, ℥ i;
Fld. ext. ergotæ, ℥ iss;
Aquæ camphoræ, ad ℥ iv;—M.
Sig.—A teaspoonful every three hours, or two teaspoonfuls at night.

I believe the sodic salt to be the most efficacious of all, and the most reliable. Bromide of calcium is next in order, I am convinced, after having given it an extended trial.

In these headaches, cardiac sedatives are of incalculable benefit. Tincture of aconite and veratrum viride will often produce happy results. The continued use of digitalis, combined with zinc, the latter in the form of the oxide, does much to change the character of the circulation.

For the headaches of inebriety I have used since the year 1871 the monobromate of camphor. The results of my experiments I published in the *New York Medical Journal* of August of that year. I am sorry to see that this excellent remedy has fallen into disuse, for it seems to possess hypnotic properties peculiar to itself.

Bourneville, of Paris, has recently called attention to its physiological effects, and I trust its use will be more extended, it having received favor at the hands of this distinguished gentleman. Local depletion, and in some cases general depletion, are necessary. Leeches and cupping relieve the gorged sinuses at the base of the skull. A very common class of headaches are those dependent upon reflex causes. They may be called the *inhibitory* headaches. They go hand in hand with disturbance of digestion, irregularities in the uterine functions, and with other conditions dependent upon eccentric irritations transmitted to the central nervous axis. These headaches partake of all varieties: we may have the well-known sick headache, the headache of dysmenorrhœa, or that associated with an irritable uterus. Of course, our diagnosis will point out the cause very quickly; but oftentimes there are points of irritation

we may overlook. Hæmorrhoids may often produce headache, associated with great restlessness and fatigue. Its seat is usually in the frontal region, and it comes on very suddenly.

The uterus will account for two-thirds of the headaches among women, and one of my patients suffers with a common form all have met with undoubtedly. Her uterus is retroverted: mechanical pressure is made upon the rectum to such a degree that the walls of that gut are in contact nearly all the time. A headache is the result, which is persistent and very prostrating. She suffers constantly from constipation, and before I saw her was often in such extremities from retained fæces that she would pass an ivory paper cutter up the rectum, and press the the uterus forward. After working in this manner for some time, and using a syringe, she would have and unsatisfactory, ribbon-like, and greatly attenuated stool, and the headache would disappear for several days. These cases are more familiar to the gynæcologist than to the neurologist.

Just as the stomach, when irritated by undigested food, transmits to the brain in gastric epilepsy a morbid irritation, and a convulsion is the consequence, so does it send irritations that are followed by headaches.

We are to meet these conditions therapeutically by special interference and proper remedies.

There is a somewhat rare variety of headache, but an excessively painful one,—I allude to rheumatic headache. The pain is superficial; there is a diffused hyperæsthesia over the scalp, which is very sensitive to touch. The disease may be deeper, and the dura mater be the seat of rheumatic inflammation. This is the rare variety. The external hyperæsthesia is due generally to cold. I have found it amenable in a very few minutes to the faradic current applied by the wire brush. Of course, alterative medicines will be required should there be much constitutional participation.

Headaches are associated with syphilis in nearly every instance. Oftentimes there are deep organic changes, sometimes of the dura mater, or there may exist a tumor. The headache is intense, localized, and not always attended by acceleration of pulse. It is needless to say it is worse at night. Inunctions of mercurial ointment have met my anticipations in many cases. In old cases we naturally resort to specific medicine.

The suboccipital headache of malaria is often uncontrolled by quinine alone. The combination of arsenious acid is of great use, and the addition of a small quantity of belladonna increases still more its effect.

Neuralgia is dependent upon so many causes that it will be difficult to consider its therapeutical indications without going very deeply into the history and etiology of the disease. The peripheral forms, however, deserve notice in a paper devoted to the discussion of functional diseases, and, as these are very commonly met with, particularly the facial form, it might be apropos to speak of a few serviceable remedies. I know of none so good as iron, quinine, and belladonna, or arsenic in some one of its forms. This prescription is a good one, I think, for it contains three of the agents:

℞ Morph. sulph., gr. vi;
Ext. belladonnæ,
Ext. nucis vomicæ, aa gr. xii;
Ferri et quiniæ citrat., ʒiiss.—M.

Ft. massa et divid. in pil. No. xlviii, one t. i. d.

Strychnia is of great bendfit in the anæmic variety of this disorder.

Peripheral neuralgia is treated most successfully by local applications, and among these come galvanism, chloroform, irritant applications, such as blisters, etc., and the actual cautery. The application of chloroform and of bisulphide of carbon has been recommended by several English writers. One of these substances should be poured upon a piece of cotton, and the same placed in a wide-mouthed bottle. The mouth of the bottle is to be then held against the most painful part of the face for a few minutes. A few drops of nitrate of amyl inhaled have often stopped a severe neuralgia.

The hypodermic syringe is so much used that it would be unnecessary to allude to it. I would only speak of certain solutions that have been tried with different degrees of success.

Morphine stands prominently forward as the best. Combined with atropine it is perhaps more efficacious than when injected alone. In neuralgia, chloroform injected hypodermically has been highly recommended by Roberts Bartholow. I think its greatest fault is the production of abscesses. I have used it several times, but have always had unpleasant consequences of this kind. The irritant nature of this drug forbids its application to the skin even locally. We have all seen the blistering produced by the local application. How much more intense must be its action beneath the skin!

Blistering the skin and afterwards applying morphine to the denuded surface, is effectual in stopping some forms of peripheral neuralgia.

I have lately tried, with the most satisfactory results, the local application of the ether-spray by the atomizer. Freezing of the skin just anteriorly to the ear will cut short a violent attack of facial neuralgia in a few moments.

In certain forms of facial neuralgia, particularly where there are points of irritation, the actual cautery-iron, brushed over these points, will cure the patient.

Perhaps one of our best remedies is electricity. In the form of galvanism we may affect the cervical sympathetic, diminish the cerebral hyperæmia, or by stronger currents increase it. The poles should be held over the nuchæ or lower down, and over the mastoid bone, or upon both temples. In neuralgia the positive pole may be held just back of the ear, and the negative passed over the several branches of the fifth nerve.

The faradic current often relieves many headaches, particularly if they are diffused over the scalp, and if they are aggravated by heat to the head, or by pressure.

The application of cold is one of the best local means we have to modify or stop headache, particu-

larly if it be of the hyperæsthetic variety. Bladders filled with ice, cold douches, and other expedients enable us to successfully combat it.

The organic headaches deserve mention by themselves, so I will not venture upon such a wide field. In all cases of this kind it is a symptom, and while attempting to relieve it, we must not forget that there is usually a cause.

TREATMENT OF DELIRIUM TREMENS.

Dr. Kitchen gives the following treatment, in the *American Journal of Insanity*:—

In the treatment of delirium tremens many points are to be taken into consideration, as the condition of the patient, the length of time the delirium has lasted, and the surroundings of the patient.

Our custom is to place this class of cases in a large room, well ventilated, with about one-thousand cubic feet of space for each patient.

Usually the patient is much fatigued on admission, and is in feeble physical health, and not infrequently there are complications, as bronchitis or pneumonia, and occasionally Bright's disease.

When no complication exists we give a tepid b th. The patient is put to bed, and usually a camisole is required to restrain him.

The usual, and perhaps better, treatment, is at once to place the patient on liberal and nutritious diet, as beef juice, cream, or essence, soups, milk, milk punch, egg-nog, etc.

If he is feeble, the reasons for giving stimulants are plain, though the delirium is caused by the same stimulant. Some recommend pure alcohol to be given instead of brandy, whisky, or even wine.

Of course, in administering stimulants to this class of patients, great and watchful care should always be exercised. The pulse is a safe guide, as stimulants should lower it and give it fulness. To quiet the tremors and restlessness, opium serves a good purpose, administered by hypodermic injection.

The treatment which in all probability is the most effective, is a generous diet, full doses of fluid extract of conium during the day, to control the muscular action, and during the evening hydrate of chloral, with tincture of hyoscyamus, the latter to be repeated until sleep is secured

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ON THE HAND-FEEDING OF INFANTS.

BY EUSTACE SMITH, M.D., LONDON.

There are few subjects of greater interest, or of which it is more important, in a sanitary sense, to possess an accurate knowledge than that which relates to the feeding and nurture of infants. Many mothers are unable to nurse their babies, and there is an increasing di like to transfer maternal duties to a hireling; consequently, the question how best to provide a fitting diet for a being whose digestive powers are feeble and immature, but whose growth and healthy development are dependent upon a suitable supply of nourishment, is one to which it is of the utmost importance to furnish a correct answer.

The mortality among children under the age of twelve months is enormous; and of these deaths, a large proportion might be prevented by a wider diffusion of knowledge, of one of the least difficult of subjects. The rules for the efficient nourishment of infants, are plain and simple, and the application of them, although requiring tact and judgment, is yet not a matter which ought to occasion any extraordinary embarrassment.

The great principle at the bottom of all successful feeding—viz., that an infant is nourished in proportion to his power of digesting the food with which he is supplied, and not in proportion to the quantity of nutritive material which he may be induced to swallow—is so obviously true, that an apology might almost seem to be required for stating so self-evident a proposition; but experience shows that this simple truth is one which in practice is constantly lost sight of. That that child thrives best who is most largely fed, and that the more solid the food the greater its nutritive power, are two articles of faith so firmly settled in the minds of many persons, that is is very difficult indeed to persuade them to the contrary. To them wasting in an infant, merely suggests a larger supply of more solid food; every cry means hunger, and must be quieted by an additional meal. To take a common case: A child, weakly perhaps to begin with, is filled with a quantity of solid food which he has no power of digesting. His stomach and bowels revolt against the burden imposed upon them, and endeavor to get rid of the offending matter by vomiting and diarrhœa; a gastro-intestinal catarrh is set up, which still further reduces the strength—every meal causes a return of the sickness; the bowels are filled with fermenting matter, which excites violent griping pains, so that the child rests neither night nor day; after a longer or shorter time, he sinks, worn out by pain and exhaustion, and is then said to have died from "consumption of the bowels."

Cases such as the above are but too common, and must be painfully familiar to every physician who has much experience of the diseases of children. When seen sufficiently early, the treatment of the derangement is simple and the improvement immediate, but it unfortunately often happens, especially among the poorer classes, that application for advice is delayed until the child's strength has been reduced to the lowest point, and all our efforts to remedy the mischief may in such cases prove unavailing.

The disastrous results of ignorant attempts to supply a substitute for human milk, have brought the whole practice of hand-feeding into disrepute; but if a food be judiciously selected, with a correct appreciation of infant wants, and an accurate estimate of infant powers of digestion, there is no reason why a child fed artificially, with judgment, should not thrive as well as one suckled naturally at his mother's breast. The food we select for the diet of an infant should be nutritious in itself, but it should also be given in a form in which the child is capable of digesting it, otherwise we may fill him with

food without in any way contributing to his nutrition, and actually starve the body, while we load the stomach to repletion. No food can be considered suitable to the requirements of the infant, unless it not only possesses heat-giving and fat-producing properties, but also contains material to supply the waste of the nitrogenous tissues; therefore, a merely starchy substance, such as arrowroot, which enters so largely into the diet of children, especially among the poor, is a very undesirable food for infants, unless given in very small quantities, and mixed largely with milk.

The most perfect food for children, the only one, indeed, which can be trusted to supply in itself all the necessary elements of nutrition, in the most digestible form, is milk. In it are contained nitrogenous matter in the curd, fat in the cream, besides sugar, and the salts which are so essential to perfect nutrition. The milk of different animals varies to a certain extent in the proportion of the several constituents, some containing more curd, others more cream and sugar; but the milk of the cow, which is always readily obtainable, is the one to which recourse is usually had, and when properly prepared, this is perfectly efficient for the purpose required. Cow's milk contains a larger proportion of curd and cream, but less sugar, than is found in human milk, and these differences can be immediately remedied by dilution with water, and the addition of cane or milk sugar in sufficient quantity to supply the necessary sweetness. But there is another and more important difference between the two fluids which must not be lost sight of. If we take two children, the one fed on cow's milk and water, the other nursed at his mother's breast, and produce vomitting directly after a meal by friction over the abdomen, we notice a remarkable difference in the matters ejected. In the first case, we see the curd of the milk coagulated into a firm, dense lump; while in the second, the curd appears in the form of minute flocculent loosely connected granules. The demands made upon the digestive powers in these two cases is very different, and the experiment explains the difficulty often experienced by infants in digesting cow's milk, however diluted it may be for the addition of water alone will not hinder the firm clotting of the curd. In order to make such milk perfectly satisfactory as a food for new-born infants, further preparation is required, and there are two ways in which the difficulty may be overcome.

The first method consists in adding an alkali, as lime-water, to the milk. To be of any service, however, the quantity added must be considerable, and one or two teaspoonfuls—the addition usually made to a bottleful of milk and water—is quite insufficient to effect the object desired. Lime-water contains only half a grain of lime to the fluid ounce; of this solution, so small a quantity as two teaspoonfuls would be scarcely sufficient even to neutralize the natural acidity of the milk. But it is necessary to do much more than this. Lime-water, no doubt, acts by partially neutralizing the gastric juice—the rennet naturally existing in the child's stomach—so that clotting of the curd is in great part prevented, and the milk passes little changed out of the stomach to be fully digested by the intestinal secretions in the bowels. To attain this object, at least a third part of the mixture should consist of lime-water. For a new-born infant, two tablespoonfuls of milk may be diluted with an equal quantity of plain filtered water, and then be alkalinized by two tablespoonfuls of lime-water. This mixture, of which only a third part is milk, can be sweetened by the addition of a teaspoonful of milk-sugar. If thought desirable, a teaspoonful of cream may be added. The whole is then put into a perfectly clean feeding bottle, and is heated to a temperature of about 95° Fahr., by steeping the bottle in hot water; when warmed, it is ready for use. The proportion of milk can be gradually increased as the child gets older.

There is another plan by which the caseine of cow's milk may be rendered digestible; it is by adding to the milk a small quantity of some thickening substance, such as barley water, isinglass, or even one of the ordinary farinaceous foods. The action of all of these is the same, and is an entirely mechanical one. The thickening substance separates the particles of curd, so that they cannot run together into a solid lump, but coagulate separately into a multitude of small masses. By this means the curd is made artificially to resemble the naturally light clot of human milk, and is almost as readily digested by the infant.

Although any thickening matter will have the mechanical effect desired of separating the particles of curd, yet it is not immaterial what substance is chosen. The question of the farinaceous feeding of infants is a very important one, for it is to an excess of this diet that so many of their derangements may often be attributed. Owing to a mistaken notion that such foods are peculiarly light and digestible—a notion so widely prevalent that the phrase "food for infants" has become almost synonymous with farinaceous matter—young babies are often fed as soon as they are born with large quantities of cornflour or arrowroot, mixed sometimes with milk, but often with water alone. Now, starch, of which all the farinæ so largely consist, is digested principly by the saliva, aided by the secretion from the pancreas, which convert the starch into dextrine and grape-sugar previous to absorption. But the amount of saliva formed in the new-born infant is excessively scanty, and it is not until the fourth month that the secretion becomes fully established. Again, according to the experiments of Korowin, of St. Petersburg, the pancreatic juice is almost absent in a child of a month old; even in the second month, its secretion is very limited, and has little action upon starch. It is only at the end of the third month that its action upon starch becomes sufficiently powerful to furnish material for a quantitative estimation of the sugar formed. Therefore, before the age of three months, a farinaceous diet is not to be recommended—is even to be strongly deprecated, unless the starchy substance be given with great caution and in very small quantities. If administer-

ed recklessly, as it too often is, the food lies undigested in the bowels, ferments, and sets up a state of acid indigestion, which in so young and feeble a being, may lead to the most disastrous consequences. In fact, the deaths of many children under two or three months old, can often be attributed to no other cause than a purely functional abdominal derangement, excited and maintained by too liberal feeding with farinaceous foods. There is, however, one form of food, which, although farinaceous, is yet well digested even by young infants if given in moderate quantities. This is barley-water. The starch it contains is small in amount, and is held in a state of very fine division. When barley-water is mixed with milk in equal proportions, it insures a fine separation of the curd, and is at the same time a harmless addition to the diet. Isinglass or gelatine, in the proportion of a teaspoonful to the bottleful of milk and water, may also be made use of, and will be found to answer the purpose well.

Farinaceous foods, in general, are, as has been said, injurious to young babies, on account of the deficiency during the first months of life of the secretions necessary for the conversion of the starch into dextrine and grape-sugar—a preliminary process which is indispensable to absorption. If, however, we can make such an addition to the food as will insure the necessary chemical change, farinaceous matter ceases to be injurious. It has been found that by adding to it malt in certain proportions the same change is excited in the starch artificially as is produced naturally by the salivary and pancreatic secretions during the process of digestion. The employment of malt for this purpose was first suggested by Mialhe in a paper read before the French Academy in 1845, and the suggestion was put into practice by Liebig fifteen years later.

"Liebig's Food for Infants" contains wheat flour, malt, and a little carbonate of potash, and has gained a well-deserved celebrity as a food for babies during the first few months of life. The best form with which I am acquainted is that made by Mr. Mellin, under the name of "Mellin's Extract for preparing Liebig's Food for Infants." In this preparation, owing to the careful way in which it is manufactured, the whole of the starch is converted into dextrine and grape-sugar, so that the greater part of the work of digestion is performed before the food reaches the stomach of the child. Mixed with equal parts of milk and water, this food is as perfect a substitute for mother's milk as can be procured, and is readily digested by the youngest infants. It very rarely indeed, happens that it is found to disagree.

In all cases, then, where a child is brought up by hand, milk should enter largely into his diet, and during the first few months of life he should be fed upon it almost entirely. If he can digest plain milk and water, there is no reason for making any other addition than that of a little milk-sugar and cream; but in cases where, as often happens, the heavy curd taxes the gastric powers too severely, the milk may be thickened by an equal proportion of thin barley-water, or by adding to each bottleful of milk and water a teaspoonful of isinglass or of "Mellin's Extract."

Having fixed upon the kind of food which is suitable to the child, we must next be careful that it is not given in too large quantities, or that the meals are not repeated too frequently. If the stomach be kept constantly overloaded, even with a digestible diet, the effect is almost as injurious as if the child were fed upon a less digestible food in more reasonable quantities. A healthy infant passes the greater part of his time asleep, waking at intervals to take nourishment. These intervals must not be allowed to be too short, and it is a great mistake to accustom the child to take food whenever he cries. From three to four ounces of liquid will be a sufficient quantity during the first six weeks of life; and of this only a half or even a third part should consist of milk, according to the child's powers of digestion. After such a meal the infant should sleep quietly for at least two hours. Fretfulness and irritability in a very young baby almost always indicate indigestion and flatulence; and if a child cries and whines uneasily, twisting about his body and jerking his limbs, a fresh meal given instantly, although it may quiet him for the moment, will, after a short time, only increase his discomfort. During the first six weeks or two months, two hours will be a sufficient interval between the meals; afterwards this interval can be lengthened, and at the same time a larger quantity may be given at each time of feeding. No more food should be prepared at once than is required for the particular meal. The position of the child as he takes food should be half reclining, as when he is applied to his mother's breast, and the food should be given from a feeding-bottle. When the contents of the bottle are exhausted, the child should not be allowed to continue sucking at an empty vessel, as by this means air is swallowed, which might afterwards be a source of great discomfort. The feeding apparatus must be kept perfectly clean. The bottle should be washed out after each meal in water containing a little soda in solution, and must then lie in cold water until again wanted. It is desirable to have two bottles which can be used alternately.

At the age of six months farinaceous food may be given in small quantities with safety, if it be desired to do so; and in some cases the addition of a moderate proportion of wheaten flour to the diet is found to be attended with advantage. The best form in which this can be given is the preparation of wheat known as "Chapman's entire wheaten flour." This is superior for the purpose to the ordinary flour, as it contains the inner husk of the wheat finely ground, and is therefore rich in phosphates and in a peculiar body called cerealin, which has the diastatic property of changing starchy matters into dextrine. This flour should be slowly baked in an oven until it crumbles into a light grayish powder. At first no more than one teaspoonful should be given once or twice a day, rubbed up (not boiled) with milk. If there be much constipation, fine oatmeal may be used instead of the baked flour.

After the eighth month a little thin mutton or chicken broth or veal tea may be given, carefully freed from all grease. After twelve months the child may begin to take light puddings, well-mashed potatoes with gravy, or the lightly boiled yolk of an egg; but no meat should be allowed until the child be at least sixteen months old. Every new article of food should be given cautiously, and in small quantities at first, and any sign of indigestion should be noted and a return be made at once to a simpler method of feeding.

During all this time the child should be kept scrupulously clean, and his nursery should be well ventilated and not be kept too hot. He should be washed twice a day from head to foot, once with soap. The air of his bed-room should be kept sweet and pure during the day, and at night, if the weather does not allow of an open window, a lamp placed in the fender will insure of a sufficient exchange of air. The child should pass as much of his time as possible out of doors, and while every care is taken to guard his sensitive body against *sudden* changes of temperature, he must not be covered up with too heavy clothing and shut off from every breath of air for fear of his catching cold. A child ought to lie cool at night, and the furniture of his cot, although sufficiently thick to insure necessary warmth, should not be cumbersome, so as to be a burden. If the above directions are carefully carried out—and the mother should herself see that they are attended to—few cases will be found to present any difficulty in their management. Exceptional cases, however, are sometimes met with where special sources of embarrassment may arise. These I propose to consider in a future paper.—*Sanitary Record.—The Sanitarian, Jan.*, 1875.

THE TREATMENT OF ABORTION

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Abortion is an occurrence to which every pregnant woman is liable. Though generally the result of accident or conditions over which the woman has little control, it is frequently brought about intentionally by those who wish to avoid having children. The practitioner is constantly being brought into contact with such cases, and as they may be looked upon to some extent as emergencies, I am led to believe that any contribution, however small, to the management of abortion, may be of some interest.

What follows will have reference to premature expulsion of the ovum at any time from the first to the end of the fourth month. The discussion of causes will be purposely omitted from this paper. It would appear on first thought, that a thorough knowledge of the causes of abortion would be necessary, in order properly to comprehend the treatment; but such knowledge applies more directly to the prevention or the removal of the causes of this accident. So far as the simple management of the expulsion of the ovum is concerned, the subject can be fully understood without any special reference to etiology.

It should be clearly understood that abortion often takes place without there being any necessity for interference on the part of the physician. Although an unnatural occurrence, the vital powers are sufficient in some cases to accomplish the work without the aid of medicine or surgery. On the other hand, there are several ways in which danger may arise, which calls for the most active treatment. Indeed, in the great majority of cases the physician is called upon to either guard the patient from danger or relieve suffering.

The point to settle, when a case of this kind comes up for consideration, is the diagnosis. Firstly, is the patient threatened with abortion? Secondly, can it be arrested, or must it go on? To answer the first, it is necessary to make sure that the patient is pregnant, a diagnosis which is not easily made with certainty. All men of experience will acknowledge the difficulty of diagnosticating pregnancy in the the earlier months, and on this account I hope to be pardoned for deviating from the main topic, in alluding to the signs and symptoms of pregnancy, which are supposed to be perfectly familiar with every one. I refer to this matter for the purpose of calling attention to a classification which I believe has the advantage of being more easily remembered than that given in text books.

First. Symptoms manifested by the general system—Presumptive.

Second. Signs and symptoms manifested by the reproductive organs—Probable.

Third. Signs manifested by the fœtus in utero—Positive.

Under the first head may be classed all the constitutional symptoms: sympathetic derangement of the digestive and nervous systems; morning sickness, or nausea and vomiting, eructations, heartburn; craving for particular articles of food and loathing others; constipation, salivation, and various neuralgic pains. Either or all of these may be present or absent. At the same time that the patient may have all these symptoms, the general health appears to be good; that is, nutrition and circulation are normal.

Under the second head are classed all the changes occurring in the pelvic organs and mammary glands: suspension of the catamenia, increase in size of the uterus, as observed by prolapsus at first and then ascent; fluctuation or elasticity of the uterus; change in colour of the mucous membrane of the vagina; changes in the mammary glands.

The third division comprises ballottment, the placental souffle, fœtal heart, and fœtal motion.

With the best skill and the greatest care, the diagnosis of pregnancy is not always certain; and it is especially difficult when an examination of the pelvic organs cannot be made.

When a patient presents the usual symptoms of abortion—hemorrhage and pain—we are told in books to make an examination of the uterus; but I am sure to make this an invariable rule is unwise practice. If the symptoms are not severe, active

treatment is not called for, and an examination under these circumstances would be likely to do harm. Better to wait either until the symptoms pass away or become more marked.

Before making any examination of the uterus, it is better to decide, as nearly as possible, the next important point; can the abortion be arrested, or must it go on? It is impossible to be perfectly sure on this point in all cases. Where there have been free hemorrhage and severe pain for any length of time, the probabilities are that the abortion cannot be averted; while if there is only slight bleeding, and very little or no pain, then the prospects are that the trouble can be arrested.

Fortunately, while we cannot be positive in diagnosis, we can be certain of the proper course of treatment to pursue. So long as there is any hope of arresting it we should direct our efforts towards that end, knowing that if we fail, the treatment employed will not interfere with the favorable termination of the abortion.

When the history obtained indicates pregnancy, and the patient has the symptoms of abortion, she ought to be put into bed, and directed to rest in the recumbent position, but not constantly on the back, as usually directed. I am satisfied that lying on the back for any great length of time tends to excite uterine action. The influence of position on the reproductive organs is well illustrated in spermatorrhœa, the emissions occurring almost always when the subject is lying on his back. The patient should be directed to change from the back to either side, whenever she feels inclined to do so. Lying on the side, with the lower limbs drawn upwards and forwards, throws the pelvis into a semiprone position, and removes the pressure from the pelvic organs better than any way, except resting on the knees and chest.

When there is pain and much nervous excitement, an anodyne should be given. Opium and bromide of potassium answer well in most cases. If there is no pain the opium should be omitted. A suppository containing a medium dose of opium and belladonna is sometimes very satisfactory. A fair trial of this line of treatment for twelve or twenty-four hours will suffice to show whether the abortion can be prevented or not. If the symptoms continue, and especially if they increase in severity, then hope of arresting it must be abandoned.

To relieve or modify the pain, and keep the hemorrhage in check, are the indications in the first stage of abortion, or during dilation of the cervix. Opium and bromide of potassium, or the bromide and chloral hydrate, should be employed to keep the nervous system quiet during the day, and to give sleep, if possible, during the night. In some cases the pain is so severe that sleep cannot be obtained short of profoundly narcotizing the patient; then the anodyne should be given in such doses as will quiet irritability and enable the patient to bear pain without fretting.

Knowing that the ovum cannot be expelled without some pain, we naturally inquire if such free use of anodynes will not retard the process of abortion. My own observations have satisfied me that the first stage of abortion, *i.e.*, dilatation of the cervix uteri, is not retarded by the use of opium or chloral hydrate. On the contrary, I am inclined to think that opium, judiciously given, rather facilitates dilatation than retards it.

The management of hemorrhage is the next indication to be fulfilled. Although occasionally this does not require any special attention, in many cases it needs the most prompt and masterly treatment. The tampon has been universally employed for the control of bleeding in abortion; in fact it has been almost exclusively used. There have been many substances recommended, and a little diversity in the mode of application, but the principle is always the same. Rags, sponges, cotton wadding, and the rubber bag or colpeurynter, as it is called, are the ordinary materials in use.

Practically, I have found the tampon objectionable in many respects. It controls the hemorrhage partially, but very seldom completely. It is troublesome to use, both to physician and patient. It must be renewed frequently, because if left in situ for any length of time decomposition occurs to an offensive and dangerous extent. I believe that septicæmia, one of the dangers in abortion, is liable to be induced indirectly by the use of the tampon. These objections cannot all be raised against the colpeurynter, as it is easy to introduce and remove, and does not excite decomposition; but what is equally unfortunate, it does not answer the purpose. The rubber bag in the vagina will not control hemorrhage unless it be distended so as to make strong pressure on the vaginal walls and pelvic organs generally. This gives so much distress by exciting pelvic tenesmus that it cannot be borne.

My experience with the vaginal tampon being unfavorable, I have abandoned it altogether. I now trust to the natural mode of controlling or retarding uterine hemorrhage, that is, the formation of coagula in the vagina. To accomplish this I place a compress on the vulva, securing it by the ordinary T bandage. If this fails to keep the bleeding within the bounds of safety, I then tampon the cervix uteri. This is done either by using a sponge tent, as suggested by Sir J. Simpson, or by crowding an ordinary piece of sponge into the cervix with the uterine dressing forceps; or what is better than either, though not always possessed by the practitioner, the hydrostatic dilators.

The advantages of the cervical tampon over the vaginal are these: the cervical can be introduced and removed through the speculum with the greatest facility, and without much pain to the patient. It more thoroughly controls the hemorrhage, and does not cause vesical and rectal tenesmus. It does not cause decomposition to the same extent. It helps to dilate the cervix, which is desirable; and by damming back the blood into the uterus it separates the attachments of the fœtal membranes from the uterine walls. There is but one objection to the cervical tampon, that it slips out of place unless great care is taken. As the os dilates, the dilator gets loose, and will come away. To prevent this

the water in the dilator should be increased from time to time; but this requires the presence of the physician at short intervals, which is not always convenient. To overcome this objection the dilator should be distended as far as possible, and then fastened to a bandage round the body, in the same manner that surgeons tie a catheter fast in the bladder.

In using the dilator, the greatest care should be exercised in introducing it, so as not to rupture the membranes. It is always desirable to have the ovum expelled whole, as when broken its expulsion by the uterus is often very tedious, and sometimes impossible in any reasonable length of time.

It quite frequently happens that when the os is fully or sufficiently dilated the ovum is not expelled. There is a kind of inertia of the uterus, which permits its contents to remain, and this condition is often attended with hemorrhage. Ergot is then indicated. It will sometimes, but not always, excite uterine contractions, and in that way control the bleeding and expel the ovum. It is at this stage of the process, and at no other, that ergot is useful. I am satisfied from observations that much harm is often done by giving ergot before the os uteri is sufficiently dilated. It is often given to control hemorrhage in the early stage, and generally with ill effects. It rarely if ever controls the bleeding under these circumstances, and is almost sure to increase the patient's suffering if it acts at all. Used at the beginning, it is really worse than useless.

Should there be any delay in the expulsion of the ovum after the os is fully dilated, it is best to employ mechanical means to empty the uterus. The text books recommend that the ovum be removed by the finger; and if it cannot be reached by an ordinary digital examination, that the hand should be introduced into the vagina. To those who have practiced this manipulation it is unnecessary to say that it is at all times difficult and sometimes unsuccessful. In abortion in the earlier months of pregnancy one finger is all that can be admitted into the uterus, and this is insufficient to seize and remove the ovum. All that can readily be done is to detach the ovum, break it down, and then trust to its being expelled. When the uterus is larger, as at the end of the fourth month, two or more fingers can be introduced, if the hand is in the vagina; but then the fingers are too short to reach the fundus uteri and scoop out the ovum; and it is seldom that it can be seized even with two or more fingers. And to make this attempt at delivery, it is almost necessary to give chloroform, which adds delay and danger to an operation frequently ending in failure.

After having faithfully tried this standard practice, I have abandoned it for what has proved to be better. When the ovum is retained after dilatation of the os, I remove it through the speculum, by means of forceps and curette. The patient is placed in the semiprone position, and Sims' speculum introduced; the anterior lip of the os is seized with a tenaculum forceps, and the cervix drawn downwards and forwards. An ordinary dressing or bullet forceps is then carried into the uterus, and the ovum seized and brought away whole or in part. If only a part of the ovum is removed by the forceps, which is frequently the case, then the curette should be introduced, and the contents of the uterus thoroughly and rapidly scooped out. The instrument which answers best for this purpose is the curette of copper wire, without a cutting edge, described in Thomas's work on diseases of women, but it requires to be very much larger. In using this instrument with reasonable care, no injury can be done to the uterus.

The uterus usually contracts promptly, to an extent sufficient to prevent hemorrhage, when its contents have been removed by the curette. If in very rare cases hemorrhage continues even when the uterus is perfectly empty, then ergot is indicated, and should be used without delay. If that fails to produce contraction, the uterus may be tamponed with sponge or cotton. Should the bleeding still persist, cotton saturated with persulphate of iron may be used. Dr. J. Marion Sims' method of using "iron-cotton," as he calls it, as a tampon to arrest uterine hemorrhage is the best. He uses a piece of whalebone, as long as a uterine sound, tapering to a point, and curved near the end. According to the length of tampon required, the extent of the whalebone is smeared with lard, and then wrapped with layers of "iron-cotton" until the tampon is the size required. It is then carried up to the fundus uteri, and held in place, while the whalebone is withdrawn. If the uterine tampon inclines to come away, a pad of cotton placed in the vagina will hold it in place. In ten or twelve hours the tampon may be removed.

The rules of practice may be very briefly recapitulated:

1. Where the symptoms of abortion are slight, and of short duration, efforts should be made to arrest it.

2. During dilatation of the os opium should be given, if there is any call for it, and ergot should be carefully avoided.

3. Hemorrhage should be controlled by tamponing the cervix, the hydrostatic dilator being the best for that purpose.

4. When the os is fully dilated, and the ovum is not promptly expelled, after the use of ergot, it should be removed by the forceps and curette.

5. Post-partum hemorrhage should be arrested by ergot and the intra-uterine tampon.

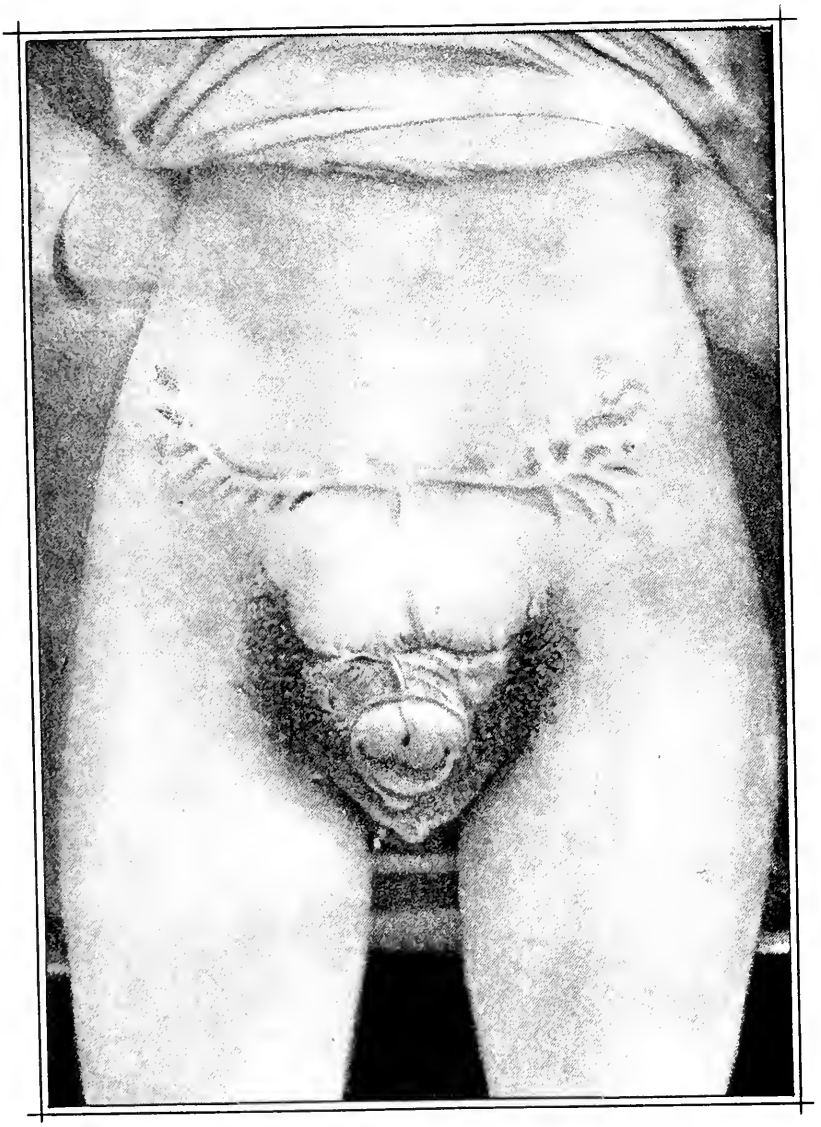
The inflammation of the uterus, peritoneum, or cellular tissue, which may arise, should be treated on general principles.—*N. Y. Med. Record.*

CALMATIVE EXPECTORANT.

℞ Syr. acaciæ, f℥ iv;
Antimonii oxysulphuret., gr. vi;
Ext. opii,
Ext. belladonnæ, āā gr. ii.—M.

Sig.—Tablespoonful every two or three hours in acute catarrhal bronchitis with fits of dry coughg.

From photograph taken two days before first operation.



From photograph taken six months after second and last operation.

THE MANAGEMENT OF DIPHTHERIA.

Dr. T. Prangley, in the *British Medical Journal*, gives a record of an outbreak of this disease. As to its management, he says:—

The local treatment I adopted in every case was the application of tincture of iodine (forty-eight grains to one ounce) to every part of the throat covered with membrane, at least once in twenty-four hours, and the inhalation of iodine vapor mixed with steam, but more especially the latter, if the larynx were invaded. If the membrane were firm in texture, and not too strongly adherent, I always removed it and applied the tincture of iodine to the denuded surface, and with the best results; for, although frequently the membrane would reform, yet it never regained its pristine condition. If the membrane were in specks or shreds, I applied the iodine over them, and in general half-a-dozen applications were all that was required to procure their dismissal, and in several instances two applications were sufficient. This local application of iodine acts, not only as a caustic, but, I believe, confers a modifying influence upon the secreting structure, and further brings into action the power of the absorbents; thus tending to retard the spread of the membrane and to promote the removal of that which is formed. I am aware that, in urging this treatment, I am at issue with many who contend that, this disease being a general one, depending upon certain changes in the blood by the introduction of a specific disease-poison, it is useless to attack the local manifestation of the disease any more than the pustules of small-pox. To those I would call attention to John Hunter's axiom, that two similar diseases cannot coexist in the system at the same time.

The general treatment was supporting and stimulating throughout. A liberal supply of beef-tea, wine and milk was frequently and regularly given, to maintain the system against the natural tendency to depression and exhaustion. In medicine, I rely upon chlorate of potash and tincture of steel, from three to five grains of the former with five to fifteen minims of the latter every four hours, according to age. When tracheal symptoms arise, I at once have recourse to the inhaler, beginning with ten drops, increasing to a drachm of the common tincture of iodine to a pint of boiling water, and letting the patient inhale as frequently as possible. In using this, one precaution is necessary, and that is not to begin with too large a supply of iodine, otherwise it is too irritating, causing the patient to cough, and making him unwilling to use it. I have found ten drops well borne to begin with; and, after a short time, we may gradually increase the quantity to a drachm to the pint without inconvenience. If this do good, which it undoubtedly does, it is evident it cannot be by any caustic action, but entirely through its modifying and absorbing influence upon the diseased tissue. I can refer to three cases in which this treatment was of marked utility. In cases where the fits of dyspnœa are severe and frequent, I have found nothing like an emetic of sulphate of copper, which generally expels a quantity of membrane from the larynx and trachea, and gives relief for a time, at all events.

In tracheotomy I believe we may place considerable reliance, although my experience is limited to one case, and that unfortunately a fatal one; yet I firmly believe that if it be resorted to soon enough, we may rescue many lives.

ON BACTERIA.

So much having been said lately about bacteria, our readers may be glad to read the following description of them, taken from a lecture by the able physiologist, Dr. J. Burdon Sanderson, published in the British *Medical Journal*.

The first fact that I shall advance with respect to bacteria is, that they are the smallest and least organized of all living beings. As regards size, it is best to judge by comparison with objects with which we are microscopically familiar. The most common rod-like forms are in length about one-third of the width of a blood-corpuscle; *i. e.*, about $\frac{1}{3000}$th of an inch, so small that, if we examine a liquid containing them, with the ordinary magnifying powers used for histological observations, we can scarcely be said to see them to any practical purpose. It is necessary to have recourse to the best microscopes and the highest powers, if it be desired to observe them in such a way as to arrive at useful results.

What grounds have we for stating that they are the lowest organisms? One is, that they present only very slight differentiation of parts; but in this sense they are certainly not simpler than many other forms that might be referred to. The chief ground for the statement lies in this, that they are much less *specific* in their characters—much more under the influence of the conditions under which they originate and are developed—than organisms of any other class. Just as in the higher animals, and in man himself, we call those functions lowest which are most completely automatic—*i. e.*, most completely under the guidance of known conditions—so also, as regards form, we recognize that while all animal and vegetable forms, even the highest, are moulded by circumstances to fit their places in the economy of nature, this moulding power—this adaptation of form to circumstance—becomes more and more obvious the lower we descend in the scale of development.

The next fact relates to the *habitat* of bacteria, to the medium in which they live, water. They inhabit water either as such in the ordinary sense, or in the various conditions recognized as *moisture*, whether occurring on damp surfaces or as filling the interstices of solid bodies, which bodies, when so impregnated with water, are said to be damp. Those who are familiar with chemical work, know that this quality of dampness goes a great deal further than the popular notion of it; that many things ordinarily called dry, yield, when subjected to the drying processes commonly used in the laboratory, evidences of being really moist. Consequently, moisture, regarded as a limiting condition of bacterial life, is a very wide and comprehensive one.

From this statement, it must not be understood

that bacteria do not exist in the atmosphere. But their existence there in an active form strictly depends on moisture. They attach themselves, without doubt, to those minute particles which, scarcely visible in ordinary light, appear as motes in the sunbeam, or in the beam of the electric lamp. It is by the agency of these particles that they are conveyed from place to place.

Notwithstanding that the word bacterium means a rod, and that many of the forms to be immediately referred to are not rod-like, I am obliged to use it, because it is used by others as a general term for the whole group of organisms known to botanists as *Schizomycetes*. This designation being obviously too long, I attempted, in 1870, to introduce the word *microzymes*, a word which was intended to denote the fact that, in the development of these organisms, the process of vegetation is always associated with chemical processes of a peculiar kind, in a way comparable to that in which the vegetation of the yeast plant is associated with the alcoholic fermentation. I forego the use of the word microzyme, for the reason I have mentioned, viz., that it has not been taken to, but I am not the less sensible that such a word is as much needed now as ever; for it is evidently inconvenient to say, as I now find myself compelled to say, that bacteria—rods—may be either globular, egg-shaped, or filamentous. Cohn classifies our organisms under terms expressive of these various forms, the most important being micrococcus, bacterium, vibrio, and spirillum. I have drawn these on the blackboard.

Bacteria have, as a rule, two states of existence, a state of activity and a state of rest. When a liquid teeming with bacteria in the active state is observed under the microscope, the attention is so riveted, that it is an effort to take away the eye from the instrument. The movements have been often described. In the case of rod-shaped bacteria, the axial movement, in which the rod advances or retreats in the line of its axis, the direction being frequently reversed, is the most common. This kind of locomotion occurs often by fits and starts, the body remaining in the intervals quite still, or assuming a pirouetting or spinning movement. In all rod-like bacteria, it is probable that the progressive or axial movement is associated with rotation, for, in observing the motion of vibrios, it is easy to see that they, in progressing, twist round the axis of the spiral. When this is the case, it looks as if the filament were executing a wriggling motion, *i. e.*, as if its body were contractile; but this is obviously deceptive. The mechanism of the motion is as little understood as those of *Oscillatoria*, which it closely resembles. It must be carefully distinguished from the passive motions which are exhibited by all particles of size comparable to that of bacteria, when suspended in a liquid of which the density does not differ very widely from their own. Certain forms of bacteria appear to be motionless in all stages of their existence.

TREATMENT OF MAMMITIS.

The following discussion at the Obstetrical Society of London, reported in the *Medical Times and Gazette*, contains a number of useful points.

Dr. W. Bathurst Woodman had been struck with the rarity of mammary abscess in animals, notwithstanding the forced abstinence from suckling which cats and dogs undergo from the drowning of their progeny, and in spite of the great distention of the udders of cows, mares, and other animals when driven to market, or for other reasons separated from their young. Acting upon this suggestion, he carefully abstained from those manipulations and questionable "gentle" frictions which have so long been customary in such cases, and with the most satisfactory results. Where an abscess was threatening, in place of employing liniments he enjoined perfect rest, the avoidance of all frictions and rough handling, and of suckling for a time, if possible, from both breasts, but at all events from the one most implicated; the horizontal position, careful application of strips of isinglass, soap, or lead plaster, or of an air cushion with a hole in its centre, or of bandages taking their purchase from the opposite shoulder. In addition to these measures he employed preparations of opium, belladonna, or chloroform, applied in compresses, or ice, moist warmth, and leeches; the local congestion being also relieved by diaphoretics, diuretics, and aperients; belladonna, iodide of potassium, and sedatives being given, if requisite. Illustrative cases of this method of treatment were given, exemplifying its advantages.

Dr. Barnes observed that the principle of rest had long been applied to the treatment of inflammation of the breast. He himself had learned the value of it from Trousseau, when a student in Paris, thirty years ago. That admirable physician taught and illustrated it with great earnestness. He placed the breast at perfect rest by carrying straps of leather spread pith (*emplâtre de vigo*) all round it, so as to lift it well up and exert constant support on the vessels. Thus œdema was prevented, and engorgement soon subsided. It must, however, be remembered that this form of pressure was ill borne in the first inflammatory stage. It was chiefly serviceable when suppuration had taken place and the abscess had been opened; the sac was then rapidly closed. In the earlier stage he had seen leeches do excellent service. The pressure then must be lighter.

Dr Ashburton Thompson said there were two modes of treatment not referred to in the paper, the administration of tincture of aconite, and total abstention from fluids during the necessary number of days. By giving minim doses of aconite every hour he had succeeded in cutting short inflammations of the breast which there was no doubt would otherwise have run on to suppuration very frequently; indeed, in three cases out of four. In cases of stillbirth he had hitherto found abstention from fluids sufficient in every case to avoid every kind of mammary disturbance. Ice was allowed in moderate quantity, and no other fluid, from the time of delivery until the fourth or fifth day, when the breasts generally return to their normal state of quiescence. He had had two cases recently in which this method of treatment

had been perfectly successful. The deprivation of fluid caused but little distress.

Dr. Edis, remarked that the chief thing to be remembered was to limit the supplies, to act on the bowels, and to insure perfect rest to the mammæ. He was accustomed to order a belladonna plaster to be applied to the mammary region within twenty-four hours of delivery, thus exercising pressure as well as arresting the secretion of milk. Abstinence from fluids and great moderation in diet were enjoined for the first few days, an aperient mixture of sulphate of magnesia and iodide of potassium being given twice or thrice daily, to relieve the bowels. The shoulders should be raised, and the arms kept perfectly quiet; the upper part of the chest being only lightly covered; any friction or drawing of the breasts being strictly prohibited. Where this method had been adopted he had never seen a single instance of mammary abscess. An evaporating lotion continuously applied to the mammæ was in some instances sufficient to prevent the secretion of milk; but the pressure obtained from the plaster was of great service, and effectually prevented the employment of any friction.

THE THERAPEUTIC VALUE OF IODIDE OF POTASSIUM.

As I have for several years paid considerable attention to the action of iodide of potassium, I venture to offer the following remarks as supplementary to Mr. Spurgin's article in the *Journal* of September 5th, 1874. This medicine has been accredited with many modes of action: thus, in struma as an alterative, in asthma as a sedative, and in diptheria as an antidote. To all these titles it may have a claim which different observers may think fairly borne out; but certainly the one distinct and indisputable action of iodide of potassium which I have noticed, is that of *stimulating the mucous membranes;* thereby influencing their action and promoting their secretions. Thus, as the results of its use, there are pain and sense of fulness across the eyes; increased secretion from the nares, mouth, fauces and bronchi: leucorrhœa and menorrhagia are greatly aggravated: and in persons very susceptible of its influence, diarrhœa is induced, not so much of a cathartic as of a dysenteric kind; that is, rather an increase of mucus with tenesmus than of serum with catharsis.

In a person suffering from an attack of chronic winter cough, the first symptoms are great difficulty in breathing, amounting to a sense of suffocation; hard, dry, racking cough, which the patient says he cannot subdue, while he expresses a belief that relief would be obtained if something could be brought up. The suffocation complained of has been attributed to a swollen state of the air-passages, obstructing the respiration; but there is a fair probability that the dry congested condition of the membranes is unfavorable to the interchange of gases requisite for blood-aëration, and the situation of the patient such that, however he may fill his lungs, his sufferings remain unrelieved. Whatever the actual state of matters at this point, certain it is, that as soon as expectoration sets in, the breathing is improved; and although the disease has by no means gone, the patient is so far better. Many hours of severe suffering may be obviated by taking advantage of the power of iodide of potassium to restore and promote the secretion of the bronchial membranes, thereby greatly relieving the congested blood-vessels, producing comparative tranquillity of breathing, and getting the patient over the first stage of the disease much sooner than he otherwise would. This, however, is possibly not its only value. For, here again, however opinions may differ as to the cause of the emphysema which from an early period exists in these cases, no one can have witnessed the severe and straining cough at the onset of the attack, without feeling that it is at least possible for either dilatation of the air-cells or rupture of the tissue of the lung to take place—complications much less likely to occur, so far as the cough is concerned, when the sputum has been rendered easier of expectoration and the irritability of the congested membranes removed by free secretion. It is further to be remarked that the action of the iodide of potassium changes the purulent character of the sputa in chronic bronchitis to a much healthier appearance. From this view of its operation, it follows, as a matter of course, that when free secretion of mucus has set in the medicine should be used with caution or altogether abandoned: and, therefore, when in the treatment of bronchitis—capillary or chronic—moist *râles* are fairly established, the further management of the case should be on the principle of preventing a too abundant secretion, at the same time employing such means as may assist expectoration and maintain the strength.

In asthma, iodide of potassium is recognised as a valuable medicine. Here the explanation of its action generally given, is that of a sedative relieving bronchial spasm: evidence of the presence of spasm being found in the wheezing and whistling sounds heard in auscultation. Either of these sounds, however, fairly suggests the question, how far a fit of asthma is dependent on, or, at all events, greatly aggravated by, an abnormally dry condition of the mucous membranes, acting as in the diseases already mentioned, which is relieved by the iodide restoring the secretion.

In diphtheria, iodide of potassium is looked upon by many practitioners as the best remedy we possess. Here its alterative and sedative actions are laid aside, and we have it doing duty as an antidote to diphtheritic poison: although, so far as can be seen, it exercises no new influence. In this disease, while there is free secretion from the nares, the breathing and cough-sounds are usually not very alarming, nor is respiration greatly impeded. It is not till the nares become dry—and doubtless the pharyngeal, laryngeal, and tracheal secretions diminished—that the formation of false membrane proceeds with fatal rapidity; hence, it does not seem too much to assume, so long as an iodide can keep up these secretions in such profusion as to prevent them from remaining on the parts sufficiently long

to undergo membranous change, so long will its action be beneficial. The idea of an antidote might be more satisfactory; but it cannot be substantiated; nor does this view of its action afford any indication as to what extent the medicine should be given; whereas, by paying attention to the degree of influence exerted upon the mucous secretions, the dose and frequency of administration may fairly be ascertained; if not, indeed, the knowledge acquired as to whether or not it is doing any good.

Without at present entering into a consideration of the influence of iodide of potassium on digestion and assimilation—the real sources of its so-called alterative power—I may state as my conviction, that in all the various manifestations of struma, etc., where this medicine is of service it acts, so far as the iodine is concerned, in stimulating the mucous membrane of the stomach and duodenum—possibly, by sympathetic action, the liver and pancreas also—to increased secretion, whilst its alkaline base tends to promote the digestion of fat and starch.

For the dose no absolute rule can be laid down, because, in few respects, indeed, do constitutions and temperaments differ more than in the relative irritability of the mucous membranes, and, consequently, the power of iodine to influence their action. Persons of the bilious temperament usually resist its power to a wonderful degree, whilst in those of the lymphatic, sanguineous, and, above all, the nervous, a few doses of two grains each will often suffice to cause coryza, ptyalism, pharyngeal irritation, and cough. In such diseases as diphtheria, the object should be to produce its influence as rapidly as possible, whilst in others, as struma, small doses long continued are preferable.

James Lawrie, M.D., Glasgow.

SUBACUTE OVARITIS.

By E. J. Tilt, M.D.

(Transactions of the London Obstetrical Society xv. 1874.)

The difficulty of correctly diagnosticating ovaritis arises chiefly from the fact that peritonitis obscures the diognosis by embedding the pelvic organs in a mass which forms, only too often, a hard pathological puzzle. The symptoms may be divided into those known as catamenial and objective.

Although subacute ovaritis may be met with during the whole period of ovarian activity, it is most likely to occur in young unmarried women, from fifteen to twenty years of age, particularly in those who are delicate in body, sensitive in mind, and with proclivities to tubercular disease. When met with in women presenting none of these peculiarities, the patients will be found to have suffered all their lives from menstrual irregularities. Women, suffering from this trouble, complain of habitual pelvic and mammary pain, and especially of a marked aggravation of the nervous symptoms of menstruation, the menstrual flow being usually too abundant, or, as occasionally happens, too scanty. The pain of subacute ovaritis is deep seated, persistent, moderate, bearable, extending from the ovarian region to the knee, and sometimes accompanied by numbness, coldness and anæsthesia of the anterior part of the thigh. The pain gives rise to a certain degree of hesitation in the patient's movements, since she has learned to know that a sudden motion will increase it. Firm pressure on the ovarian region increases the pain and the peculiar nausea which not unfrequently accompanies it. The pain somewhat subsides soon after menstruation, only to reappear, however, a few days before the next period. It is not relieved by a free flow of the menses. Menstruation is preceded and accompanied by a marked aggravation of the usual mammary symptoms of that period, the breasts being swollen, painful and hot. Hysterical phenomena may also be present.

A vaginal examination will often throw a great deal of light on the case, even if it does not finally settle the diagnosis. The left hand should forcibly depress the ovarian region while the two first fingers of the right hand examine, *per vaginum*, both sides of the body of the uterus. A forcible inclination of the cervix uteri to the side on which the disease is supposed to exist, stretches the connections of the fundus uteri and the ovary to such a degree as greatly to increase the pain. Sometimes the ovary descends into Douglass's pouch, where it can be felt as an ovid body, about two inches long, either more or less fixed by peritonitis, or fleeing from the finger, only, however, to return, as by a kind of ballottement. This body, when seized, will be found to be semielastic and peculiarly sensitive to pressure. A combined rectal and vaginal examination will often be found of great service in making out the diagnosis.

As regards treatment, a well appointed hygienic course for menstrual and inter-menstrual periods should be advised, combined with a tonic treatment. Six leeches should be applied to the suspected ovarian region, which should subsequently be painted with oleate of mercury for six weeks, after which counter irritants may be used.

In all cases where uterine disease coexists, it should be carefully treated, since it will be found impossible to relieve an ovaritis while a disease of the uterus is allowed to continue unheeded. In these cases, in addition to the above treatment, an injection should be ordered twice a day of acetate of lead. Not unfrequently, in these cases, marriage will be immediately followed by a severe attack of uterine inflammation.

THE TREATMENT OF SCABIES.

BY ROBERT LIVEING, M.D., F.R.C.P.,

Physician to the Middlesex Hospital, in charge of the Department for Skin-Diseases.

There are three principal methods of treating scabies: 1. By sulphuret of potassium baths; 2. By sulphur vapour-baths; 3. By sulphur ointment. It may be a satisfaction to those who cannot conveniently use the sulphur-baths, to know that the treatment by in-

unction of sulphur ointment is the most efficacious of the three methods.

There are three mistakes commonly made in treating scabies, especially in private practice: 1. In not applying the remedy over the skin of the whole body, except the head; 2. In using the ointment of the *British Pharmacopœia*, which contains one part in five, sublimed sulphur, and is too strong, especially for children; 3. In using the ointment for too long a time, and thus producing an irritable state of the skin. This often happens when people attempt to *treat themselves* for what they believe to be, itch. On the two latter points, most experienced observers agree; but on the former some difference of opinion exists. In a lecture recently published, my friend Dr. Tilbury Fox remarks: "It is a rule of prime importance in treating itch, to accurately determine at the outset how far the acari have disseminated themselves about the body. The reason is obvious. There is no need to apply parasiticides to parts in which the acari do not exist, because the irritation and eruption elsewhere are due to sympathetic action; and these irritated parts will get well, if the acari be destroyed, and they do not require the use of irritant remedies, such as parasiticides are, but soothing remedies. The practice is to apply the remedy to every part of the body where eruption exists in cases of itch. Clearly this is wrong, from what I have just said. My rule is this: If the disease be recent, if it be only slightly marked, if it began about the hands, and there be no cuniculi about the penis, I order the parasiticide to be rubbed into the interdigits, the palm of the hand, and the wrists, and I apply a soothing lotion to all other irritable parts of the body. . . . I repeat, then, by way of summary, in private practice, if the disease be slight and recent, use the parasiticide to the hands only, and soothe the other parts with some emollient or astringent lotion or ointment."

In the first place, I would remark, that in private practice it is in many cases next to impossible, and quite unnecessary, especially in women and girls, to examine the abdomen, thighs, and every part of the body, to ascertain how much of the eruption is due to scabies, and how much to sympathetic action.

The best plan of proceeding is, in my opinion, as follows. Having once ascertained that scabies exists, order one thorough application at night of mild sulphur ointment to the whole of the body, except the head, and direct the patient to sleep in the drawers, jersey, and socks that he has used the day before; this will secure the death of any stray acari about the body or in his underclothes; in the morning, he should use a warm-bath. The after-treatment should consist of the local inunction of the ointment, into those parts only which are especially affected, for two or three nights. In all mild cases, the cure by this plan is quite certain, and is attended with very little inconvenience. The objections to sulphur-ointment are its irritating qualities and its smell. The first is avoided by using an ointment made with half a drachm to two scruples of the precipitated sulphur to one ounce of lard. The precipitated is in finer powder, and less gritty than the sublimed sulphur, and more efficacious. A great part of the inconvenience arising from the smell of the sulphur may be avoided by using it only during the night. A drop or two of sandal-wood oil will quite disguise the smell. In cases of long standing, it is necessary to have the clothes baked; but a temperature of 190 deg. to 200 deg. Fahr. is quite sufficient, and the bed may be easily fumigated by using a little sulphur sprinkled on the cinders (not too hot) of a warming-pan.

It often happens that the irritation of skin remains after the scabies is cured, and thus induces people to go on with the sulphur treatment too long. Instead of doing so, a mild stavesacre ointment should be used, made with the oil of stavesacre and lard; this relieves the itching, and at the same time will kill any stray acari that may have escaped death from the sulphur. —*British Medical Journal.*

NEW DISCOVERIES IN HYDROPHOBIA.

A clever writer in *The Medical Record*, who occasionally entertains the readers of that excellent periodical with a series of articles which he calls "Pine Ridge Papers," treats in a most humorous but satirical manner the pompous style of certain learned medical gentlemen who enlighten their brethren from time to time, as occasion offers, with reports, wonderful for precision and verbosity, of their professional observations on the nature, history, and treatment of disease and the final post-mortem appearances, of course. The following specimen we consider an intellectual treat, and might have been written by Artemus Ward or Mark Twain:—

"Since I last wrote I have had an opportunity of performing an autopsy upon one of the dogs under observation. The patient was a Scotch terrier of an erratic temperament, and, except for the slight eccentricity of nipping any one who might be passing him in the dark, he had a quiet disposition. My attention was first directed to the possibility of his having hydrophobia by the fact that one day on entering my stable I caught him chewing a portion of the leg of my pants with evident relish. Withdrawing my leg he still persisted in his hold, pulled and shook his head as if with a determination to tear out that portion of the fabric for a vicarious meal. During all this performance there was a marked twitching of the tail and a peculiar expression to the eye, half significant and half determined, which reminded me of one of the pathognomic symptoms of emotional insanity. As the animal had not yet inserted his teeth into my skin, I felt composed, and had an abundance of opportunity to study the symptoms with the requisite care to make a correct diagnosis. During the whole time that his jaws were clinched, the spasmodic action of the tail continued at regular intervals, proving that the disease was a purely nervous affection. If we accept such a view, and are able to make out the nervous connection between the muscles the jaw and those of the tail, I think we can very satisfactorily explain the reason why the tail is drawn so tightly between the legs when the masseter muscles are relaxed in the last stages of the disease. I only throw out this

suggestion because, in all my reading upon the subject, I have never met with a similar observation; hence I am glad of this opportunity to place it on record. Inserting the bulb of the thermometer into the left ear, the animal bent his body laterally in the opposite direction, and for a moment seemed to have a tonic spasm, clearly proving that the power of reflex action still remained.

Having thoroughly satisfied myself that the animal had hydrophobia, I caused my attendant to pass a collar around the dog's neck and fasten thereto a chain. The collar was of leather, one inch and five-eighths wide by one sixteenth of an inch in thickness, and provided with a large stout buckle. The chain was the ordinary one "sold in our shops." During the operation of ligating the neck, and in order to prevent my attendant from being bitten, I engaged the dog's attention by a to-and-fro motion of my leg, thus increasing his hold. This I have found, by an experience in one hundred and fifty-two similar cases, to be very effectual, provided the animal's teeth have not already entered the flesh.

After being conducted to the kennel and secured, the attendant had a narrow escape. While in the stooping posture, pouring some water from a pail into a smaller vessel, the dog leaped and snapped at his buttocks, and just missed the skin. By a timely jump, no other injury than a loss of a portion of the pants was suffered. Immediately on being released the attendant gave the dog a smart kick in the perineum, when the animal uttered a short yelp, retired to the corner, and had an abundant evacuation from the bowels, at the same time urinating freely. This may have only been a coincidence, but I refer to the circumstances to show that the sphincters were in good condition, and that the posterior extremeties were not paralized.

I may state, in passing, that this animal was kept under constant observation, as are all my other dog patients, night and day, each watcher being relieved every two hours. The enclosure is abundantly shaded by trees, each kennel is supplied with a curled hair mattress, a urinal, earth-closet, and a special drain for subsoil moisture. Besides this, each patient is regularly supplied with ice-water, by direction of the Society for the Prevention of Cruelty to Animals. I mention these facts to show the facilities I have for treating these cases.

Well, to make a long story short, the patient met a violent death by attempting to climb over his kennel, with a short chain, and falling on the wrong side.

Before proceeding further, I may state that the portions of pants that were lacerated by the dog's teeth were carefully cut out for purposes of analysis. I shall confine myself to a description of that portion removed from my own person. Examined with the naked eye, there were six distinct perforations by the animal's teeth, and one tear an inch long, slightly smeared with saliva. No blood visible. Examined under the microscope, the damp portions of the cloth were found to consist of a glairy mucus with a mixture of salivary corpuscles, which were mostly congregated around the perforations. Besides this, there were numerous granules, spindle-shaped cells, fibres, oil globules (high refraction power with a short focus), the whole mixed in a confused stroma of woollen fibre. Except for the oil globules and granules, the microscopic examination was negative. The fabric being treated with dilute acetic acid, gave rise to effervescence, due to the accidental presence of some whitewash. A drop of concentrated sulphuric acid gave rise to a momentarily brilliant red stain, followed by a marked and immediate loss of substance. Except for the character of the stain the same may be said for nitric acid tried in a similar manner. Examined again under the microscope with a high power, oil globules and granules still existed in great quantity with broken-down woollen tissue. With the view of obtaining some extractive matter, the fabric was then digested in a retort heated to redness. The cloth quickly curled upon itself, became crisp, and gave forth a characteristic odor of burnt wool. Nothing but ashes left in the retort. (This I intend to send to a young medical student, a friend of mind, who is taking a practical course in a laboratory.)

Now we shall proceed to the most interesting part of the autopsy. Cadaveric rigidity marked. Froth oozing from the mouth; abdomen tympanitic; eyes congested; mark of cord around the neck; marked turgidity of vessels of the hemispheres and effusion in the arachnoid. Aside from the ordinary lesions of suffocation, I noticed a punctate injection in the left optic thalamus, an embolus in the middle meningeal artery, a thrombosis of the left lateral sinus, and a small clot quietly undergoing fatty degeneration in the left lateral ventricle. At the point where the spinal cord was separated at the autopsy, there was a marked lacertion. The corpus striatum was intact.

The larynx was filled with mucus, which I intend to analyze and report upon. The brain of the animal was at once placed on ice, to prepare it for microscopic examination.

PINE RIDGE, ON THE HUDSON.

CARDIAC DILATATION.

BY ALFRED L LOOMIS, M.D., PROFESSOR OF PRACTICAL MEDICINE AND PATHOLOGY IN THE MEDICAL DEPARTMENT OF NEW YORK UNIVERSITY.

(Phonographically reported for THE MEDICAL RECORD.)

GENTLEMEN:—To-day I will invite your attention to the subject of cardiac dilatation, which in its causation and anatomical changes is closely allied to cardiac hypertrophy, the subject of our last lecture.

By the term *cardiac* dilatation, you may understand a condition of the heart in which there is an increase in the capacity of its cavities; but the contractile power of the organ is diminished.

There are three recognized forms or stages of *cardiac dilatation*.

First:—Simple cardiac dilatation, in which the capacity of the heart cavities is increased without any marked change in the cardiac walls. Such a condition is apt to occur in connection with con-

valescence from any disease in which there has been great impairment of nutrition, such as typhoid fever, etc.

Second :— Hypertrophous cardiac dilatation.— In this form there is increase of the heart-cavities, accompanied by a slight increase of the thickness of the heart walls ; but the contractile power of the heart is diminished. This condition may occur as the result of a degeneration of eccentric hypertrophy, or it may occur independent of any hypertrophy, of the cardiac walls.

Third :—Atrophic cardiac dilatation.—In this form the capacity of the heart cavities is markedly increased, and the cardiac walls are markedly thinner than normal. Sometimes the ventricular walls diminish to not more than two or three lines in thickness, and the auricular walls may become so thinned that they will present the appearance of a simple membrane. Under these circumstances the contractile power of the heart is almost lost. Anatomically as well as clinically the significance of cardiac dilatation is in proportion to the excess of the capacity of the cavities over the thickness of the cardiac walls. A cardiac cavity may be very much increased in capacity, but so long as there is a corresponding increase in the muscular power of its walls sufficient to meet the demand of the increased work they are called upon to perform, there will be little or no disturbance to the general circulation. Eccentric hypertrophy and hypertrophous dilatation approach each other very closely, and it is often very difficult to draw the line of separation between them.

Morbid Anatomy.—One or all of the heart cavities may be the seat of dilatation. The shape of a heart when it has undergone dilatation is changed according to the cavity which is the seat of the dilatation. If the dilatation is confined to the right ventricle, the heart will be increased in breadth ; while if the dilatation affects mainly or only the left ventricle, the heart will be increased in length. Ordinarily when one cavity is dilated the remaining cavities are more or less affected in the same manner.

Cardiac dilatation occurs most frequently in the auricles : next in the right ventricle ; and last of all in the left ventricle. While the left ventricle is less liable than the right to become the seat of dilatation it is more liable to become the seat of hypertrophy. When all the cavities are dilated, the entire organ is increased in size, and assumes rather an ovoid shape. When the ventricles are excessively dilated, the trabeculæ are sometimes reduced to the condition of fleshy tendinous cords. When the walls of the left ventricle are very much thinned, they collapse when the ventricle is opened. The anatomical changes which take place in the muscular tissue of the dilated cardiac walls vary with the degenerative process which precedes and attends the dilatation. When it results from pericarditis or myocarditis, there is serous infiltration and granular degeneration of the muscular fibres. When it is the result of fatty metamorphosis the muscular fibres undergo fatty degeneration, the process of which will be described under the head of fatty heart.

In hypertrophous dilatation, it is often impossible, even by microscopic examination to determine the exact changes which the muscular fibres undergo ; the abnormal state of the muscular fibres can only be determined by the other evidences of feeble heart power. You must be careful not to mistake a heart distended with blood and relaxed by putrefaction for a dilated heart. The distinctive marks of a heart softened by the putrefactive process are its extreme softness, its saturation with the coloring matter of the blood, and the evidences of decomposition in other parts of the body. Closely connected with the morbid anatomy of cardiac dilatation, is its causation.

Etiology. The causes of cardiac dilatation vary very widely. One class of causes may be included under the head of the immediate changes which take place in the muscular tissue of the walls of a heart that has undergone dilatation. I have already alluded to these. First, we have the changes in the muscular tissues which accompanies pericarditis and endocarditis ; second, fatty degeneration of the muscular fibres ; third, a cardiac dilatation which occurs with certain forms of protracted disease, such as typhoid fever, where the most careful microscopical examination will fail to detect any uniform change in the muscular fibre, except, perhaps a general atrophy of all the tissues. One or all these tissue changes may be regarded as causes of cardiac dilatation : again all the causes of cardiac hypertrophy may become the causes of dilatation in a heart which has a feeble resistant power. This group of causes may be classed under three heads :—*First : internal pressure during a cardiac diastole.* The wall of a heart may become weakened by the changes which occur in certain prolonged diseases, or it may become the seat of serous infiltration or fatty degeneration ; then an abnormal pressure within its cavities during its diastole will cause the cardiac walls to yield beyond their normal limits. Such distension is certain to be followed by permanent dilatation of its cavities. Most of the valvular lesions which have recently occupied our attention may be the direct cause of such internal pressure during the cardiac diastole, after the manner I have already described in connection with the etiology of cardiac hypertrophy. Generally (as I have endeavoured to show you), when the cardiac cavities become distended beyond their normal limit, and thus temporarily lose their contractile power, rapid hypertrophy of the cardiac walls is developed, which compensates, and to a certain extent overcomes the dilatation. But if the cardiac walls are enfeebled by any of the degenerative changes to which I have referred, such compensating hypertrophy does not take place, and any valvular lesion which will permit a double current of blood to flow into a cardiac cavity during its diastole, the heart walls having become enfeebled by degenerative changes, will give rise to cardiac dilatation. *Second :* when the muscular tissue of the heart is the seat of primary fatty degeneration, after a time dilatation of the cavities takes place, the normal blood pressure being sufficient to produce it. In the same manner will a heart become dilated when its walls are the seat of myocarditis. That form of cardiac dilatation which follows typhus and typhoid fever or chlorosis, usually disap-

pears when the attenuated muscular fibres of the heart, with the rest of the muscles regain their normal condition; but the dilatation which results from fatty degeneration of the muscular walls of the heart steadily increases. *Third:* there is still another cause of cardiac dilatation which has already been referred to in connection with the history of valvular diseases; that is, degeneration of the muscular substances of the heart which is the seat of eccentric hypertrophy. The manner of its development I have already described. The dilatation does not occur in this class of cases until long after the development of the valvular diseases which give rise to the hypertrophy. Usually the hypertrophy becomes very extensive before the degenerative dilatation commences; but when it once begins, it progresses very rapidly, and the failure of heart power is attended by very distressing symptoms. The power that obstruction to the pulmonary circulation has in producing dilatation of the right ventricle has been considered in connection with valvular diseases of the heart. When these obstructions exist, eccentric hypertrophy rather than dilatation is generally developed.

Sypmtoms. The symptoms that attend the development of cardiac dilatation chiefly depend upon the character and seat of the dilatation. In simple cardiac dilatation, the heart walls possess normal power, but the capacity of the cavities is increased, and the amount of blood to be expelled with each cardiac pulsation is greater than normal, consequently there is labored action of the heart (often to such an extent that it may readily be mistaken for the action of a hypertrophied heart), yet the force of the heart's action does not increase, and therefore we have a feebleness of the radial pulse. The rhythm of the heart's action will not be disturbed. In that form termed atrophic dilatation you have a very different state of affairs. The heart cavities are not only dilated, but the walls of the cavities are thinner than normal,—the heart power is insufficient for the expulsion of the blood from its cavities, and as a result, there is a labored action, a markedly feeble radial pulse, and the heart, on account of the increased amount of labor, staggers with action, the arteries are improperly filled with blood, the veins become over distended, the rhythm of the heart's action is disturbed, and the radial pulse becomes weak and intermitting. These latter are points of special importance, as affecting the question of prognosis; for, if a patient has all the symptoms of cardiac dilatation without an irregular and intermitting pulse, the prognosis is comparatively good. The same disturbance of the circulation occurs in that form of dilatation which is developed from the degeneration of eccentric hypertrophy.

The first, and perhaps the most constant symptom, which is common to all varieties of cardiac dilatation, is cardiac palpitation. At times this palpitation is very severe and distressing. There is almost constantly a sense of painful palpitation in the region of the heart. Very soon after the palpitation has manifested itself, the patient will begin to suffer from dyspnœa on slight exertion: when he is quiet he suffers very little. As the irregularity of the heart's action and the palpitation increases, the patient's countenance assumes a pale, languid, anxious expression, with more or less lividity of the lips. On excitement or active physical exertion, the entire face and neck become livid; the pulse, which usually is regular, for a time becomes irregular and intermittent. In this condition patients often live some time in comparative comfort, but they are conscious, not only of a loss of physical, but of mental power, and are troubled with dyspeptic symptoms, and a sense of fulness about the epigastrium. As the disease advances, and the cardiac dilatation reaches a point at which it is always troublesome, the patient has constant dyspnœa, which becomes severe on slight exertion: cardiac palpitation is always present, and often accompanied by attacks of syncope. The countenance now assumes a still more anxious expression, the lips retain a constant lividity, and the pulse is still more irregular and intermitting. With these symptoms there will be scantiness of urine, and it will very likely contain albumen. The feet and ankles become œdematous, the œdema gradually extend upwards, until the patient is in a state of general anasarca. The respiration now becomes very difficult, so much so that the patient cannot lie down, but is obliged to sit with his head inclined forward and resting upon some firm support, and he is usually unable to utter more than a single word at a time. The extremities become cold and blue; the mind wanders, and the patient dies from general anasarca with pulmonary œdema. In nearly all cases of cardiac dilatation, when it becomes extensive, the surface of the body will have a yellow tinge, showing that the circulation through the liver is more or less disturbed.

During the latter stages of this affection, most violent paroxysms of dyspnœa will occur, and it will seem as though the patient must die in some of them, yet they rarely prove fatal; but the patient passes into a state of coma and dies unconscious. In extensive cardiac dilatation there is always danger from sudden syncope, which may prove immediately fatal. To describe to you *all* the phenomena that attend the different degrees of cardiac dilatation modified as they are by the idiosynerasies of the individual, as well as by the varying extent of the valvular changes which may be present, would be almost an endless task.

The phenomena already described, which are present to a certain extent in all cases, are sufficient to lead to at least a probl matical diagnosis. Besides, the physical signs of this affection, if properly appreciated, are very distinctive and generally will remove all doubts in connection with a case. You must be prepared, however, to find that the symptoms which develop in different cases greatly vary; but the variation depends more upon the valvular lesions which are developed in the course of the dilatation than upon the dilatation itself.

Physical Signs.— Upon *inspection* it will be noticed that the visible area of the apex beat is increased; but it is so indistinct that it will be difficult to determine by inspection the exact point where the apex strikes the walls of the chest. This is espe-

cially the case if the chest walls are covered with much adipose tissue or are at all œdematous.

In persons with thin chest walls you will sometimes notice an undulating motion over the whole of the precordial space. The precordial region is never prominent as is sometimes seen in eccentric hypertrophy.

Upon *palpation* you will readily distinguish dilatation from hypertrophy by the feebleness of the cardiac impulse. Although it can sometimes be felt as far to the left as is the axillary line, yet there is an absence of the lifting, forcible impulse which attends cardiac hypertrophy. It is often difficult to determine the exact point of its maximum intensity, but it will be noticed that over the entire precordial space there is an undulating motion, and the apex beat will be diffused, wanting in force, and resembling a feeble step. Sometimes with this character of apex beat a purring thrill will be present. I stated to you that a purring thrill with the apex beat was almost characteristic of mitral stenosis; but you may have a purring thrill with mitral regurgitation, when the regurgitation is associated with cardiac dilatation.

Percussion gives a greatly increased area of lateral dullness. The area will be increased to the right of the right side if the heart is the seat of the dilatation and in some cases the increase will extend an inch or more to the right of the sternum. If the left side of the heart is the seat of the dilatation, the area of dullness will be increased to the left, and may extend well into the axillary space.

The shape of the increased precordial area will be oval. This point is of importance in the differential diagnosis between cardiac dilatation and pericardial effusion. The area of the superficial cardiac dulness is not increased in the same proportion as the deep-seated, as is the case in cardiac hypertrophy. Dilated auricles are recognized by an upward increase in the area dullness. When the jugular veins are permanently dilated and knotted, the existence of dilatation of the right auricle will not be difficult to determine.

Auscultation.—The sounds of a dilated heart are short, abrupt and feeble. The second sound is often inaudible at the apex, and the two sounds are of very nearly equal duration. Whenever a cardiac murmur has existed prior to the development of the dilatation, as the dilatation develops the rhythm of the murmur is lost, and it becomes simply a confused murmuring sound. This condition has been denominated asystolia. It is a condition in which you are unable to determine whether the murmur is synchronous with the first or second of the heart: and pauses or intermissions occur at irregular intervals, which are of more frequent occurrence during exercise than when the patient is quiet. When the asystolic condition is present, prognosis is very unfavorable, independent of the general condition of the patient; for it shows that, in addition to the valvular lesions which may be present, cardiac dilatation has been developed to such an extent as to give rise to complete confusion of the normal heart sounds. Under such conditions the patient is liable to die at any moment. Asystolism is generally accompanied by a diffused cardiac impulse which is peculiar, and is readily appreciated by the ear as it rests over the precordial space. The respiratory murmur is diminished in intensity over the whole of the upper portion of the left lung.

Differential Diagnosis.—The diagnosis of cardiac dilatation rests mainly on the following conditions: Feeble action, undulating impulse, indistinctness of apex beat; lateral increase in the area of percussion dulness (very nearly square in its outline); short, abrupt, and feeble heart sounds; feeble, irregular, and intermitting pulse, accompanied by the general symptoms of systemic and pulmonary obstruction and congestion.

The differential diagnosis between cardiac hypertrophy and cardiac dilatation is never very difficult. The symptoms of the two conditions differ very materially. For instance, the heart sounds are intensified in hypertrophy and feeble in dilatation. In both cases there is an increased area of apex beat; but in hypertrophy it is full, distinct, and forcible; while in dilatation it is feeble, diffused, and indistinct. An individual with cardiac hypertrophy apparently has a more than normally vigorous and forcible action of the heart, which is increased by active exercise, and has none of the feebleness of heart action which attends the person with cardiac dilatation. The fact that an individual has had cardiac hypertrophy with all its attendant symptoms, but now has a tired expression of countenance, livid lips, and daily decrease of physical vigor, accompanied, it may be, by œdema of the feet, shows that cardiac hypertrophy has become cardiac dilatation. Dilatation of the right side of the heart, in addition to the signs already detailed is to be recognized by changes produced in the veins. The presence of distended, irregular, turgid jugular veins, tells very positively of dilatation of the right auricle: and pulsation in the jugulars, accompanied by feeble heart action and increase in the area of cardiac dullness upon the right, speaks very distinctly of dilatation of the right ventricle associated with tricuspid regurgitation. It is sometimes somewhat difficult to make a differential diagnosis between pericarditis with effusion and cardiac dilatation. In pericarditis with effusion the area of dullness is increased, and there is a feeble apex beat, and sometimes an undulating impulse, all of which are present in cardiac dilatation. The heart sounds, however, in pericarditis are more removed from the surface than they are in dilatation, and the area of percussion dullness is pyriform while in dilatation it assumes nearly a square shape. Besides these distinguishing features, you will rarely meet with a case of pericarditis, even with effusion, when you may not hear a friction sound at some point; but in cardiac dilatation there is an entire absence of friction sound, no matter in what position the patient may be placed. In addition to these differences in the physical signs, the history of the case and the accompanying rational symptoms will be of great assistance in solving the question of differential diagnosis between either cardiac dilatation and pericarditis or cardiac hypertrophy and fluid in the pericardium. The differential diagnosis between enlargement of the heart, either from dilatation of its cavities or hyper-

trophy of its walls and thoracic tumors, will sometimes present itself. Both of these cardiac conditions may be developed as the result of, or in connection with, thoracic aneurisms. One very reliable differential sign is the direction of the increased area of percussion dullness in thoracic aneurisms and mediastinal tumors, for they always enlarge upward and to the right or left; while in cardiac enlargement the area of dullness is increased in a lateral direction and downward. This fact, taken in connection with the other physical and rational signs of aneurism, is generally sufficient for the differential diagnosis between these conditions.

Consolidation of lung tissue in the region of the heart may give rise to some of the signs of cardiac enlargement, but the other attending physical signs of pulmonary consolidation will enable you to distinguish between the dullness on percussion produced by the pulmonary consolidation and the increased area of dullness produced by the cardiac enlargement.

Prognosis.—The prognosis in cardiac dilatation is always bad, and the danger to life is increased in proportion to the excess of the capacity of the cavities over the thickness of their walls. The more the capacity of the cavities is increased, the greater the thinning of the cardiac walls, and the greater the danger to life. Feebleness of the general muscular system and impoverishment of the blood greatly increase the danger. If these patients have been subject to paroxysms of dyspnœa and attacks of syncope, the prognosis is especially bad, for then there is constant danger of sudden death. The dangers attending any intercurrent pulmonary disease are always great.

Whenever dropsy of any kind has been developed, prognosis is very bad. When this condition is developed, few patients, even with the best of care, live more than eighteen months; the majority die within one year. In those cases in which the pulse is regular, or only becomes irregular after violent physical exertion, the prognosis is comparatively good, for much can be done to relieve and prolong the life of such patients. When general anasarca has been developed, and the patient is no longer able to assume the recumbent posture, you will be able to give temporary relief, but it will be only temporary. This brings us to the question of treatment.

Treatment.—As regards complete recovery, the treatment of cardiac dilatation is altogether unsuccessful. It is not a curable disease. Even the good effects of palliative measures are only temporary. There are, however, two important objects to be aimed at in the management of a case of cardiac dilatation.

First, maintenance of the general nutrition at the highest possible point, as the most certain means of preventing flaccidity of the cardiac walls; *second*, prevention, as far as possible, of all irregular or violent action of the heart. To obtain the first object, the diet must be of the most nutritious character, should be taken in small quantities, and at short intervals. An exclusive milk diet will often be found most advantageous. Stimulants must be taken only in small quantities, and with the food. When symptoms of anæmia are present, *iron* may also be administered with the food. As a rule, the daily administration of iron to a patient with dilated heart is safe.

The patient should have the greatest amount possible of fresh air, and should be kept under the very best hygienic influences. The skin should be kept active, and slightly stimulating baths may be employed for the purpose of increasing the power of the capillary circulation.

To attain the second object, this class of patients must be placed under the strictest rules with regard to exercise. They should never allow themselves to be placed in such circumstances as to render necessary sudden and violent exercise, for a single violent physical exertion may jeopardize the life of any patient with cardiac dilatation. Every such exertion carries the point of resistance in the cardiac wall a little beyond what it can never regain. Flannel should be worn next the skin. A dry bracing air, generally, agrees best with this class of patients. As regards the remedial agents to be employed in the management of cardiac dilatation, each case must be studied by itself. All exhausting discharges must be arrested. If hyperæmia of the liver and other abdominal viscera is present, it must be relieved by the occasional administration of an aloetic or mercurial purge. Excessive purgation, however, is not admissible, but a daily movement of the bowels, without exhausting catharsis, is important. When there is loss of appetite and impaired digestion, vegetable tonics and mineral acids are indicated. Those remedial agents which have a direct effect upon the heart itself are all-important in the management of this form of cardiac disease. The most important and most serviceable of this class of remedies is digitalis. It can always be administered in full doses, or at least in sufficiently large doses to regulate the heart's action. Often, when the feet become œdematous and the patient cyanotic, this remedy has a wonderful effect, and may often entirely remove, temporarily at least, all unpleasant symptoms. When the heart's action has been regulated by the use of the remedy, it may be continued in smaller doses, and the small doses should be continued for a long time. If, after a time, the heart's action cannot be controlled by the digitalis, belladonna or opium may be combined with it. The effect of such combination is to tranquillize the excited heart; but the tranquillizing effect will be only temporary. This combination of remedies, then, should only be resorted to when the digitalis has been thoroughly tested and has failed. In the use of digitalis the same restriction should be observed which was mentioned in connection with the treatment of other cardiac diseases, namely, it should never be used indiscriminately, for the time will come, sooner or later, when the remedy will cease to have any controlling effect upon the heart and then we are helpless. It is always desirable to postpone that period as long as possible.

Should the heart become nervously excited during the administration of the digitalis, as it often does,

various antispasmodic remedies may be employed. Paroxysms of dyspnœa may be temporarily relieved by hydrocyanic acid, cannabis Indica, ether, and dry cupping along the spine. During the time when the disease is making slow progress, a great variety of measures may be indicated, and may afford temporary relief; but your chief reliance will always be upon digitalis and iron, associated with the most nutritious diet, and a careful avoidance of all excitement and undue physical exertion.—*New York Medical Record.*

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TO OUR SUBSCRIBERS.

It is our intention to inclose in our next issue, accounts to all who may be indebted to us. Will our Subscribers kindly remember us, and remit promptly?

THE TREATMENT OF EPISTAXSIS.

Dr. Beverley Robinson, Surgeon of the Manhattan Eye and Ear Hospital, publishes in the New York *Medical Record* of March 20th an interesting case of epistaxsis. The patient was admitted and operated upon for cataract, and when convalescent was attacked by severe bleeding from the nose. All the usual remedies had recourse to in such cases were tried, including the most powerful local astringents and the internal use of ergot and quinine, but without success. The patient was in a serious condition, when compression of the facial arteries upon the superior maxillary bone, just before they reach the alæ of the nose, was made by means of two small pads of lint. These were sewed to a piece of tape at the proper distance from one another, and the ends of the tape were passed across the cheeks and above the ears, and tied securely behind the occipital bone. The result was most satisfactory, the hæmorrhage being at once controlled, but for several days it returned whenever the pads were removed.

A NICE PRACTICE FOR SALE.

The Chicago *Medical Examiner* advertises a practice at one of the favorite Southern springs for sale. The yearly receipts amount to upward of $40,000, and $20,000, cash or approved paper, is asked for it. The reason given for the retirement of the present occupant is that he has amassed a fortune. No wonder!

THE HOMŒOPATHS IN ONTARIO.

Our readers will perhaps remember that some months ago the homœopathic members of the Ontario Medical Council, headed by Dr. Campbell of Toronto, retired from it in a body, and intimated their intention of applying to the Ontario Legislature for separate legislation. We now learn that they have reconsidered their determination, and will proceed in June next along with the other bodies to elect representatives.

AMERICAN MEDICAL SCHOOLS.

The fourteenth graduation class of Bellevue Hospital Medical College, numbering one hundred and ninety-four, received the degree of M.D. on the 25th of February.

The sixty-eighth graduating class of the College of Physicians and Surgeons of New York, numbered one hundred and eight, received the degree of M.D. on the 2nd of March. Rush Medical College of Chicago has just held its thirty-second graduation meeting, and sent forth a graduating class of seventy-three.

The Medical Department of the Nashville University has just graduated fifty-eight students: the Medical College of the University of Wooster, thirty; the School of Medicine in connection with the University of Maryland, Baltimore, fifty; the College of Physicians and Surgeons at Baltimore, thirty-nine; Yale College, seven; Syracuse University, eleven—one of whom was a female.

A MAGNIFICENT BEQUEST.

According to the Philadelphia *Medical Times*, a Mr. Hopkins of Baltimore, lately deceased, has bequeathed the sum of $3,500,000 for the endowment of a university, and to facilitate the working of its Medical Faculty he has left a similar sum for the endowment of an Hospital in connection with it.

ERRATA.

In Dr. Benson Baker's paper on fibrinous concretions of the heart and large vessels, published in the January number of the *Record*, occur several typographical errors. On 1st column, first page, last line, for "inerease in color" read "increase in *water*"; second column, first page, second line from top, "in an alcoholic form" read "*alotropic* form"; on first column, page 431, line 20 from the bottom, the "connection formed in the veins" read "the connection between the concretions formed in the veins"; page 432, 2nd column, 3rd line from top, for "Post neither" read "Post *Mortem*" 13th line from top, for "catolytic" read "*catalytic*"; page 433, 1st column, 12 lines from bottom, for "coirhotic" read "*cirrhotic*" page 434, 23rd line from bottom, for "Dr. Dulcher" read "Dr. Butcher."

PERSONAL

Dr. R. F. Godfrey, (M.D., Bishop's College,) E. G. Anderson, W. A. Molson, J. L. Ritchie and R. A. Stevenson, (M.D., McGill College) have passed the Primary Examination for the membership of the Royal College of Surgeons of England.

Dr. J. R. Smallwood (M.D., McGill College, 1868) has established himself at St. Clet, Que.

Dr. Lemieux (C.M., M.D., Bishop's College, 1874) has removed from St. Urbain to Ormstown, Que.

Sir Geo. Duncan Gibb, Bart. (M.D., McGill College, 1846) of Bryanston St. Portman Square, London, lately assistant physician to Westminster Hospital, has been promoted to be physician to the Hospital in consequence of the death of the well known Dr. Ainstie. We congratulate our friend, (whose former kind acts were repeated during our visit to London in October last) on this acknowledgment of his ability and worth.

Dr. Jos. Workman (M.D., McGill College, 1835) has tendered his resignation to the Government of his position of Medical Superintendent of the Toronto Insane Asylum. Dr. Workman has held his position for the past twenty-five years, and retires on account of advanced age. Dr. Workman's ability on mental diseases is universally acknowledged all over the American continent.

Dr. Robert Kains of St. Catharines passed his examination before the Royal College of Surgeons of England on the 25th January last.

Dr. Eliphalet G. Edwards has been elected President of the Western and St. Clair Division Medical Association.

Dr. Toner of Washington, U.S., has issued a very valuable work on the Early Medical History of the United States. We see it favorably noticed in our American Exchanges.

Dr. Stimson, of St. George, Brant County, Ont., has removed to Detroit, Michigan, where he proposes to locate himself permanently.

Dr. J. Baker Edwards, Professor of Practical Chemistry and Microscopy in the Medical Faculty of Bishop's College, has been appointed Consulting Chemist to the department of Inland Revenue, as food analyst for the principal Inland Revenue districts of the Province of Quebec, including the Montreal, Prescott, Eastern Townships and Three Rivers Districts. This is the first appointment under the Act passed during the last Session of Parliament for "The Prevention of the Aduteration of Food, Drink and Drugs."

This Act differs chiefly from the corresponding Legislation in Great Britain in being initiated and executed by the Department of Inland Revenue instead of by various municipal and local authorities. This will give a consistency and uniformity of action to the proceedings, which it is expected will overcome the chief difficulties which have been experienced in its operation in Great Britain.

Dr. Botsford of St. John, New Brunswick, President of the Canadian Medical Association, intends representing it at the meeting of the American Medical Association, which takes place at St. Louis, Mo., in May.

Dr. Montrose A. Pallen of St. Louis, who resided in Montreal for several years during the Southern Rebellion, and who in 1864 took the degree of M.D. at McGill College has accepted the position of lecturer on Surgical Diseases of Women, in the New York University. Dr. Pallen has made this subject a specialty, and has been an enthusiatic worker at it for years.

Dr. George A. Baynes of Montreal has just completed a very practical and instructive public course of lectures on Hygiene. A vast amount of valuable information was given, which cannot fail to be highly beneficial to all who attended the Course.

Dr. Colin Sewell, (M.D., University of Edinburgh,) who left Montreal two years ago for Australia, returned to Canada by the S.S. Polynesian on 16th of March. We hear he intends to commence practice in Quebec.

Dr. Andrew J. Cattanach (M.D., McGill College, 1871) is at present surgeon of the Allan S. S. Polynesian.

Dr. Benson Baker, formerly surgeon Allan S.S. Polynesian, has commenced practice at Southport, Lancanshire, England.

Dr. DeGrosbois (M.D., McGill College, 1868) is in practice at St. Bruno, Que.

Dr. Clinton J. Morse, (M.D., University of Edinburgh, 1864) who has for many years been in practice at Amherst, Nova Scotia, intends removing to Montreal early in May. We will welcome our old College friend to our rapidly growing city.

BIRTH.

In Montreal, on the 20th March, the wife of John T. Finnie M.D., L.R.C.S.E., of a son.

Original Communications.

Rheumatism being an inaugural dissertation presented to the Medical Faculty of the University of Bishop's College.—By JOHN T. DAVIS, *of Barbadoes, West Indies.*

It is not my intention to enter into a methodical disquisition of this subject; not because I do not appreciate *method* in writing on a medical subject, —quite the contrary. But I presume it will be generally admitted that in no branch of Science is the cry for "more light" more earnestly vociferated as in the Science of Medicine. But let me hasten to remark, that whilst what I may have to say on this subject will be very far from adding "anything new," yet the line of thought I propose to follow will admit of *a few* statements peculiarly my own, as results of observation and reflection; and this too will prevent me from treating the subject in the usual manner, and with wonted detail.

What is *Rheumatism?* One author says it is an affection which "arises from some unknown abnormal condition of the blood." The etymology of the word reminds us of the "humoral pathology"—being derived from a Greek word signifying "a humour floating in the body causing disease." Another author says: "Under the term *rheumatism* are included several diseases which vary in every respect except one, which is their being always painful. The action of the poison is not limited to any texture or organ; although it particularly affects the *white fibrous tissue* which enters into the formation of the aponeurotic sheaths and fasciæ, ligaments and tendons as well as the fibro-serous membranes. Consequently the parts most frequently involved are the joints and surrounding structures with the pericardium and endocardium." From these statements it will be seen that the condition expressed by the term "rheumatism" is not yet well understood; and most authors, so far as I have seen, substantially agree in the above descriptions.

All agree further in regarding it as a constitutional disease; but as to what is the prime cause of the disease we are yet to learn. Acute rheumatism is better described: "It is a disease characterized by fever, profuse acid sweats, and inflammation of the fibrous tissues surrounding one or several of the large joints. It is especially formidable from the suffering it causes, from the intensity of the fever and from the damage which is so frequently produced by it to the heart." But still it will be observed we are yet to learn what the essence of the disease is. Whilst I do not attach overmuch importance to *names* of diseases, and hence very little to the term "rheumatism," yet it does seem to me a matter of some moment to be acquainted if possible with the rationale of those conditions of the system which as a common occurrence often lead to inflammation of such important structures as the membranes of the heart, and not unfrequently of the heart-substance itself. But it might be asked: qui bono? What is the practical benefit to be derived from such knowledge? I hope to shew ere I close that upon it will depend a proper estimate of the treatment which generally obtains notoriety as being about the most rational mode of practice in this affection. Now I question very much the correctness of a part of the description above given of rheumatism, viz. that it is an affection which "arises from some abnormal condition of the blood"—this is doubtless true when looked at *in result*, and as being the immediate pathological cause of rheumatic fever, for instance. But the question arises: What is the nature of that abnormal condition? The answer is, no doubt: it consists in "the presence in the blood of a poisonous material," or "in the presence of a superabundance of lactic acid."

Now another question: Whence the origin of this poisonous material? I believe we shall find the ultimate cause of rheumatism (using this term as comprising the acute and subacute varieties of the disease) to consist in a disturbance of the *nutritive and eliminatory* processes.

Let us now observe the following cases:—

"The patient, John Kennedy, age 14, was a plasterer's boy, in which situation he was much exposed to cold damp atmospheres, and also to standing and kneeling in moist places. His parents are both alive and well; his mother has had rheumatism. He was quite well up to a fortnight ago (excepting an illness that resulted from a blow on forehead 3 years ago.) On the 9th June he had pain in all his joints, which so increased as to interfere with his getting about. He had to leave work and go to bed. The parts were very red. He perspired very much, was very feverish and had many rigors. He kept his bed until his admission to the hospital. He is a patient in good condition, sanguineous."

Another case:—Alfred Trew, age 19, was a waiter at an hotel and had much to do with alternations of heat and cold; now perspiring in the kitchen and then in the parlor in a draught. He is of sober habits, and has not been exposing himself to night

air. About eight weeks ago he had a few rheumatic pains in his shoulder. He had previously good health. On the 14th his legs were very painful and the joints tender. He was very feverish and had slight headache.

These are parts of histories of two cases which are here inserted as being illustrative of the general run of cases that occur in this affection. The majority of patients enjoy previous good health; but on a sudden exposure to cold and wet, sitting in a draught when heated or perspiring, or neglecting to change wet clothes, &c., a *sudden chill* is produced.

There are many other exciting causes no doubt—errors in diet, and scarlatina occasionally. The predisposing causes are still more numerous, *e. g.*, previous attacks increase the predisposition; individuals (males especially) from 15 to 36, especially from 16 to 20 years of age. Climate and season—the disease occurring especially in temperate climates, but these having moist air, and experiencing sudden changes in temperature. To these may be added a state of ill-health and mental depression and anxiety, which are all examples of predisposing causes of this affection.

And let it be noted that the disease frequently occurs in the apparently strong and healthy; in fact it would seem that the greater the strength the greater is the tendency for this exposure to lead to rheumatic fever, instead of pneumonia or pleurisy for instance,—these occurring usually if there have been any predisposition to them.

Now it would seem that this exposure to the action of cold whilst perspiring is in direct relation with the function of elimination and the *calorificient* process.

How is the heat of the body generated and maintained? Most physiologists, not quite so radical as Dr. Draper, who maintained substantially (so far as I can recollect) that the process of heating the body is precisely analogous to the heating of our rooms on a cold winter's day—by putting coals into the grate and allowing free access of the oxygen of the air for the purpose of combustion. I say most physiologists agree that the process, whilst it is eminently chemical in its nature and behaviour, is pre eminently a vital one. And this must needs be so, since, for the purposes of health, all other processes which take place in the human economy, physical, chemical, &c., must be subordinated to the dominance of the vital processes—dependent on the vital energy.

Let this vital energy or nervous force be below par, and we may have a stoppage or reversal of the current of many of the most important transformations that are incessantly taking place in the system.

It is a physiological fact that the starchy element of our food supply the calorifacient materials of the body. Converted into dextrine, then into glucose, it may be chemically found in the blood as the latte after the injection of starchy substances, &c.

The glucose is the *wood* which forms the coal—lactic acid—which is to be burnt (oxidised) in the furnace. This furnace is not the lungs, or the *general* circulation, or the systemic *capillary* circulation when taken singly; but it comprises all three, particularly the last. Let it be understood then that this lactic acid is but a *factor* in the whole calorifacient process. As to where it is first formed, it is not my purpose or duty here to stop to inquire. Suffice it to say it is itself the result of oxidation, and therefore glucose may be said to start the process of oxidation. Lactic acid then appears in the blood, normally, as lactate of soda, having chemically combined with that free alkaline base. It now becomes a neutral vegetable salt. The process of oxidation continuing from the lungs through the general circulation—but particularly in the systemic capillary circulation—this fuel of the system is converted into a carbonate, and water; the carbonic acid being afterwards freed from the base to be excreted via the lungs for the most part—a portion being excreted by the skin. The comparatively small excess of lactic acid that might normally be formed, is excreted through the cutaneous transpirations and urine—having been taken up by the absorbents.

I have said "comparatively small excess," for it should be considered what a large quantity of this acid must be expended in twenty-four hours, in the process of calorification, especially in those whose occupations call for bodily activity. That lactic acid is an ingredient in the sweat of the body may be considered as certain, it having been first discovered there in the year 1807, by the celebrated Berzelius, and subsequently confirmed by other chemists. It must be recollected here, also, that in cases where starchy food is withheld, and saccharine matters taken in small quantities, lactic acid is formed from animal food, glucose being manufactured out of albumen by the agency of the liver.

This oxidation under control of the vital energy necessarily results in a supply of heat to the body. Now this is what I believe to be one of those vital processes which are incessantly taking place in the animal economy. It is essential, of course, for its perfect performance that no *break* should occur in the concatenation of events which make up the entire

process. Now it will be admitted that, according to the view above taken as to the nature of the calorifacient process, the profuse acid sweats and extremely acid urine which are among the prominent phenomena of rheumatic fever are but a certain index of a *break* in this vitally chemical process—other attending phenomena of course telling the same tale. And in no individual is the break so likely to occur as in that young man who exposes himself whilst in a state of perspiration, and with an active circulation, to such a potential agency as a *cold wind* for instance, which thus results in a sudden chill. I do not mean to say that this latter is anything more than the exciting cause; of course there must be likewise the predisposing cause, which I hold to be prominently partial failure, or deficiency in that part of the vital energy which presides over the process of calorification. This latter circumstance by a coincidence of events,—the exposure, the driving back of the perspiration which, as we said, contains lactic acid, the vital action of the cold on the capillary zone,—eventuates in throwing on the system as a bye product, what formed an important factor in such an important process as the production of animal heat. I need not say that this deviation may be the work of a very few minutes, or in bad cases, may extend over a much greater period of time. This circumstance will thus, in a great measure, determine the degree of severity of a case of rheumatism.

It matters not how long this deviation lasts,—the result is the same pathologically: a certain amount of *foreign matter* (for so it is after severance of this vitally chemical connection) is thrown upon the system and thereby into the circulation, for decomposition or elimination, or both. This foreign matter produces a specific inflammation in the tissues—especially the *fibro-serous* variety. But now an important question might be asked: Why are the fibrous structures of joints and serous membranes so prone to be affected by the rheumatic virus?

To this I cannot give a perfectly satisfactory reply, as I can get no light from the authors I have perused on this subject. It seems quite possible, and perhaps probable, that the following explanation is the *true* one:—Kolliker states that "serous membranes possess *no glands*, and upon the whole but few vessels and nerves." This being so, it seems quite possible that these membranes are especially amenable to the action of the poison which, being poured into structures possessing but few absorbents, remains in a great measure as a specific irritant, causing inflammation with its attendant results—chief of which is the *pain*.

It must be remembered that in very severe cases other structures than the fibro-serous are painful. I have seen many patients in the hospital suffering from this disease evince the greatest anxiety the moment the bed was approached. And if perchance a student should unintentionally let the weight of his hand rest on the leg, or even the bedclothes, he would soon be admonished that he was an unwelcome visitor, by the cries, &c., of the unfortunate, and this is especially so where there is little or no diaphoresis. But the profuse acid sweats which are a very usual attendant on this form of inflammation soon tell the tale, that the aid of the general lymphatic absorbents has been called into requisition and are acting their part well. In severe cases, however, where the deviation, or rather *arrest*, is long continued, I need not say the whole system is taxed with the burden of ridding itself of this now foreign associate, the circulation becomes overloaded with it, and is now rather the instrument of irritation than of nutrition. Hence are manifested the following symptoms:—High fever, the temperature ranging from 100 to 104; in bad cases the temperature has been known to be as high as 110 or even higher, and in some cases, as in cholera, to rise after death; restlessness and uneasiness, but inability to move on account of the pain; copious perspirations, the patient being bathed in sweat which has a characteristic *sour* or acrid smell, like sour bread, and usually of a very acid reaction. Sudamina now appear and may be abundant, coming out in crops. The pulse is full and strong: the tongue thickly coated, with much thirst, anorexia and constipation. The urine is remarkably febrile, deposits urates abundantly, and sometimes contains a little albumen.

Generally there is sleeplessness as a result of the pain, but immunity from head symptoms *as a rule* is rather to be remarked in cases of rheumatic fever. Occasionally, however, slight delirium exists. As I said before, *pain* is generally complained of; to this must be added stiffness. But the joints are specially the affected structures. Sometimes these pains may begin like cramps, say in the right hand extending *gradually* to the shoulder. Next may follow the right knee, becoming painful, tender and swollen. The medium-sized joints are the ones usually affected—elbows, knees, wrists and ankles; but pressure on one trochanter might possibly reveal that the hip-joint is not exempt.

The pains may be erratic in character—flying from one joint to another, or may involve several joints together. From these symptoms and many more that might be mentioned, it is clear what severe con-

stitutional disturbances are wrought by this "break" referred to. But worst of all are the heart complications which every physician looks for, as a rule, in these affections. What I have stated with regard to the possible etiology of the inflammation of joint-structures applies equally to the membranes of the heart. I do not deem it compatible with the plan of this effort to enter into the subject of *complications*, other than merely to mention the fact that pericarditis, endocarditis with consequent valvular disease, myocarditis and the formation of fibrinous deposits in the cavities of the heart, pleurisy, pneumonia, or bronchitis, are all liable to occur as complications of this disease. To these may be added peritonitis, which is rare; rarer still are cerebral and spinal meningitis. I may mention here before I forget, that the fact that lactic acid has been injected into the peritoneum and other serous cavities, producing the genuine rheumatic symptoms and pathological sequelae, only corroborates, as it seems to me, the view taken as to the ultimate pathological cause of rheumatic fever. In this case the lactic acid having been introduced stealthily, so to speak, and not in the natural way, it never has been, nor, as I believe, can it ever be a factor in this vitally chemical process of calorification, and hence is an intruder which must be got rid of. Hence too, (I shall have to speak more at length on this score when I come to treatment,) the injustice done to the venerable "vis medicatrix naturæ" to assert that the alkaline treatment is what must be looked to in most cases to effect a cure. That it has its place, and deservedly so, I deny not. But it is only a *chemical* remedy as it regards the specific poison in this affection. But more of this presently. As to the hyperinotic state of the blood in rheumatic fever, it should be noted this does not necessarily mean a superabundance of fibrin in the system. If it were so, an occasional sequela of rheumatic fever, and one which came under my notice at the Montreal General Hospital, would not be likely to occur—I speak of *purpuric extravasation*.

In illustration, the following case might be related: A young man, about 22 years of age, well nourished, &c., was admitted into the hospital in January, 1874, and was found to be suffering from acute rheumatism. Many of the symptoms above mentioned were well-marked in his case. Besides, there was developed about the third day after admission a distinct systolic endocardial murmur, which was soon determined to be *mitral regurgitant* (which persisted for some time after he left the hospital, as I had the opportunity of ascertaining for myself). One morning during his convalescence, he happened to stand for a few minutes beside his bed. In a short time after, the lower part of his left leg presented a well-marked *purpuric extravasation*. The attending physician told us it was the result of his weakened condition. No doubt it was; but that young man, even after he got strong, continued to manifest the *hemorrhagic* tendency—bleeding at his gums was a common occurrence, as he assured me more than once. It is beyond my province here to enter into an investigation of the etiology of purpura. But I may state that his blood was evidently *aplastic*, and hence, although there might have been an hyperinotic condition of his blood, the supposition that this was due to its not being deposited in the tissues on account of the systemic derangement is alike possible. But the more probable view as to it, is this:—From the deranged calorific process as above described taking place, animal heat must be supplied from some source, and hence the proteinaceous compounds, the fibrin-forming elements, are called into requisition to supply it. I think there can be little doubt that the formative process at this time is much diminished if not almost checked; hence the materials that are normally used in this process are by a retrogade metamorphosis called into requisition to supply heat. And the oxidation of these tissues always result in abnormal increased temperature (fever). And hence, perhaps, the hyperpyrexia so common in this disease. It may be noted too, here, that the purpura hemorrhagica, which is sometimes seen during convalescence, &c., is probably due to a weakened state of the capillaries as a result of this interference in the *formative process*, their minute vessels rupturing on the patient's getting into the erect posture for instance, and causing the sub-cutaneous extravasation. The diminution in the number of the red blood corpuscles has also been observed, which may be due to this formative interference. In fact it is in this disease that is to be particularly observed—a process of "back-working"—the reversal of the engines in a measure. The subacute variety of this affection now demands a little consideration.

This is often a very troublesome complaint There is very little pyrexia; but in some instance the acid sweats of the acute variety are present, though to a much less extent; one or more joints become affected for a long time, the conditions being almost stationary. Exacerbations are not uncommon, and they are liable to occur from slight causes or without any evident cause at all; but I would here state it as being very probable, as it seems to me, that the predisposing cause above mentioned in

connection with the acute variety is present here, though in a less degree. A case illustrative of this variety, which came under my notice a short while ago, I will now relate: The patient, enjoying previously tolerably good health, was rather startled at finding himself suddenly attacked with moderately severe pains in the left wrist and right shoulder. Mere limited motion of these joints resulted in severe pain; the wrist was very tender and swollen. Coincident with this was the occurrence of profuse perspiration of a rather yeasty smell, which I tested and found very acid. Urates were abundant in the urine, which was very scanty, and high coloured, There was considerable stomachic acidity and heartburn; a sensation of burning in the mouth and lips; saliva very acid; heart's action much excited and weak but no murmur; pulse quick, full and easily compressible; temperature varied from 100 to 101; most of the time it was normal. The condition lasted for some time, presenting well marked remissions and exacerbations, and was not easily amenable to treatment. One feature of the case worthy of remark was that alcoholic stimulants invariably increased pain and tenderness in the affected joints. It was found too that the administration of potassæ bicarbonas invariably resulted, after a time, in an aggravation of most of the symptoms. The following mixture was found of great benefit:—℞ acid nitrohydrochlorici diluti ʒ iij.. tinct. cinchonæ co. ʒ ij., aquæ ad ℥ vj. M. ℥ ss. t.i.d. The acid was given as an oxidising agent. The subsequent use of twenty minim doses of tinct. ferri mur proved of great service. There can be no doubt that ferrum is exceedingly useful in this variety, as also in the acute. There was little need of local treatment, which, when adopted, consisted of the application of a small piece of flannel. But the results obtained by the use of nux. vomica in this case have led me to determine to try it singly in similar cases, after abatement of any vascular erethism present, and where there is deficiency of nerve power—as is very likely to be in subacute cases. In this variety the joints are not much deformed, nor are they structurally altered to any great extent.

The general condition is usually much below par, and although the nutritive and eliminatory processes are not so much disturbed, although the retrograde tendency is not so well marked as in the acute variety, yet this form is commonly very troublesome, and the treatment must be preeminently supporting. Quinine and iron, I believe to be very efficacious; and here I would note the peculiar action of the tinct. ferri perchloridi in cases where the urine is scanty and the urates are abundant:—It acts as a diuretic in consequence of the presence of a peculiar ether formed with the spirit by an excess of hydrochloric acid used in the preparation of the tincture (Headland). The urine by the use of this preparation soon becomes clear, &c.—this I have myself observed. But it is remarkable what beneficial results are to be obtained by abstinence from all active medication.

I shall now conclude this subject with a few remarks on the treatment of rheumatic fever and heart complications. And as I do not intend, in accordance with the plan of this effort, to enter into a review of all the various modes of treatment generally given in books, but merely to make general observations in conformity with the views here advocated as to the pathology and etiology of the affection, a very few more remarks will close this subject:—That now generally advocated is the alkaline treatment. It consists, as advised by Dr. Garrod, Dr. Fuller and others, in the administration of from ʒss. xx–lx. gr. doses of the bicarbonate of soda or potash. Dr. Garrod recommends the beginning at once with gr. xl. doses and continuing until the system is brought entirely under the influence of the alkali. In addition to this, pain is to be relieved by the administration of opium and belladonna. The alkali may be administered in the form of an effervescing draught which renders it more pleasant. Now, I would here state that I deny the *curative power*, as such, of alkalies in this disease. I would be distinctly understood that I do not deny that they are preeminently indicated here; what I do question is the credit which is given them as being *the* dynamic agents in the cure of the condition known as inflammatory rheumatism. I maintain that scarcely is there another disease in which *nature* is to be more relied on to readjust her deranged processes than in this affection. Hence (although I think the principle of non-interference in this disease to be reprehensible) some physicians have been lately advocating the leaving the disease pretty much to itself. I maintain that the unquestionable value of the alkaline treatment is to be sought on *chemical* ground principally. That the system in this disease needs the *chemical action* of the drug, must surely be admitted, although cures have been repeatedly effected without it. But I do not think it can be proved that every chemical remedy is necessarily a *curative* one. Nay, I further believe that the incautious use of these drugs in this affection frequently entails on the patient an after-life of

suffering and sorrow. And in this disease it is particularly the object of the physician to prevent if possible the occurrence of heart complications; and if these exist when first he sees the case, to as speedily relieve them as possible, if they can be at all. Now an alkali given will most assuredly, amounting to an almost mathematical certainty, render the blood and some of the secretions alkaline, which is just the thing to be desired. But let us suppose this is carried too far, as is very apt to be in those cases in which the acid poison is being rapidly produced in the system, and which therefore implies alarming nutritive and eliminative disturbances, what is the result? I believe that in a large number of cases the patient's system has been so lowered by this excessive medication as to lead to permanent disturbance of the nutritive functions. Hence these patients are afterwards liable to severe hemorrhages of some kind or other. Dr. Headland states that "alkalies dissolve organic compounds of the albuminous group and prevent the coagulation of fibrin. In excess they retard nutrition and cause spareness of the system." But again, unless these ponderous doses are given, the action of the heart and the general inflammatory condition will not be brought under sufficient control, which is greatly to be desired in this disease. For the more rapid the circulation, the greater the vascular erethism, the more likely is the *poison* to be freely distributed in those tissues which it is particularly desired should escape implication, viz., the serous membranes of the heart, and thus these serious complications might entail very great after-suffering, or speedy dissolution. This is very like being on the "horns of a dilemma." It is well known that this vascular erethism is the result of the effort of nature to *right* herself. But it is equally well known that nature sometimes overacts her part; and then it is the duty of the physician to bring in art to aid her by moderating this erethism and leaving her alone pretty much to effect the cure which *she alone* can. I think that this can best be done by the judicious administration of the following remedies:—Aconite, digitalis, or veratrum viride; given, not in the ponderous doses generally used, but in very minute doses, as, e. g. tr. aconiti (Fleming) gttss j. e. q. h., just sufficient to control the vascular erethism but not to the extent of depression. White bryony used in conjunction with this has obtained much repute with some physicians. The cautious use of the alkalies, I think unobjectionable, although, as I have said, cases get well without them. Scarcely in any other disease are there so many "lines of treatment" as in this.

And almost every physician can report remarkable cures from *this* plan and *that* plan. This is, no doubt due to the fact, as I have already stated, that the essence of the disease consists in certain deranged processes which nature alone can rectify.

I need not state that bleeding and means adopted to secure extreme diaphoresis recommended by some; the calomel and opium to the extent of ptyalism are all to be strongly condemned. For, as one author observes with respect to the former:—"The relief is but slight and transient, but the evil is decided. The tendency of the disease is to impoverish the blood of red globules, increasing the tendency to chronic rheumatism, prolonging convalescence, increasing the danger of internal inflammations; of internal effusions into the pericardium and pleura and to the synovical sacs of the joints, troublesome cases of delirium which do not occur under other treatment; it also predisposes to carditis and endocarditis; and these affections, arising in a case in which bleeding has been practised, are much less manageable than in others who have not been bled." Again, the same author observes with regard to the person pronounced cured by calomel to salivation; he has "loose teeth, ulcerated gums and all the painful and offensive accompaniments of ptyalism; as bad or worse than the original disease. And then it does not in the least guard the patient against the accidents of internal inflammations, pericarditis, endocarditis, pneumonia, pleuritis and peritonitis." Lime juice has been much vaunted as a remedy in this disease, no doubt as an oxygen carrier to the specific materies morbi, to facilitate their oxidation. On the same principle the acidum nitrohydrochlor. dil. has been recommended. The nitrate of potash, iodide of potassium, phosphate of ammonia, benzoates, sulphur and guaiacum, &c., I will only just mention as remedies which have been used.

The nitrate of potash as used by Dr. Basham, gives it is said excellent results. Quinine and tincture of steel have also been used. The latter, I think especially useful. Dr. Awenarius, of St. Petersburg, speaks very highly of *Propylamine* or tritylia, a volatile oil which is one of the products resulting from the destructive distillation of bones and other animal matters, usually from herring-brine. The doctor says he used this remedy in 250 cases of rheumatism, and in every case the pain and fever disappeared the day after its administration. The dose was twenty drops every two hours. Time will not permit me to mention other internal remedies recommended, except *opium* which has been lately much vaunted. While it certainly

controls the pain and restlessness, procures sleep and sustains the nervous system, yet its property of increasing the cutaneous transpiration would seem to be an objection to its use. For it has been found by Dr. Inman of the Liverpool Northern Hospital, that "the worst rheumatic cases are those in which perspiration is most profuse;" and that great improvement follows diminution of perspiration which is not an eliminative effort of nature to be encouraged. In these cases he has only seen lime juice fail in one case. In cases where the disturbance is not great and the heart not implicated, I have seen the alkaline treatment followed by subsidence of nearly all the symptoms in twenty-four hours. This has occurred at the Montreal General Hospital. But it is in the severer cases that this remedy, when given its true value, will be found not to be so curative after all.

The local treatment:—"The use of large blisters applied completely round the limbs and close to the affected joints has been strongly advocated by Dr. Herbert Davies. This is to be followed by the employment of large linseed poultices to promote the discharge of serum. No medicines are to be given. If the evidence of patients is of any value this practice must be considered as a very successful one." (Tanner.) I would call particular attention to this quotation as it would seem to corroborate the view here held as to the grand agent in the cure of this affection, *nature herself*; and that "nimia diligentia" may have its place here, as it regards medication, as in obstetrics or surgery. The above local mode of treatment has been much praised, and it seems that by its use pain is speedily relieved and the duration of the attack is greatly shortened. Merely wrapping the affected joints in cotton batting and covering this with oiled silk I have seen attended with relief of pain and discomfort. In a case of my own a piece of spongiopiline smeared with linimentum belladonnæ and applied to the knee-joint gave speedy relief. Hot alkaline applications and iodine for swollen joints are excellent remedial agents. Fomentations of poppy heads hold their place here. But on the whole it is desirable that cotton wool alone should comprise the local application, and very little more will be required as a rule. I need not add that studious avoidance of exposure is necessary, and suppressed perspiration of the articulations is prejudicial to a local cure. The diet should consist generally of slops at first; but when there are signs of depression the whole regimen should be eminently *restorative*.

Saccharine, amylaceous and oleaginous diet is to be interdicted.

A Case of Traumatic Tetanus, treated with Potassium Bromide and Chloral Hydrate. Recovery. By E. H. TRENHOLME, M.D., B.C.L., Professor of Midwifery and Diseases of Women and Children, University of Bishop's College.

Read before the Medico-Chirurgical Society of Montreal.

The nature of tetanus and its cause are so little known that we can hardly wonder at the unsatisfactory and opposite modes of treatment that have been adopted by different persons for its cure.

Remedies much relied upon, and strongly recommended by able men, have been found unavailing in the hands of others.

The discovery of new remedies have raised hopes that have been rudely dashed to earth by the crucial test of experiment.

The so-called anti-phlogistic treatment, so highly esteemed and trusted, in former times, is now superceded by the more rational sedative treatment, although it must be owned that some of these remedies have not realized what might have been expected of them from their known physiological action, e. g. opium and nicotina.

Chloroform, or rather chloral hydrate, is now enjoying some reputation and coming into more general favor.

Antispasmodics of all kinds have been tested with unsatisfactory results.

The calabar bean, possessing the power to paralyze the voluntary muscles, gave promise of great success, that has been followed by great disappointment.

Woorari acts on the motory nerves and paralyzes them sooner than the sensory nerves; just the desired remedy; but, alas! it, like the others, have failed to save life, although Dr. Dunne reports the cure of a case while using it. The chief value of this remedy lies in its power to prevent spasms, which allows the disease to run its course before life is destroyed.

PATHOLOGY.

The p. m. appearances in both, muscles and nerves vary much, according to the severity and duration of the disease.

The body is found to be usually rigid, the muscles firm and contracted, and occasionally ruptured, but in some cases no rigidity at all.

In a case under my care some years ago, there was general rigidity, and the nerve from the site of injury

(the first phalangal articulation of the great toe), was inflamed along its whole course up to the cord, and thence to the base of the brain. There was also intense meningitis and serous and bloody effusion into the membranes of the cord; also well marked congestion of the vessels at the base of the brain.

The cord was very vascular, especially in the region of the cervical vertebræ.

Dr. Dick n (51 vol. *Med. Trans.*, p. 265) gives the p. m. appearances in a case where death supervened in 18½ hours. The cord presented three enlargements, one in the cervical and two in the lumbar region. The morbid changes were: first, a general injection of the cord, with dilatation of the blood vessels in the grey matter more than in the white, and in the left posterior horn more than in the rest of the grey matter. Second, a structureless transparent exhudation had been poured out around the blood-vessels in many situations, and had been the chief cause of the extended swellings by the displacement it had occasioned. Third, There were certain circumscribed changes in the white columns."

The cause of this disease is very obscure.

"Some attribute it to a peculiar kind of irritation, which acts on the excito-motory apparatus, that the irritation may be eccentric, at the extremity of, or in the courae of the afferent spinal nerve; or it may be centric within the spinal canal itself." "Some think it to be an exaltation of the polarity of the cord and medulla." "Others that it is identical with inflammation of the spinal cord and medulla oblongata, and adduce cases of inflammation of these structures as causing symptoms of tetanus."

"It has been suggested that it is due to a morbid state of the blood, inasmuch as it resembles in some respects those diseases which are produced by poisonous agents, as strychnia, hydrophobia, woora i, &c."

Dr. B. Richardson classes it with zymotic diseases and states "that, in his opinion, the poison is first developed in wound as result of decomposition, thence is carried into the circulation. The new substance, without any necessary increase of its own parts, excites a zymosis, ending in the production of an alkaloid, or alkaline body, which has all the power of exciting the symptoms of spasm as much as strychnia itself."

The subject of these remarks, John D—, aged 19, of medium stature and spare habit, received a small glass wound on 15th October, 1874, over the metacorpo-phalangal articulation, which healed up in the course of a few days. On the 29th October, the patient called upon me complaining of difficulty in swallowing. Examination of the throat shewed very slight congestion of the pharynx, and as he had frequently been treated for the same thing, I brushed out the fauces with tr. capsici and gave him a chlorate of potash and glycerine gargle.

On 30th October I recived a message to visit him, and, as he was at dinner when I called, and felt no trouble in the throat except when swallowing, and was at that time somewhat easier, I gave no serious thought to the case, but ordered the gargle to be discontinued and hot fomentations to the throat externally; glands of fauces enlarged.

October 30th, marked trismus and difficulty in deglutition and respiration.

31st, 10 a.m.—The spasms are frequent. Examined the site of injury on thumb, and, on pressure a drop of pus escaped from wound. As it was swollen, red and tender, applied muriatic acid and had it poulticed continually. Prescribed 20 grs. pot. brom and 15 grs. chloral every three hours; also gave half drop doses aconite every hour. 5 p.m. Dr. Kennedy saw the case in consultation with me. Was easier, but there is well marked opisthotonos. Any attempt to move patient brings on a spasm. The spasm of diaphragm at times threatens to destroy life by apnœa; urine somewhat scanty.

1st Nov.—Had a bad night but feels easy this a.m.; spasms chiefly confined to diaphragm.

2nd Nov., a.m.—Passed easier night, and can open jaws wider than could yesterday; can swallow milk; muscles of legs very tense. P.M.—Is slightly delirious; spasms very severe, and more painful in back of neck than elsewhere, although the diaphragm is still much affected. Increased the dose of the bromid and chloral to 25 and 20 grs. respectively. Can open mouth to the extent of about a quarter of an inch.

Nov. 3rd., a.m.—Skin hot and dry; takes food pretty well; spasms less severe than yesterday; slept for two hours on right side.

Nov. 4th.—Passed a good night; pains felt severely along lower part of spine, but of short duration. There is a fœtid discharge from wound. A spicula of glass was removed with one of the poultices. Applied muriatic acid, and followed it with tobacco leaf on hot poultices. P.M.—The spasms last two or three seconds only, and are not very severe.

Nov. 5th.—Bowels painful, and as they had not been moved since the 31st ult., gave ol. ricini. Countenance less anxious and feels easier.

Nov. 6th.—Spasms very severe and prolonged. Applied mustard sinapisms followed by Empl-Belladon to cervical spine and between shoulder blades.

Nov. 7th.—Bowels freely moved, after which was much easier; spasms slight.

Nov. 8th.—Spasms severe in back; countenance anæmic color.

Nov. 9th.—Spasms easier, and had a good night.

Nov. 10th.—Passed best night he has had since he took ill; skin cool; spasms slight, and felt in left leg only; slept well.

Nov. 11th.—Had a restless night; pains in back very severe: spasms frequent; changed the chloral for lupulin as blood was getting poor.

Nov. 12th.—Not so well as yesterday; great tension of tensor vaginæ femoris muscle; returned to the chloral once more.

Nov. 13th.—Passed a fair night; slept pretty well; feels easy this a.m.; spasms short.

Nov. 14th and 15th.—Spasms not so frequent and slight.

Nov. 16th.—All going on well; eats heartily.

Nov. 17th.—Spasms returned, and are very severely felt in right shoulder.

Nov. 18th.—Had spasms in the heart which threatened instant death. The agony was intense; in other respects doing well.

Nov. 19th.—Passed easy night; had but two severe spasms and one general tonic spasm. Omit the mixture and take of morph. mur. gr. $\frac{1}{2}$ every 6 hours.

Nov. 20th.—Doing well; pupils contracted. Returned to the mixture for the day, and to take morph. at night only.

Nov. 21st.—Pain confined to right shoulder. Sat up on edge of bed for a few moments. Eats well.

Nov. 22.—Doing well. Lies on side with ease. Eats well.

Nov. 23rd.—Not so well; restless night; breath short. Is low spirited.

Nov. 24.—Respiration easy; can turn on side alone, and touch forehead with his left hand.

Nov. 25th.—Spasms slight and far between; shoulder still stiff and tender.

Nov. 27th.—Muscles relaxing; spasms slight, and two or three hours between each one. Can open mouth well.

Nov. 28th.—Had no severe spasm since yesterday.

Nov. 30th.—Increased muscular relaxation and entire cessation of spasms.

From this time forward continued to improve and has quite recovered health and strength and been able to resume his occupation as mechanical engineer.

REMARKS.

During the severity of the disease mustard sinapisms to the spine always gave immediate relief. The bella-donna plaster was then applied on the reddened surface and acted well.

Attention to the local wound was also followed by relief of the pains which were felt to extend from the wound up the arm.

One remarkable feature of this case was the attacks upon special muscles seriatim, especially the heart.

Dr. Kennedy did not consider that there was any necessity of supposing that tetanus was due to the formation of a new poison in the wound or blood. If the position of these wounds was taken into consideration, it would be seen that in the majority of cases they were situated in portions of the body supplied largely with sensitive nervous filaments, as in the hand or foot. Any continued irritation of these excito-motor nerves would tend to produce reflex motions, which if lasting for any time would generate alteration of structure in the spinal centre and thus become continuous.

In the case before us it is stated that a piece of glass was removed from the part after the wound had healed. Besides, the time which intervened between the reception of the wound and the accession of tetanus would preclude any formation of a new poison. There was another point to be noticed, and that was the absence of any induration or inflammation in the surrounding lymphatic glands and ducts, which would have been the case had any septic material been absorbed. Taking the different cases mentioned we find no regularity in the appearance of tetanus; it may appear early or late, and where there was no external injury.

The well-known fact that irritation of a sensitive or excito-motor nerve is capable of producing reflex muscular action should be sufficient to account for these spasms, and in tetanus either the foreign substance has remained in the wound or else the nerve has been implicated in the cicatrix, and thus keeping up irritation.

At present he had under his care a lady, who for years had suffered from time to time with what may be designated as hysterical tetanus, but which presented as violent symptoms as it was possible to have in any case of traumatic tetanus, though not so long continued. In this case the cause was evidently uterine. She had suffered greatly from dysmenorrhœa, which condition had been relieved by free incision of the os uteri, but which did not relieve th spasms. These latter were something extraordinary, the opisthotonos was extreme, and even the occipital portion of the occipito-frontalis bulged out in a

state of extreme rigidity. Chloral had been given in large doses, but did not seem to have exercised much curative action, but had controled the spasm. Benefit had been derived from the administration of bromide of ammonium, thirty grains every three hours. The characteristic eruption was a long time in appearing, but no ill effects were observed from its long continued use in large doses.

Dr. Proudfoot mentioned that he had seen a number of cases of tetanus in hospitals in this country, and during the late Franco-Prussian war, only three of which he knew to have recovered. They occurred while he was House Surgeon of the City Hospital, Boston. The treatment in these cases was bromide of potassium in large doses combined with the free administration of whiskey, beef tea and milk punch; with an occasional dose of morphine (hypodermically) to relieve pain. The bromide was given in doses of from 40 to 60 grs. an hour until the characteristic eruption was produced; after which the paroxysms became less frequent and of shorter duration, finally ceasing altogether, the patients making good recoveries. The 1st case occurred in a carpenter æt. 18, who got a nail in the ball of the great toe of the right foot; 14 days after the injury the wound being quite healed and not sensitive to the touch.

The 2nd case was that of a man æt. about 45, with a bad comminuted fracture of the thigh.

The 3rd case a boy æt. 13, who got a heavy blow over the spine from a base ball club. The cases recovered perfectly.

While in Darmstadt during the war he saw a few cases with Dr. Keller, Surgeon in charge of one of the large Hospitals for wounded soldiers, and recommended the "bromide treatment"; which the Dr. at once began on all the cases under his care. Up to this time there had not been a single recovery from tetanus in the Darmstadt Hospital.

Dr. Proudfoot regretted that he was unable to state to the Society the result of Dr. Keller's cases, as he was obliged to leave for Frankfort-on-the-Maine the following morning, and did not return to the city.

Dr. Webb stated that he had treated a case last summer, (a half starved pauper boy from seven to eight years of age.) with calabar bean hypodermically. As he was called only three hours before his death, had no opportunity of fairly testing the remedy, but noticed that the spasms entirely disappeared in less than half an hour from the time of its first administration, although previous to that time they had been present almost continually for three days. He died within ten minutes of the second injection (just seven days from time of accident;) it apparently made him die easier. The disease was induced by accidentally stepping on a rusty nail, the point entering the inner side of the ball of the right great toe.

In reply to Dr. Kennedy Dr. Trenholme remarked that his own views with regard to the pathology were more in accord with those of Dr. Richardson than any other writer upon the subject. As to whether an alkaloid substance was formed or not, he was of strong conviction from what he had seen that it was due to a septic agent formed at the site of injury and absorbed into the blood, and that this septic agent has a special affinity for the spinal nervous system: In support of this view he remarked that in a former case he found a spicula of wood imbedded in the tissue over the metataro-phangal articulation of the great toe, surrounded by a small amount of pus. This was the source of the trouble, and the nerve congestion could be traced up to the spinal column and base of brain. The most marked pathological changes were found in the cervical region. In the present case a drop of pus was found under apparently perfectly healed tissue, and when this was removed the irritation extending from the wound up the arm was greatly relieved and finally entirely closed.

So far from the interval that supervened between the reception of the wound and the supervention of the disease precluding the idea of the formation of a new poisonous agent, it strengthened such conviction in his own mind. The condition of the wound in both of his cases was proof of such possibility and probability also.

It did not militate against the theory of absorption because the lymphatics were not observed to be enlarged, &c. That they were not affected is assumed and not proven, and even if not affected septic agents find ready access to the blood by other means than the lymphatics, as for example by the lungs. In the case of traumatic tetanus the poison could be taken up by the veins by imbibition, or might act on the blood in the capillaries so as to cause an altered condition of that fluid.

With regard to Dr. Proudfoot's remarks Dr. Trenholme thought the use of large doses of bromide of potassium while most valuable was not so effectual in allaying the spasms as when combined with chloral. In support of this view he remarked that when the chloral was omitted from the mixture, the spasms returned with increased violence, and were assuaged promptly when given again.

Dr. Trenholme attached much importance to the

use of mustard sinapisms to the spine followed by the emplastrum belladonna.

Correspondence:

TORONTO, March 25th, 1875.

Editor Canada Medical Record.

DEAR SIR,—As a member of the Canadian Medical Mutual Benefit Association, and feeling an interest in its welfare, I wish to draw the attention of the members of the profession who are still with out its pale to the fact, that it is a real live institution, and that its members are sparing no pains to ensure its success.

It is destined to supply a much felt need, and ought to be the means of drawing the profession together in one strong bond of unity; and we should feel a common interest in supporting and building up an institution which, in its way, is likely to be productive of so much benefit.

As one applicant expresses himself: "He does not think it has come into existence one moment too soon, as especially in the outlying sections of the country the medical men cannot hope to provide a competency for those depending upon them in case they were suddenly taken away; and the organization presents an opportunity that should render the profession in general grateful to its originators."

Nor need we go to the newly settled districts to find members of the profession who need the benefits the Association affords, as is evidenced by the fact that an appeal is about being made to all the registered practitioners in Ontario to raise a fund to relieve the straitened circumstances of the family of the late Dr. Lizars, of Toronto.

On the ground that the late Dr. was a registered practitioner, this action cannot be called in question, and ought to receive our hearty encouragement and liberal support.

But, on the other hand, it should not be forgotten that this is establishing a precedent, which, for the same reason, should have been established long ago, and must, therefore, follow every such lamentable occurrence in the future, as the death of a regularly qualified medical practitioner.

But we would scarcely like to place ourselves in such relation to each other, or in such a position in the world, as a course of this kind would necessarily and inevitably involve.

We could, however, by building up and keeping well managed and supported such an association, have an amount which would be very acceptable to the representatives of a deceased member, and which we could claim as a right, and just due, and not have to feel towards our brethren that it was doled out to us as a charitable pittance; and to the outside world that such is the result of the efforts of a lifetime spent in unremitted and unrequited toil.

The Association furnishes every qualified practitioner with a blank form of application, and while we are pleased with the readiness with which a good number promptly filled up and returned them, still there are many others from whom we have yet to hear, and probably in most cases from indifference.

To such we would that you give the matter your earnest attention, and forward your application.

Yours truly,

MEMBER.

Progress of Medical Science.

PRACTICAL INDICATIONS TO BE DRAWN FROM THE STATE OF THE PUPIL DURING SURGICAL ANÆSTHESIA.

M. P. BUDIN, in an article in *Le Progrès Médicale* (Sept. 5, 1874), says that he has endeavoured to discover some sign which might serve as a guide in the administration of chloroform, and which would indicate the state of sensibility during its administration. Observation and experience have led him to the following conclusions:—

1st. There exists in surgical anæsthesia produced by chloroform a constant relation between the state of the pupil and the period of anæsthesia.

2nd. During the period of excitement the pupil is *dilated.*

3rd. This period having passed, the pupil contracts; this atresia is well marked, and continues for several minutes, accompanied with complete general anæsthesia.

4th. The *dilatation* of the pupil coming on during an operation indicates in general, either that the anæsthesia is less profound, or that the return of sensibility is approaching.

5th. The state of the pupil, then, may serve as a guide in the administration of chloroform.

6th. During operations which last a long time, if it be wished that the patient should be insensible and motionless, the anæsthesia should be so managed that the pupils continue constantly contracted.

7th. Finally *vomiting* may produce dilatation of the pupils, cause the insensibility to disappear and the patient to awake; it annuls, in part, the effects of the anæsthesia.

HOT WATER VAGINAL INJECTIONS IN UTERINE DISEASES.

Dr. Emmet, surgeon to the Woman's Hospital of the State of New York, in the course of a paper on "The Philosophy of Uterine Disease" (*New York Medical Journal*, July), makes the following remarks on the value of hot-water vaginal injections: — In this simple remedy, he says, we possess the most valuable means of relief when properly administered. Although it has now been many years since this remedy was first introduced into practice, but a small portion of the profession appreciate its use or understand its action. It is generally conceived that the application of heat by this method relaxes the vessels and increases the congestion. This it does at first, but if prolonged, the capillaries are excited to increased action; as they contract, the tonic stimulus extends to the coats of the larger vessels, their calibre becomes lessened, and, with an approach to healthy action, the congestion diminishes. No one applies a hot poultice with the view of increasing the congestion of the parts, but, as any old woman would explain it," to draw the inflammation out," that is, to lessen the congestion by causing contraction of the vessels. That such is the effect of the continued use of a poultice is shown by the bleached and wrinkled appearance of the tissues after its removal. We can cause capillary contraction also by the use of cold, and the effect is even more prompt, but, when reaction comes on the tissues will become more congested than before. In brief, the immediate effect of cold is contraction, and with reaction we always have dilatation; heat, on the contrary, causes dilatation at first, and its action is followed by contraction afterward. If a woman be placed on her back, with the hips elevated by a properly-shaped -pan under her, and a gallon or more of hot water at 98o or of a higher temperature be slowly injected into the vagina by means of a Davidson's syringe, the mucous membrane will become blanched in appearance, and the canal as diminished in size as if a strong astringent had been administered. While the hips are elevated, the vagina will retain, during the injection, a large quantity of water, which by its weight will distend every portion of the canal, so that it will come in direct contact with the whole mucous membrane under which the capillaries lie. The vessels of the neck and body of the uterus pass along the sulcus on each side of the vagina, and their branches encircle the canal in a most complex net work. The vessels of the fundus, through the veins of which the blood passes by the liver back into the general circulation, communicate with those below by anastomosis. We can thus, through the vagina, influence directly or indirectly the whole pelvic circulation. We can so diminish the supply as not only to check congestion, but we can liberally, by the use of hot water, starve out an inflammation. I know from my own personal observation that several of these injections a day, at 100° to 106°, will abort an attack of cellulitis if resorted to early enough, and their use persevered in with the aid of rest and anodynes. These injections exercise a most beneficial effect on the reflex system by allaying the local irritation. I know of no better means for removing the nervousness and sleeplessness of an hysterical woman than a prolonged hot water vaginal injection, when administered by an experienced hand. These injections will frequently soothe a patient to sleep in less time than could be done by any anodyne in the pharmacopœia. To receive permanent benefit from their use, they must be continued until the patient is restored to health. They should be given at least once a day, and the best time is on retiring at night. The only position in which the patient can receive any benefit from them is on the back, with the hips elevated, as I have described. She cannot administer them properly to herself, and I know of no arrangement, by syphon or other means, which can take the place of an intelligent nurse. As the patient improves in health the quantity of water can be diminished, and the temperature lowered until the injections are discontinued from daily use, but for some time they should be employed for a few days after each period.

CYSTITIS IN WOMEN.

Dr. J. B. Hicks (*British Medical Journal*, July 11, 1874), in a valuable paper on the local treatment of cystitis in women, considers that but little dependence is to be placed on the efficiency of internal remedies, unless indeed an exception be made in favor of these medicines which are able directly to alter the acidity or alkalinity of the urine, as the case may be. Opium he considers as the most valuable remedy, not only because it relieves the pain which is so serious a symptom of the disease, but also because it has a decided effect in lessening reflex sensitiveness.

In all cases of severe acute cystitis, characterized by pain, by a frequent or constant desire to micturate, by severe scalding along the urethra during micturition, by a constant and intolerable bearing down, and by a urine loaded with mucus, pus, and blood, the first thing to be done is to ascertain the reaction of the urine. As a rule it will be found to be alkaline, although before pus appears in the urine it may be acid. If it is acid and ammoniacal, pass gently a gum-elastic catheter (open at its end instead of its side) into the bladder; draw off the urine; withdraw the catheter just without the neck, when the bladder is on the point of being emptied; then, by means of a syringe, wash out the bladder with warm water slightly acidulated with nitric, hydrochloric, or acetic acid (two drops of the acid to an ounce of warm water); inject until the patient expresses a desire to micturate, when the injection may be allowed to escape. This injection is to be repeated until the urine seems clear of phosphates and mucus; usually

about half a pint of acidulated water will be found sufficient. Having thus washed the bladder clean, inject about a grain of morphia dissolved in an ounce of water. Withdraw the catheter, instructing the patient to retain the injection as long as possible. In all cases, allow the catheter to rest just without the neck of the bladder, using force enough to carry the injection through the sphincter into the bladder. This treatment should be repeated twice daily. In cases where the urine is not markedly alkaline, the bladder may be washed out with a warm solution of permanganate of potash, instead of the acidulated water. After a few days of this treatment, a solution of chlorate of potassa (four grains to the ounce) may be used in place of the permanganate of potash, and afterwards the morphia solution. Where there is no blood in the urine, nor any constitutinal effects experienced from the morphia, two grains may be used instead of one.

As the acute symptoms subside, more astringent washes may be used, such as tannin (three grains to the ounce), or three or four drops of solution of perchloride of iron, the morphia injection being used subsequently. In cases where the urethra becomes very tender, it is well to omit the catheterization for a day or two. If after the main symptoms subside the urethra still remains tender, a bougie, smeared with tannin and dipped in gum-water before using, may be introduced with decided benefit.

In cases where the cystitis has become chronic it is well to use a solution of nitrate of silver (from five to ten grains to the ounce) or perchloride of iron (ten minims to the ounce) before injecting the morphia. This application is to be repeated a week later.

In the acute stages the warm hip-bath and sponging of the genitals, with perfect rest in bed, are to be insisted on, and no alcoholic beverage whatever is to be allowed.

Dr. J. Goodman believes that by far the best treatment of this class of cases is the insertion of a drainage-tube, thus preventing the retention of any urine in the bladder. The tube must be removed every three or four days for the purpose of cleaning it, which is best accomplished by placing it in acidulated water.—*Boston Medical Journal.*

TREATMENT OF ERYSIPELAS.

Dr. Satterlee, in the *N. Y. Med. Jour.*, advises the quinine and opium treatment. "It consists in the administration of one, two, or three full doses of the sulphate of quinine combined with enough tincture or elixir of opium to moderate the disagreeable effects of the quinine upon the head, and to assist sleep. If called at the beginning of an attack of erysipelas, I administer to an adult, twenty-five to thirty grains of the sulphate of quinine, dissolved in one and a half ounces of water, which is readily accomplished by the addition of a little dilute sulphuric acid; a few drops will completely dissolve the powder, and a clear solution will be formed; to this I add fifteen minims of McMunn's elixir of opium, and we have a draught which, although very bitter to the taste, is not so disagreeable to take as a small powder of quinine; in fact I have on one occasion administered sixty grains of quinine dissolved in three ounces of water, in one dose, to a patient with a very obstinate and long standing intermittent fever, and the remark he made to me some time afterward was that 'he was so glad that I had given him that draught *instead of quinine*, as he had taken a great many quinine-powders for over two years, and they were unpleasant to take, without doing him much good.' Having ordered a draught as just stated, containing twenty-five to thirty grains of the sulphate of quinine, direct the erysipelas patient to take it all at once on retiring for the night. It will usually be retained by the stomach without difficulty; if, however, the stomach is irritable, I prescribe mustard-plaster about the size of the hand, to be applied, ten or fifteen minutes before taking the dose, under the left breast; this procedure I have found unfailing in quieting the stomach so that the draught is retained. In one case when the fauces were greatly inflamed and deglutition very painful, I had an equally good effect by administering the dose by the rectum. After this draught the patient usually has a very good night, sleeping well and perspiring freely; and on examination after twenty-four hours, we find the temperature and pulse have fallen greatly. The general symptoms have either disappeared or been much improved. In some cases we have deafness and noise in the head from the quinine, but in the majority of instances the opium seems to remove entirely the after effects of the drug. The eruption markedly diminishes, and I have seen many cases where a single draught has completely aborted the disease. In all cases I direct the patient to observe simple hygienic rules, use a stimulating diet, with free draughts of lemonade where there is biliousness, a simple cathartic in constipation, and no external application whatever.

This is my treatment in the incipiency of a mild attack of erysipelas. But in any and all the varieties and severer forms of the disease, or when I do not see the case until it has advanced several days, I commence treatment in the same manner, but, at the end of twenty-four hours, or on the second evening of my attendance I administer a second quinine draught, and if necessary a third at the end of forty-eight hours. In my experience this has been entirely successful in the most severe types of the disease, the eruption and general symptoms passing away with rapidity. The patient makes an excellent recovery under this mode of treatment, the appetite comes speedily, and there is very little debility experienced. Twenty-four or at most forty-eight hours is all that is required to abort the disease by this treatment. Having used it for three years in a large number of cases, I have never found any disagreeable after effects; on the contrary the general health of the patient is improved, and this is the experience of all those whom I have known, who have employed this plan.

TWO NEW DIFFERENTIAL SIGNS IN DISLOCATION OF THE SHOULDER.

BEING A PORTION OF A CLINICAL LECTURE DELIVERED AT BELLEVUE HOSPITAL, AFTER THE PRESENTATION OF A CASE OF SUBCORACOID DISLOCATION.

By Prof. FRANK H. HAMILTON, M.D.

The examples of errors of diagnosis in the case of injuries involving the shoulder-joint are very frequent. My personal experience furnishes me with probably forty or fifty cases in which the head of the humerus has been supposed to be dislocated when it was not; or in which it has been supposed to be broken when it was not. For this reason it is important that you be informed of every known means of diagnosis; and to those which are already known and published I will now add two more, of which you will be able pretty often to avail yourselves.

When the head of the humerus is in its socket it projects outwards, beyond the extremity of the acromion process, from half an inch to an inch; varying more or less according to the age and size of the person. It projects also in front of the acromion process a little but not at all behind.

In case of a dislocation, in whatever direction the head of the humerus is displaced, there can be no bony projections outwards beyond the acromion process. This fact may be ascertained always, unless there is very great swelling of the soft parts over the point of the shoulder; but it will be necessary that you should be familiar with the natural outline of the acromion process, and this is a study which medical students and medical men too much neglect, namely, the study of the natural form of the surface of the body, or what I call "Superficial Anatomy." You must learn to know where is the outer end of the clavicle, where is the outer end of the acromion process, and where is the coracoid process, if you expect to determine the existence or absence of a dislocation of the shoulder. This exercise you can pursue in your bedrooms, on your own persons or on the persons of others. With a camel's-hair pencil, moistened with the tincture of iodine, you can mark out upon the skin the line of the clavicle, acromion process, spine of the scapula, etc. In attempting this for the first time you will probably find that there is much to learn that you did not know before, however thoroughly you have studied the anatomy of the shoulder in the dissecting-room, when the skin is removed. The same applies to all the other joints of the body; and now you will understand why some men, perhaps wholly ignorant of anatomy as it is usually taught, but familiar by long practice with superficial anatomy, will recognize in a moment the nature of a joint injury, which you may fail after a very careful examination to detect.

Let us return to the consideration of the two special signs of shoulder-joint dislocation (liable to only one exception, as I shall hereafter explain), which I wish to add to those already given by surgical writers.

First. While the head of the humerus remains in its socket, if a rule be laid upon the outside of the arm from the shoulder to the elbow, it will not touch the acromion process, but will be distant from it at least half an inch, generally one inch or more. On the other hand, if the bone is removed from the socket, in whatever direction it may be displaced, whether forwards, downwards, or backwards, unless the shoulder is much swollen, the rule, placed in the manner above stated, will touch the acromion process.

Second. If, standing behind the patient (in case of the right shoulder) the thumb and forefinger of the left hand is made to grasp the top of the shoulder in such a manner as that the interdigital commissure shall rest upon the acromion process, just outside of the acromio-clavicular articulation; and if then the finger and thumb are dropped perpendicularly, the tip of the finger will (in case the head of the humerus is not dislocated) rest upon the centre of the round upper extremity of the humerus, as it projects in front of the acromion process, while the end of the thumb will rest upon the head of the humerus behind; but the head will be felt indistinctly by the thumb, for the reason that, instead of projecting as it does in front, it actually recedes a little beneath the acromion process. Up to this moment the surgeon may entertain some doubt whether he is actually grasping with his thumb and finger the head of the bone; but if he now moves the elbow of the injured limb forwards, so as to carry the head of the humerus backwards in its socket, he will feel it press strongly upon the thumb, and this will be conclusive. If a dislocation exists, the head of the bone cannot be felt in this situation, and by the thumb thus placed.

I have told you that both of these differential signs, in their application to shoulder-joint injuries, are liable to one exception. The phenomena would be the same, so far as these two signs are concerned, whether there was a dislocation of the head of the humerus, or a fracture with displacement of the neck of the scapula. The latter accident must, therefore, be first excluded by a careful application of the rules of diagnosis given in our treatises upon surgery; but that upon which you can most safely rely is the relative infrequency of the two accidents. It is doubtful, whether a long and active surgical practice will ever furnish you with an example of fracture of the neck of the scapula, while you will meet with a great many cases of dislocation of the shoulder.—*N. Y. Medical Record.*

INDURATED BUBO.

In the practice of the Philadelphia Hospital better results are claimed for the following method of treatment than any other that had been adopted:—Cover the part freely with mercurial ointment, and keep up constant pressure by means of a *hot brick*.—*N. Y. Med. Record.*

INGROWING TOE-NAIL.

Professor Sayre says (*N. Y. Med. Record*, Sept. 1,) that immense relief can be afforded by applying a a few threads of cotton beneath the cutting-edge of the nail, in such a manner as to protect the excessively tender tissues from the irritation produced by being crowded in contact with it. When the cotton is properly applied, pressure upon the ball of the toe will give no pain. The proper instrument with which to apply it is a narrow thin knife-blade without cutting edge. With this instrument draw a few threads of cotton down between the nail and the mass of granulations, and so on until they are carried beneath the cutting-edge of the nail. This operation will give some pain during its performance, but the relief which will be afforded by it will be most marked. After the application of the cotton, pencil the fungous granulations over freely with nitrate of silver, or with whatever may be used for the purpose of destroying them. Repeat the application as often as the destroyed tissues separate, until the exuberant growth is all destroyed.

DENTITION AND LANCING THE GUMS.

BY JOHN WARD, M.D., GRANGE-OVER-SANDS.

As an advocate of the judicious use of the gum-lancet in alleviating the woes of infancy, I regret that the benefits to be derived therefrom are not more fully appreciated by the profession at large.

Not forgetting the influence of constitutional peculiarity; the susceptibility of the high nervous organization of many infants of the present day; the effects of diet; the influence of climate and its effects, as modified by clothing and indoor temperature; together with the benefit to be derived from well timed outdoor exercise, I have long noticed a remarkable effect on the progress of dentition—other things being equal—as influenced by geological formation. Not only have I found a most marked difference in the case of my own children during this period of development, according as their residence was on the mill-stone grit formation, or on the carboniferous limestone, in favour of the latter; but I have been struck with the comparative ease with which dentition is passed through by children generally located on the latter formation.

To what extent the soothing influence of the sea-air may exert a beneficial influence of the sympathetic irritations of this period, I am scarcely prepared to say. That water of a moderate amount of hardness is beneficial as an article of diet in such cases, as indeed during the period of the physical development of the organization, I think will be borne out by the test of experience. As an instance in point: a somewhat delicate child eleven months old, living on the out skirts of a town which is supplied with water remarkably soft from the gritstone, was confided to my care for a while during the recent summer; and, in the short period of four weeks, it cut the four central incisor teeth; the wind being north-east and the lancet repeatedly used. The lateral incisors and first temporary molars made rapid progress. Referring to the wind being in the north-east. I have observed that, during the prevalence or even the sudden accession of a north-east wind current, the teeth appear to make rapid advance, which advance, should the wind change, may as suddenly subside. This may more or less account for the perplexity which has overtaken others, as stated by Dr. Finlayson, who says, in his recent paper on the above subject in the JOURNAL, "that symptoms almost precisely the same as those usually attributed to teething were frequently observed before the time for the appearance of the teeth had arrived, and that these symptoms, at whatever age, frequently appeared and subsided without any fresh tooth coming to the surface."

It is during this teething impulse that the use of the lancet comes most timely to our aid, should any one of the frequent concomitant symptoms, such as diarrhœa, sickness, or tendency to convulsions, threaten; or should even the milder symptoms of irritability of temper, languor, etc., appear; and, on inspection, the probabilities in any degree in any degree warrant the conclusion, that the teeth may be at the foundation of the cause.

No absolute or precise rule can be laid down as to the exact age at which the irritations attributed to teething arise, some children being actually born with teeth. Some authors speak of two periods of irritation from teething one, when the tooth is deep down in the gum, surrounded with its fibrous envelope; and the other, just as it makes its appearance. Without exactly endorsing this view, I am inclined to think that the sympathetic irritations are most felt some time before the teeth are at the surface; and that it is from inattention to this, and when the lancet has been applied merely to those just about to emerge, that disappointment has been experienced and the operation brought into disfavour. If experience have not been gained by practice, it may require some effort to judge accurately which tooth or teeth need the liberating assistance of the lancet, as it is known that they do not always make their appearance in the same order; but there will generally be evidenced a fulness of the gum, and sometimes rotundity and redness of the free surface, with which practice will make familar. Making exception of isolated cases, which rarely may occur, where the health of the child is impaired, the vascular system unduly relaxed, as in cases manifesting a tendency to scurvy, purpura, etc., my own experience would lead me to fear little from hæmorrhage.

I cannot agree with Dr. West, "that circumstances in which the use of the gum-lancet is really indicated are comparatively few", as it has often fallen to my lot to see unpleasant symptoms, varied in their manifestation, speedily subside upon the gums first being relieved, and then attention being

directed to the special concomitant symptom; as, for instance, in cases of diarrhœa, moist warmth to the abdomen, followed by the application of the flannel binder; and, when the infant is weaned, the substitution of the milk-whey diet for a time, taking care, on return to the ordinary food, that, should the raw milk prove purgative—as is often the case when the cows are fed on roots in the winter months—to recommend its being boiled previously to using. It is my firm opinion that, by the free and judicious use of this instrument, infant mortality might be very considerably reduced, and many untoward symptoms nipped in the bud.

In the choice of an instrument, my experience has led me to use Syme's abscess-lancet, enfolding all but about half inch of the end of the blade with a piece of tape or linen, which may be at hand, in preference to the ordinary gum-lancet; or one which Messrs. Wood of Manchester have made me to order, in shape like Syme's, but with a cutting surface of barely half an inch on the convex or upper surface near the point, and rather more on the under surface. This—taking care that it is scrupulously clean—when guided in the mouth, under shelter of the second finger, is very convenient, and enables the operator to make his incision just over the tooth, cutting down with nicety on the entire length of its surface, longitudinally, under ordinary circumstances, or crucially, especially in the case of the molar teeth, if the symptoms be urgent or the gum unusually tough.

The position of the child most convenient I have found to be, for lancing those of the lower jaw, an upright sitting one on the nurse's lap, the infant's head leaning against her breast, and she holding its hands; for the application of the lancet to the upper jaw, laying the infant on its back across the nurse's knee the operator standing at its head, taking care he has a good light. A drink of cold water is very refreshing to the little patient immediately after the operation.

I always endeavour to arm myself with the weapon, the judicious use of which I have been advocating, as it is one which I have found necessary to call into requisition much more frequently than any other in the *armamenta* of the surgeon, *British Medical Journal.*

DIPHTHERIA: A NEW TREATMENT.

BY H. V. SWERINGER, M.D., FORT WAYNE, INDIANA,

I have had some experience in the treatment of this disease during an epidemic which visited the city of Fort Wayne, Indiana, the present winter (1874-5); and, notwithstanding the fact that what success I had, occurred in the latter period of the epidemic, which in all epidemics is usually considered the mildest portion, yet I cannot avoid attributing that success in a great measure to the change I adopted in my treatment; and I believe that I am warranted in so doing by the facts that the disease was yet at this time quite generally fatal, and that out of a number of severe and well-marked cases I was so fortunate as not to lose a single one under my new treatment. I call it *my* treatment because I have never heard its theory suggested, nor have I seen it in print. I have not yet had an opportunity of testing its value in the *severest* or *most malignant* cases, such as occurred in the earlier part of the epidemic, but I feel confident that in a large proportion even of these, if adopted *early*, it will prove successful. The discovery which I have been flattering myself as having made—and it remains for future experience to establish its value—is, that *prompt cinchonism, followed by an alterative tonic, is, not absolutely a specific, the most proper and successful treatment for diphtheria.*

It may be said, however, that quinine as a remedy in diphtheria is not new; that it is almost invariably given in the course of the disease. This is true; but it is equally true that it has never been given with any specific object in view, other than its tonic or antiperiodic effect. It has usually, in fact, in this disease, been given on the "hit or miss" principle. The remedies commonly considered of the most value in the treatment of diphtheria are the muriated tincture of iron, chlorate of potassium carbolic acid, and nitrate of silver; the former three, given both constitutionally and locally, the latter applied locally only. All the text books which I have consulted seem to rely chiefly upon the above-named remedies.

It is the *condition* known as *cinchonism* which is produced by the administration of quinine in *positive* doses until its peculiar physiological effects are induced to a *marked degree*, that I contend *is the first grand object to be accomplished in the treatment of diphtheria.* This statement is based upon the confidence I have in the antiseptic properties of quinine *if properly administered*, and the belief that when the condition of cinchonism is fully established, the septic poison in the circulation is then neutralized; and this belief is founded on the *fact* that in every case that I have thus treated, just so soon as that condition was established, the exudation became detached without any local interference whatever; none during the whole course of treatment. Another important *fact* in this connection is, that the most severe and malignant cases I had were those in which it was most difficult to establish the condition of cinchonism. A little boy six years of age, son of C. L. Thomas, Esq., residing at No. 134 Jackson Street, Fort Wayne, Indiana, took sixty-four grains in forty-eight hours before he complained of "ringing in his ears or deafness;" but when this took place the membranes became detached of their own accord, his appetite in a measure returned, the swelling of the submaxillary glands began to subside, and in a comparatively short time he made a good recovery. In this case I did not make a single local application. In fact, I have abandoned local treatment altogether except in cases where it is absolutely necessary to remove excessive mechanical obstruction of the air-passages, or where it is necessary to correct the fetor by disinfectants. I had six other cases under treatment about the same time, all of whom were

well-marked, and the line of treatment pursued in each was as follows:

℞ Quin. sulph., gr. xxxii;
Acid. tannic., gr. x;
Syr. simp., f ℥ i;
Tr. ol. menth. pip., gtt. iii.—M.

Ft. mist.

Sig.—A teaspoonful every three hours until cinchonism is induced.

After which I administered the following:

℞ Potassii iodidi, gr. xxxii;
Potassii bromidi, ℥ ii;
Syr. simp.,
Tr. cinch. co., āā f ℥ i.—M.

Ft. sol.

Sig.—A teaspoonful every three or four hours.

The above may be given alternately with the following:

℞ Tr. ferri chlor., f ℥ ii;
Syr. simp., f ℥ vi.—M.

Ft. mist.

Alum or ipecac as emetics are useful when the exudation shows a disposition to extend to the larynx, or when there is much difficulty of breathing from tumefaction of the fauces, or from accumulation of the pseudo-membranous deposits. Food,—milk, beef-tea, and stimulants,—brandy, wine, etc., constitute a very important part of the treatment.

If the principles involved in the foregoing considerations of the treatment of diphtheria be correct, may we not reasonably conclude that the same or similar treatment will prove of great value in cases of puerperal fever and erysipelas?—*Philadelphia Medical Times.*

THERAPEUTIC NOTES.

Treatment of Diphtheria and Scarlet Fever.—Dr. G. Mayer (*Fahrb. f. Kinderk.*, vii. 4) is strongly in favor of the treatment of diphtheria by ice. Even in children under one year he directs small pieces of ice to be put frequently into the mouth, followed, if possible, every minute or two by a teaspoonful of iced water. The ice must be pure, and therefore all artificially prepared is best. In severe cases the external use of cold, by means of an ice-bag applied round the throat, is very useful. The author has found that by this mode of treatment the fever soon diminishes, and the diphtheritic membrane is detached and expectorated. It is only in exceptional cases that the disease extends nevertheless to the larynx. But in one case the author was obliged, in order to reduce the temperature, to resort to cool baths. The latter he also found very useful in scarlet fever. Whenever the temperature exceeds 102° in scarlet fever the patient is to be placed for ten minutes in a bath of a temperature varying from 93° to 73°, according to the intensity of the fever. The effect of these baths in reducing the temperature lasts for two or three hours.

Ready for an Emergency.—According to the editor of the *Union Médicale*, a female practitioner in Paris was recently so overcome by the gush of blood in a case of post-partum hemorrhage that she fainted. By the time she recovered the patient was dead.

A VERACIOUS CHRONICLE.

The following rich gynæcological contribution is reported in the columns of the *American Medical Weekly* for Nov. 7th, 1874, by L. G. Capers, M.D., Vicksburg, Miss. Readers will not fail to observe the modest tone in which the author commences his description of the case. It will prove so interesting that we cannot forbear giving the whole *in extenso*.

"Attention Gynæcologists!—Notes from the Diary of a Field and Hospital Surgeon, C. S. A.

"How common it is now-a-days, and how natural, too, for men to tell wonderful stories about 'the war;' their desperate charges; hair-breadth escapes; numbers who have fallen victims to their feats of personal valor, etc., etc. Then every surgeon has performed any number of wonderful operations before unheard of in the annals of surgery!

"Until the present moment, I have refrained from bringing before the public, and more particularly the Profession, any of my daring exploits or remarkable surgical procedures; and even now I feel a delicacy in offering the following remarkable case, the relation of which is prompted only by a sense of duty to my professional brethren. Doubtless many will pronounce the facts to be presently related as unusual or impossible; to such I need only, say, if not, why not?

"Here are the proofs:

"On the 12th of May, 1863, the battle of R. was fought. Gen. G.'s brigade met the advance of Grant's army, under Gen. L., about one mile from the village of R. About three hundred yards in rear of my regiment was situated a fine residence, the occupants being a matron, her two daughters, and servants (the host being absent in another army.) About 3 o'clock p.m., when the battle was raging most furiously, the above-mentioned lady and her two daughters (aged respectively fifteen and seventeen), filled with interest and enthusiasm, stood bravely in front of their homestead, ready and eager to minister to their wounded countrymen should they fall in the dreadful fray.

"Our men were fighting nobly, but pressed by superior numbers, had gradually fallen back to within one hundred and fifty yards of the house. My position being near my regiment, suddenly I beheld a noble, gallant young friend staggering and then fall to the earth. In the same moment a piercing scream from the house reached my ear! I was soon by the side of the young man, and, upon examination, found a compound fracture, with extensive comminution of the left tibia; the ball having ricochetted from these parts, and, in its onward flight, passed through the scrotum, carrying away the left

testicle. Scarcely had I finished dressing the wounds of this poor fellow, when the esteemable matron came running to me in the greatest distress, begging me to go to one of her daughters, who, she informed me had been badly wounded a few minutes before. Hastening to the house, I found that the eldest of the young ladies had indeed received a most serious wound. A minnie ball had penetrated the left abdominal parietes, about midway between the umbilicus and anterior spinal process of the illium, and was lost in the abdominal cavity, leaving a ragged wound behind. Believing there was little or no hope of her recovery I had only time to prescribe an anodyne, when our army fell back, leaving both field and village in the hands of the enemy.

"Having remained with my wounded at the village of R., I had the opportunity of visiting the young lady the next day, and, interruptedly, for a period of nearly two months, at the end of which time she had entirely recovered, with no untoward symptoms during treatment; save a severe peritonitis, she seemed as well as ever!

"About six months after her recovery, the movements of our army brought me again to the village of R., and I was again sent for to see the young lady. She appeared in excellent health and spirits, but her abdomen had become enormously enlarged, so much so as to resemble pregnancy at the seventh or eighth month. Indeed, had I not known the family and the facts of the abdominal wound, I should have so pronounced the case. Under the above circumstances, I failed to give a positive diagnosis, determining to keep the case under surveiliance. This I did.

"Just two hundred and seventy-eight days from the date of the receipt of the wound by the minnie ball, I delivered this same young lady of a fine boy, weighing eight pounds. I was not very much surprised; but imagine the surprise and mortification of the young lady herself, her entire family. This can be better imagined than described. Although I found the hymen intact in my examination before delivery, I gave no credence to the earnest and oft-repeated assertions of the young lady of her innocence and virgin purity.

"About three weeks from the date of this remarkable birth, I was called to see the child, the grandmother insisting there was 'something wrong about the genitals.' Examination revealed an enlarged, swollen, sensitive scrotum, containing on the right side a hard, roughened substance, evidently foreign. I decided upon operating for its removal at once, and in so doing, extracted from the scrotum a minnie ball, smashed and battered as if it had met in its flight some hard, unyielding substance.

"To attempt to picture my astonishment would be impossible! What may already seem very plain to my readers, as they glance over this paper, was, to me, at the time, mysterious. It was only after several days and nights of sleepless reflection that a solution flashed before me, and ever since has appeared as clear as the noon-day sun!

"What is it? The ball I took from the scrotum of the babe was the identical one which, on the 12th of May, shattered the tibia of my young friend, and in its mutilated condition, plunged through his testicle, carrying with it particles of semen and spermatoza into the abdomen of the young lady, then through her left ovary, and into the uterus, in this manner impregnating her! There can be no other solution of the phenomenon! These convictions I expressed to the family, and, at their solicitations, visited my young soldier friend, laying the case fully before him in its proper light. At first, most naturally, he appeared sceptical, but concluded to visit the young mother. Whether convinced or not, he soon married her, ere the little boy had attained his fourth month.

"As a matter of additional interest, I may mention having received a letter during the past year, reporting a happy marriage state and three children, but neither resembling, to the same marked degree, as the first—our hero—Paterfamilias!".—*Lancet.*

FORMULA FOR VOMITING IN GASTRIC CATARRH

Mr. T. Lauder Brunton gives the following formula which he has found very useful in gastric catarrh and subacute gastritis:—

℞ —Bismuthi subnit. gr. x.
Potass. bromid. gr. xv.–xx.
Acid. hydrocyan. dil. m v.
Spt. chloroform. m x.
Mucilag. tragacanth fl. ʒ ij.
Aqua ad fl. ℥ j.

Sig.—To be taken every three or four hours.

The medicine should be given about ten minutes before food, so as to diminish the irritability of the stomach and prevent the rejection of the nourishment, and it is often advisable to make the patient lie down on the left side during or immediately after the meal. A tendency to vomit is often increased by lying on the right side.—*Practitioner*, Dec., 1874.

TREATMENT OF GONORRHŒA.

The following is an extract from a lengthy article by Dr. Haberkorn, in the *Berl. Klin. Wochenschrift* No. 34, on the above subject:

Injections of permanganate of potassa, carbolic acid, sulphate of zinc, and other remedies, have all proved more or less insufficient in the treatment of gonorrhœa. After repeated experiments the author has found the sulphate of quinine to be a far superior remedy, being prompt in its action and nearly painless. He directs about a teaspoonful of the following mixture to be injected three times a day, retaining it for some time in the urethra:

℞ Quiniæ sulphat., gr. xv.
Acid. sulphur., dil. ♁ j.
Glycerinæ, f ʒ vj.
Aquæ, f ʒ ij.

After three days a great improvement took place in all his cases. The expense of the medicine is covered by the rapidity of the cure. These results therefore justify a more extensive trial of this remedy.

THE WET SHEET IN SCARLATINA.

BY JOHN TAYLOR, M.R.C.S., L.S.A.

As the present high rate of mortality from epidemic scarlatina may justify practical suggestions prompted by experience, I feel it my duty to endeavour to excite the profession to a reconsideration of the remedial powers of the wet sheet as an auxiliary in promoting cutaneous elimination.

Though all agree as to the importance of promoting and sustaining cutaneous elimination in the prevention of cerebral, spinal, and other congestions, and, at a later stage, the disintegration of mucous membranes, dropsy, and glandular enlargements, yet this simple, powerful, and ready-at-hand auxiliary is unappreciated. Forty years' experience has assured me that this plain or medicated vapour-giving envelope affords the best *external* means for eliminating scarlatinal poison and preventing destructive sequelæ. It promptly suppresses pyrexial heat and itching; produces sleep, with a soft secretive skin, more or less continuously; and enables the digestive organs to accomplish that great desideratum in the treatment of scarlatina—viz., absorption of highly nutritious food. It may be repeated, on the recurrence of the febrile paroxysm, two, three, or four times in twenty-four hours, the patient remaining enveloped from half an hour to an hour. Mothers and nurses who have witnessed its efficacy are most earnest in its repetition. My plan of procedure is to immerse a nightgown, slit up at the front, in hot water (half a pint to a pint), pure, or medicated with a drachm or two drachms of tincture of capsicum, or in the infusion of three or four pods; or in mustard-water, the clear supernatant fluid from a tablespoonful of mustard to a pint of water; extending the gown over the feet by means of a towel immersed in the same fluid, both to be well wrung out and suddenly applied, and the patient quickly packed in two blankets previously placed on the adjoining sofa or bed; another blanket, or two pillows, or an eiderdown quilt covering all.

The medicated packing is preferable in the incipiency, and at any other time to evoke the rash, and in cases of cerebral oppression, with pale skin, low pulse, and delirium. Last month I had a case of this type, in which the mustard packing was applied. It did not elicit the rash, but it cured the delirium raised an alarmingly depressed pulse, and restored the excretions. This effect was solely dependent on the medicated packing, as the patient, a girl of thirteen, could not swallow medicine or food, and enemata had not then been administered. With the aid of a tonic she made the best recovery of three in the same family, and had no sequelæ.

The auxiliary mode of treatment here defined is by no means intended to exclude the ordinary plan which every practitioner's experience has led him to select and rely upon; but I am of opinion that if packing is judiciously incorporated with such reliable treatment, it will be the means of saving many lives that would otherwise be lost, and of diminishing the severity and duration of the sequelæ.

I further believe that in other cases of blood-poisoning the exhibition of medicaments cutaneously by vapour would in some degree neutralize the poison, aid its elimination, and, as in packing, soothe the whole nervous system. During a cholera epidemic in Liverpool I had part charge of a district where nearly all who first went into the hospital died. One woman, with cholera in the malignant form, was packed in a wet sheet with half a pound of mustard, and remained enclosed six hours, notwithstanding her imploring entreaties to be released. She drank copiously of iced water. The vomiting, purging, and cramps began to abate in two hours, and had ceased when she was unwrapped, presenting the ordinary lobster change from blue to red. Gastric fever, with great thirst, ensued for several days, when she recovered as a brand plucked from the burning.

Modern parliamentary mustard, deprived of capsicum and other adjuvantia which made it formerly a condiment so famous, would not have answered the purpose. Doubtless, *persevering cutaneous elimination* is a great medical power.

Not only as an eliminator may the wet medicated envelope be used, but as an antispasmodic in the relief of pain and irritation in any of the membranes, mucous, submucous, or serous; with the aid of chloral, morphia, conium, belladonna, nux vomica, &c., dissolved in the water, or sprinkled on any particular part of the wet sheet. It has the merit of antiquity from the ancient Romans, and among the farmers of Great Britain for the relief of colic and the inflammatory diseases of cattle. A sheet, wet with some herb decoction, or water sprinkled with turpentine, was thrown over the suffering animal, and enveloped by blankets, quilts, and overcoats, snatched from the beds on which "the rude forefathers of the hamlet slept." And, doubtless, many a pang was thus allayed and many a life preserved. Modern experience has witnessed the amazing relief procurable from the wet sheet, in its simple form, in pyrexial and glandular disorders, and from the medicated form in the zymotic and spasmodic affections. In stridulous croup, for instance, I have seen the mustard sheet act magically after other means more orthodox had failed. Its power is also potential in diphtheria simulating croup, and, in strong doses, in inflammatory croup, sometimes averting the impending tracheotomy knife.

The suggestion to use this auxiliary plan of treatment should not be slighted because of its antiquity or of its having been used empirically. Many blessings, moral and physicial, have fallen into disuetude, and require revivals to awaken a consciousness of their existence and utility; and this is one of them, lying neglected within our reach. Objection would be rational if the more primitive plan of enveloping the suffering man or beast within the skin of a newly killed animal were recommended; but when one so simple and close at hand, so easily adapted, so soothing, and so powerful as an auxiliary in the routine of medical treatment, is recommended, suffering humanity should have the benefit of it, especially where no self-interest prompts the recommendation—except the satisfaction of doing good by presenting the cup of cold water so typical of charity.—*Lancet.*

ANOINTING WITH COCOA-BUTTER IN SCARLET FEVER.

Upon the recommendation of Schneeman, the anointing of the body with fat has been extensively practised in Germany, during more than twenty years, with the view of lowering the temperature, and hastening the desquamation. Dr. Bayles suggests, in this connection, the employment of cocoa-butter as producing a more cooling and refreshing effect upon the patient, and emitting a more agreeable odour in the sick chamber. This agent, on account of its solid consistence, is more readily applied than either fat or oil, and is more easily absorbed by the skin. Furthermore, it is thought to afford the system a certain amount of nourishment. In severe fevers, the entire surface of the body should be rubbed with this substance every hour, or at least once every four hours. Its application is also recommended in typhoid fever in cases where the patients manifest a dread of water or where the application of water is impossible; likewise in other inflammatory diseases, especially the severer forms of inflammatory rheumatism, and in tuberculosis.—*London Med. Record*, Nov. 25 1875.

A NEW SIGN OF PLEURITIC EFFUSION.

According to Dr. Ward of New York (*New York Med. Journal*), it is easy to determine fluctuation of liquid in pleuritic effusions as well as in ascites and in ovarian cysts. When the chest is full of water, by having an assistant to use percussion in the second or third intercostal space, and by placing one's finger in the seventh intercostal space, where thoracentesis is practiced, the feeling of fluctuation, according to Dr. Ward, is distinctly given.

A correspondent of the *Dublin Medical Press* gets off the following very good satire on the names of the Dublin medical men. He says:

On looking over the names of our Dublin medical men, it has occurred to me that much convenience would result from each devoting himself to that branch of his profession indicated by his name. Thus I would place the lunatic asylums under the charge of Dr. Madden, the more violent cases being attended to by Dr. More Madden. I think that Drs. Boyes and Birch might fairly be deputed to look after the weaknesses of young persons; while Dr. Luther would be at home in charge of the Adelaide Hospital. The Lying-in Hospitals fall naturally to Drs. Bredin and Kidd; while hysteric affections should be treated by Drs. Cryan, Smyly, and Laffan. Diseases of the bladder might be left to Dr. Stoney; while for baldness I do not know any more suitable advisers than Drs. Hare and Head. All matters relating to fees should be referred to Dr. Price; while attendance should be regulated by Dr. Daly. For lameness I would consult Drs. Walker and Foot; for shot wounds, Dr. Gunn; but for operative surgery, undoubtedly Surgeons Steele, Butcher, and Gore would be selected. For skin diseases, I would call in Dr. Peele; while questions of food might be left to Drs. Fry, Boyle, Cooke, Rice, and Porter.

ITCH.

In this disease, Dr. F. W. Clemens reports, in the *Allgemeine Medicinische Centralzeitung*, excellent results, with the following ointment:—

℞.	Arsenious acid,	grs. ij
	Carbonate of potash,	grs. x
	Spirit of soap,	ʒ j
	Water, to	ʒ j. M.

Sig. Rub twice daily on the infected parts. He has never seen any ill effects from this preparation and its action had proved very prompt, curing "in a few days."

CHLORATE OF POTASH IN OZÆNA.

Dr. Eyselein, of Blänkenberg, reports a very obstinate case of ozæna, which he had cured by painting the ulcerous nasal membrane with a solution of chlorate of potash, one part to six of water (by weight)

THE THERAPEUTIC VALUE OF IODIDE OF POTASSIUM.

THE CANADA MEDICAL RECORD

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MONTREAL, APRIL, 1875.

WESTERN HOSPITAL OF MONTREAL.

The second annual meeting of the Corporation was held on the 14th April, when the following officers were elected: President, Major Mills; 1st vice-president, William Workman; 2nd vice-president, Hugh McLennan; treasurer, James Jack; secretary, James Coristine. It was announced that the gentleman from whom the Western Hospital had bought their ground was willing to accept sums of five thousand dollars, when convenient for the Society to pay it. It was unanimously decided to accept this offer, and a second sum of five thousand dollars has since been paid. As the amount of money for the land purchase has been subscribed, it is anticipated that the ground will be entirely free of debt sufficiently early in the autumn to allow the foundation for Major Mills' building to be laid before the snow sets in.

MONTREAL GENERAL HOSPITAL.

At the last quarterly meeting of the Governors of this charity, a notice of resolution, given by Mr. T. M. Taylor, was brought up for discussion. The object of this motion was to take the appointments of the House Surgeon, Assistant House Surgeon and

Apothecary out of the hands of the Medical Board and Committee of Management and place it in the gift of the Board of Governors. The resolution was, we learn, carried unanimously.

A HOST OF CHANGES.

There has been quite an earthquake among the two English Medical Schools in Montreal, and the resulting changes can be ascertained on a reference to our personal column. For a time the Medical atmosphere was not the clearest, but the genial air of spring has calmed it materially, and once more all is quiet and serene. May it so continue!

MEDICAL FACULTY BISHOP'S COLLEGE.

The session at this school terminated on the 19th March. The following gentlemen passed their examination *on Botany:* Mr. Casey A. Wood, Ottawa, Ont.; Mr. William Young, Montreal; Mr. J. B. Tressider, Montreal; Mr. C. R. Belle, Montreal. *Primary Examination*, for the degree of M.D. :—Dr. Frederick Benoit, Longueuil; Mr. John T. Davis, Barbadoes, West Indies, and Mr. Anthony Kerry, Moutreal.

Final Examination, for the degree *of M.D :*—Dr. Frederick Benoit, Longueuil; Mr. John T. Davis Barbadoes, West Indies, and Mr. Joseph Arthur Pidgeon, of Quebec. Mr. Davis is the prizeman in the Primary and the Final branches, and Mr. William Young of Montreal has secured the prize for the best dissector. The degrees in medicine will be conferred at the annual convocation of the University on the 24th of June.

TEST-QUESTIONS.

Some "Anti-Vaccination" delegates recently waited upon a candidate for the British House of Commons, and asked him whether, if they voted for him, he would support the repeal of the Compulsory Vaccination Act. His answer was, "If you will only vote for me to-morrow, you may all get the small-pox the next day if you like". The answer was not considered perfectly satisfactory.

THE CAUSATION OF SCARLET FEVER.

Dr. J. G. M'Kendrick of Edinburgh is at present engaged in a research on the causation of scarlet fever, of which there is an epidemic at present in Edinburgh. Microscopic examination with high powers reveals, we understand, the presence in the mucus, from the tonsils and in the skin, of minute bodies similar to those discovered by Klein in typhoid fever, and by Klebs in diphtheria.

THE LARGEST VOLUME IN MEDICAL LITERATURE

Dr. Triplett, of Washington, says, in an article in the *Richmond and Louisville Medical Journal*—"I must not omit mentioning a discovery made on the premises of Dr. J. M. Toner, late President of the American Medical Association. The basement of his house represents the vast index of a monster volume of 'Medical Literature.' Lettered drawers are filled in alphabetical order, with strips of paper, on which are marked the headings of all original contributions of the medical journals of this country, and properly numbered for quick reference. The upper rooms represent the body of the book. I had no idea there was such a huge volume, or so great a worker in town."

OBITUARY.

We regret to have to chronicle the demise of Dr. William H. Wagner of Dickinson's Landing, Ont., which took place on the 7th of April. Dr. Wagner was a graduate of Jefferson Medical College of Philadelphia; also of McGill College, Montreal. He was a man of much ability, and was much respected by his patients and friends.

PERSONAL.

Dr. R. N. Webber (M.D. Bishop's College) of Richmond, Que., has received the appointment of Professor of Natural Science in the St. Francis Agricultural College, which has just been organized by the Board of Agriculture. A farm at Richmond has been secured, and it is intended to make it the model farm of the Province of Quebec.

Dr. H. M. Jones has removed from Marmora to Cambermere, Ont.

Dr. Craik, Professor of Chemistry, University of McGill College, has taken a trip southward, with a view to recruiting his health, somewhat impaired by a very hard winter's work.

Dr. Lewis G. Hunt (M.D. McGill College, 1871) has removed from Deepcon, near Sheffield, England into the town of Sheffield, and entered into partnership with Mr. Barber, the Senior Surgeon of the Sheffield Royal Infirmary.

Dr. Arthur Brown, (M.D. McGill College, 1872.) late associated in practice with Dr. Fenwick, commences practice entirely on his own account after the first of May. Dr. Brown has rented the well-known Medical corner in Montreal, corner of Craig and Place d'Armes Hill, where we wish him every success.

Dr. Cline, (M.D. McGill College, 1874.) Apothe-

cary, Montreal General Hospital, read before the Medico-Chirurgical Society of Montreal, on the evening of the 16th April, a most interesting case of Progressive Muscular Atrophy in a boy near fourteen years. It began somewhat suddenly when the boy was between eleven and twelve years old. The atrophy was confined to the lower extremities, and progressive movements are made entirely by the hands. The patient was exhibited. The paper was the most interesting which the Society has had before it for some time, and we consider it a disgrace to the profession of Montreal, that so few members were present to hear it read.

Dr. R. T. Godfrey, Professor of Hygiene, McGill College, accompanied by his family sail in the *Peruvian* for Liverpool on the 1st of May.

Dr. George W. Campbell, Dean of the Medical Faculty of McGill College, and Professor of the Theory and Practice of Surgery, has resigned his chair. He still remains in the Faculty as Dean, and Emeritus Professor of Surgery. Dr. Campbell has been connected with McGill College, as Lecturer and then Professor of Surgery since 1836. He was elected Dean, upon the death of Dr. Holmes, in 1860.

Dr. George E. Fenwick, Editor of the *Canada Medical and Surgical Journal*, and late Professor of Clinical Surgery and Medical Jurisprudence in McGill College, succeeds Dr. G. W Campbell, as Professor of "the Theory and Practice of Surgery.'

Dr. Robert T. Godfrey, late Professor of the Theory and Practice of Surgery in the Medical Faculty of Bishop's College, has resigned his connection with that school, and has been offered the chair of Hygiene in McGill College, a Professorship of that branch being about to be established by the governors of the College.

Dr. Thomas G. Roddick, late Lecturer on Hygiene and Demonstrator of Anatomy in McGill College, has been appointed Professor of Clinical Surgery in the same school, the chair being vacant by the transferrence of Dr. Fenwick to that of Systematic Surgery.

Dr. William Gardner has resigned his Professorship of Medical Jurisprudence in Bishop's College, and has accepted the same chair in McGill College.

Dr. Richard A. Kennedy, late Professor of Anatomy in Bishop's College, has been elected to fill the chair of Surgery in the same school, rendered vacant by Dr. Godfrey's resignation.

Dr. James Perrigo (late Demonstrator of Anatomy in Bishop's College) has been elected Professor of Medical Jurisprudence, the chair vacated by Dr. Gardner.

Dr. William Fuller (late Demonstrator of Anatomy in McGill College) has been elected Professor of Anatomy in Bishop's College Medical Faculty, that chair being rendered vacant by Dr. Kennedy's transferrence to Surgery.

Dr. André Latour (M.D. Bishop's College, 1872) has been appointed Demonstrator of Anatomy in the Medical Faculty of Bishop's College.

Dr. Wolford Nelson (M.D. Bishop's College and M.D. McGill College, 1872) has been appointed Assistant Demonstrator of Anatomy in Bishop's College. He is to continue to fill his late position as Curator to the Museum.

Dr. Sheppard (M.D. McGill College, 1874) has been appointed Demonstrator of Anatomy in McGill College.

Dr. Godfroi Dubuc (M. D. Bishop's College, 1872) is about leaving Bedford, Q., to settle in Montreal.

His Worship the Mayor of Montreal, Dr. Hingston, entertained at Dinner on Tuesday, the 13th inst., the members of the Medical Faculties of McGill College, Bishop's College, and Victoria College. A very pleasant time was passed and for the nonce, the rivalry of Schools was smothered around His Worship's festive table. The professors in one school toasted the professors of the other schools most cordially. We have rarely seen a more genial party.

MEDICAL SCRAPS.

A New York medical man has christened his daughter Glycerine. He says he will prefix Nitro to it if he finds her temper to resemble her mother's.—There are six hundred and fifty doctors in Chicago.—The New York Academy of Medicine has purchased a building for its use, at a cost of $42,500.—Sir Henry Thompson, owing to the pressure of private practice, has resigned his post as Surgeon to the University College Hospital, London, also his Professorship of Clinical Surgery.—Three brothers named Delafield died almost simultaneously in New York about the middle of February from pneumonia. They were aged respectively eighty-five, eighty-three and eighty-one years. They were all buried at the same time.—The Countess of Schlippenbach, in Crotia, was recently delivered of four infants at a birth,—three girls and a boy.—A woman named Latouche in Quebec on the 10th of last November had four boys at one birth.—Dr. Williams of Bridgeport, Kentucky, reports in the *American Medical Weekly* that he recently confined a negro girl, aged 11 years and 3 months, of a male child well formed and weighing 8 pounds. Mother and child did well.—Take of elastic collo ion one ounce, hydro

chlorate of morphia fifteen grains. Dissolve the morphia in the collodion. Spread with a camel's hair pencil some of this solution over the painful part and cover with oil silk. The effect is said to be most satisfactory.

REVIEWS.

Cyclopædia of the Practice of Medicine. Edited by Dr. Von. Ziemssen, Professor of Clinical Medicine in Munich, Bavaria. Volumes I and II, Acute Infectious Diseases. New York, William Wood & Co.

These two volumes, kindly sent us by the American publishers, have been in our possession for some time, and would have been noticed at an earlier date had we not desired to have an opportunity of examining them thoroughly before pronouncing an opinion. This we have been enabled to do. The work we may premise is issued by Messrs. Wood & Co., of New York, the translation of the various articles from the German, being made by Medical men residing in various portions of the United States, and although none of their names are familiar to us, we feel thoroughly satisfied that the work has been well done. All the articles read smoothly, a matter sometimes difficult of accomplishment when transcribing into a language so precise and dogmatical, as is our English tongue. Volume I. consists of some seven hundred pages, and contains papers on the following diseases:—Typhoid Fever—Relapsing Fever—Typhus Fever—Cholera—the Plague—Yellow Fever—Dysentery—Epidemic Diphtheria The first paper on typhoid fever is from the pen of Liebermeister, a physician of considerable German experience, who was at one time assistant to Niemeyer. Its length is considerable, occupying fully two hundred pages. As to the question of the contagiousness of the disease, he says, "from long experience I do not hesitate to assert that the opinion that typhoid fever can be purely contagious, and can be transmitted directly from person to person, is not founded on actual observation. Such an opinion is only a relic of the pastti me." He, however, classes it as a miasmatic contagious disease, and believes most-thoroughly that every epidemic and every isolated case of typhoid fever is due *alone* to the specific poison of typhoid fever. He says, "If the specific poison is absent, every other evil influence may act on the population without producing typhoid fever. No matter how well a field may be manured, wheat will not grow unless wheat be sown. Besides the presence of the poison, many other conditions are necessary to produce typhoid fever * * * they must find a favourable soil for their reception and growth * * * a *local disposition* for the production of the disease, and an *individual disposition* for its development." At page 161, in speaking of the complications which are met with in the disease, we notice that the trifacial nerve is mentioned as being liable to injury on incision being made to evacuate pus when the parotid gland is involved. This is evidently an error, the facial or portia dura being the only nerve likely to be so injured, as it passes through the gland, and as this is the motor nerve, paralysis would of course follow its section. When entering upon the treatment of a case Dr. Liebermeister advises much attention being shown to disinfect the dejections. The plan he follows is to use a porcelain bed-pan, and to have the bottom of it strewed with finely powdered sulphate of iron before it is used; immediately after the dejections have been passed, to pour upon them crude muriatic acid. The only remedy which we notice he refers to, and which is not generally mentioned in text books or generally used in this city, is iodine. This he used in about two hundred cases, and although it did not exert any specific effect in changing the course of disease, yet the mortality in his opinion was lessened. He also speaks favourably of calomel, at first in ten grain doses and then in 7½ grain doses—given early in the disease, and repeated at least three times in the twenty-four hours. The diarrhœa, at first increased, seemed to be afterwards lessened by this drug, and there was lowering of the temperature. Upon the subject of dietetic treatment but little is said; but water as much as would be taken in health is allowed, while milk is also strongly advised, not in its pure state, but diluted with water. We confess the subject of treatment is not as full as we should have wished.

We have not space to notice the other articles, but pass on to notice very briefly the article on diphtheria by Oertel. He claims the disease to be one of the oldest epidemic diseases of the human race, being known even to Homer and Hippocrates under the name of the Malum Egyptiacum. At the close of the first

century after Christ, Aretæus mentions it, and states that the tonsils are covered with "quodam concreto humore albo," which spread over the gums. He alludes to the discovery made by Hueter and himself simultaneously, that the diphtheritic membrane and even the blood contained in great numbers vegetable organisms or bacteria, to which he gives the name micrococci, and these he believes are the essential elements of diphtheritic contagion. He believes that the disease commences as a local disease and afterwards developes into a general one, until by blood poisoning it renders the organism incapable of life. We will not attempt to even give a synopsis of the treatment (save to allude to the heroic doses of quinine, ten to fifteen grains, three to four times a day, which he uses) for it cannot in any way be abbreviated, so thoroughly has the author jointed it. This paper and the first one on typhoid fever are really the best in the book. They will, moreover, be the more eagerly perused, for they describe diseases which are commonly met with.

Volume II., which has more recently reached us, is also upon acute infectious diseases, and contains papers on the following subjects:—Varicella—Measles—Rubeola—Scarlet Fever—Small-pox — Erysipelas — Miliary Fever — Dengue—Influenza—Hay Fever—Malarial Fevers — Epidemic Cerebro-Spinal Meningitis. As can be imagined from the above table of contents Volume II. is, taking it all in all, much more valuable to the practicing physician than is Volume I., as it contains papers on a class of diseases which are of very common occurrence. The most of the articles are well written, although one or two seem to us not to be quite up to the mark. The essay on scarlet fever is a really good exposition of the disease, and contains much of practical value in its treatment. The removal from the patients room of all useless articles of furniture, such as book cases, cupboards, curtains, carpets, &c., is strongly advocated, as is also an abundant and constant supply of fresh air. To prevent the dissemination of the dusty particles of the infecting epidermic scales, particularly during the period of desquamation, it is recommended that the body (including the head) should be rubbed twice daily with olive oil. Particular attention is directed to the fact that under no circumstances should the convalescent from scarlet fever be allowed to mix with the rest of the family till the desquamation is complete. We feel the importance of this, and yet we know how very difficult, if not utterly impossible, it is in the great majority of cases to have this rule carried out. On the question of hydro-therapeutics, in this disease, the author of this paper speaks strongly, and says that the old prejudice against baths, based on the fear that the patient may thereby take cold, must be laid aside. He feels convinced that since he has ordered a daily bath the nephritis has been less frequent and less severe. During the period of great fever, water which has been gradually cooled down is recommended, while, as the fever diminishes, the temperature should be gradually increased, and during the period of convalescence it should be warm. In mild scarlet-fever, when the patient is most likely to be very sensitive to cold, he suggests that only warm baths should be employed. As a dietetic article we notice that frozen beef tea is recommended, and we can very readily imagine that this method of giving nourishment in a frozen state would be exceedingly agreeable to the patient. Space forbids our saying more. We think that while many of the ideas of German authors should be received with considerable caution, yet a great mass of very valuable information may be gathered from the two volumes which have been already issued, and if subsequent numbers even show an equal character, we predict for this Cyclopœdia a very great financial success to its publishers. It is to consist of fifteen volumes, and they are to be issued at intervals of three months. The work can only be had by subscription, and is not, we understand, for sale at any book store in the Dominion or United States The cost of the volumes as received by us (and it is the cheapest style issued) is five dollars, but with finer binding it costs a somewhat higher rate. We very cordially, indeed strongly, recommend it to our readers. As an evidence of the value placed upon it by our Montreal physicians, we may state that there are about sixty of them who have subscribed for it. It is a splendid work for reference, and will, we are confident, amply repay the outlay.

BIRTH.

In Montreal on the 21st April the wife of R. Palmer Howard, M.D., of a daughter.

DIED.

At Dickinson's Landing, Ont., on the 7th April, William H. Wagner, M.D., aged 61 years.

Original Communications.

Meningeal Hemorrhage. By GEORGE A. BAYNES, M.D., C.M. (Read before the Medico-Chirurgical Society of Montreal.)

On the night of the third of March, I was called on to see W. H. B.; not being at home the messenger went for Dr. Scott, who saw him after having recovered from what was said to be a faint or fit. The doctor ordered him to bed and to receive a cup of tea.

On my return at 11 p.m., I went to the club, and saw him; he was lying in the stranger's room, on pillows; he was much excited, being very talkative and throwing his legs about. On enquiring, I found that he had had one fit or faint early in the evening, losing consciousness completely, but recovered almost immediately. After some little time he was dressed and placed in a cab to be taken home, when he said that he felt another faint coming on him, and only had time to step from the cab when he fell prostrate on the sidewalk. Calling some of the waiters, he was carried into the club again, and placed in the stranger's room, where I found him. After conversing some little time we dressed him and drove to his rooms in Bleury street: I gave him a purge of calomel and jalap, after which he soon fell asleep but was very restless all night.

March 4th.—Saw him both morning and evening to-day; at both visits he was dull and very heavy looking, dozing at intervals; complained of pain at the epigastrium and nape of the neck, the latter he attributed to the fall after getting out of the cab the night previous. In the evening I gave him a couple of cathartic pills, the purge of the night before not having operated. I remained with him till he was sound asleep.

March 5th.—Saw him at 11 a.m., he still had a very dull, listless appearance; bowels moved once; complained of dyspepsia; he had been subject to indigestion for some time, for which I had previously prescribed. He asked for more of the pills I used to give him, they were

℞ Ferri redacti gr. 40.
Zinci Valerianatis gr. xx.
Strychnin gr. j.
Glycerine gr. s. Ft. mass and divide into 20 pills, one three times a day after meals.

I also gave him a dose of bromide of potassium at night.

March 6th.—Much better to-day, but still very nervous and having a presentiment of another fit; walked about the room very restlessly from one seat to another; continued the pills with a dose of bromide at night.

March 7th. Very much better to-day, more lively; went out for a drive; slept well the previous night; continued the same treatment.

March 8th.—Still improving; walks with greater ease than previously, but still is nervous and fears another faint; I proposed a consultation. Asked him who he would have; said Dr. Campbell. I called on the doctor and made an appointment for the morrow; continued the same treatment with the bromide but stopped the strichnine pills.

March 9th.—Dr. Campbell saw him in consultation with me to-day; he told him he had slight congestion but he would recover, he must take this as a warning and to be very guarded in the future as to his living. Ordered him to continue the bromide of potassium with spt of chloroform, to get another purge of five grs. of calomel in a cathartic mass: he walked very fairly to-day but rather weak. Dr. C. pronounced his heart sound.

March 10th.—Much improved to-day, more lively; walked, talked, ate and drank well; went out for a drive: complained of no pain whatsoever; continued the same treatment.

March 11th.—Saw him this a.m., he was remarkably well, went out driving again to day, and wanted a beef steak, but I allowed him nothing but slops. In the evening about 10, I was sent for to see him as he had another fit; I went at once but he had just recovered as I entered the house. The messenger did not wait for me but went for Dr. Campbell who could not attend, so the messenger went on to Dr. Howard, who arrived almost immediately after I did, and prescribed:

℞ Ammon. bromid ʒ ij.,
Capsici tinct. ʒ iv.
Syr limonis ℥ j.
Aquæ ad ℥ vj.

A tablespoonful every hour until quiet or sleep ensues.

March 12th.—Very little better to day, weak and nervous, and has a presentiment of coming evil; wished to make his will. Saw him in the evening, was a little quieter; left him asleep; all evening he complained of pain in the back;

continued the bromide of ammonium and capsicum mixt.

March 13th.—Still very nervous and restless, so much so that I proposed to him to see Dr. Howard again, which he consented to: complained of great pain in back of the neck and spine, for which I dry-cupped him, it seemed to give him instant relief for he fell into a quiet sleep and continued so all night: stopped the capsicum mixt. to-day and returned to the bromide of potassium and sprts. of chloroform.

March 14th.—Dr. Howard saw him in the afternoon: on examination found his heart healthy, only excessively nervous. After the doctor left he talked quietly, and walked without faltering; seemed very much relieved in mind when his heart was pronounced healthy; examined his urine, but found nothing remarkable; continued the bromide and chloroform.

March 15th.—Better to-day, went out for a drive, ate, slept, and walked well; in the evening complained of pain in his back, for which I dry cupped him again.

March 16th.—Still continues well; went out driving again; ate, and walked well; still had a little pain in the back of the neck, this pain was aggravated at night so I cupped him again, affording the same relief which lasted all night: this evening for the first time he complained of pain in the back of the thigh; continued the bromide and sprts. of chloroform.

March 17th.—He was marvelously well all day; talked of starting for England the following week; drove himself out with a pair of horses; seemed very strong and well, no pain in the back; ate well, and walked as if nothing was the matter, but said he had a little rheumatism in the back of the thigh.

March 18th.—I was summoned at 1.30 a.m. to attend him in another fit: on my arrival I found him dead.

Family history was good, he had served in the Madras army for about seven years. He had told me he had suffered while in India from an attack of hypochondriasis, which was very troublesome both to himself and his medical attendant; also had attack of jungle fever. While here I had treated him for some minor complaints, but with these few exceptions he had had uninterrupted health.

Autopsy.—This was performed by Dr. Roddick—Demonstrator of Anatomy, McGill University. Thirty-six hours after death: weather cold; cadaveric rigidity very marked; body well nourished and fat; muscular system greatly developed; uniform purple discoloration of all the posterior part of the body.

Chest.—I may mention here en passant that the left pectoral muscles were absent. Lungs large; filled with dark blood; slight nodular fibroid induration at the apex of the right lung; largest and hardest in the left apex.

Heart not distended with blood, substance flabby; of good color; no opacities or discoloration visible in its cut substance, nor under the endocardium, nor in the fleshy columns; three or four minute white patches of atheroma in the substance of the fibroid ring to which the semilunar segment and anterior mitral segment are attached; no roughening of the surface of the walls on either side of the heart; no disease in fact in the heart except the patches of atheroma above mentioned: lining membrane of the ventricles and arch of the aorta deeply stained of a mahogany red from imbibition; some atheromatous patches without calcareous matter under the lining of the aortic arch, no aneurism of the thoracic or abdominal aorta.

Liver large, venously congested, not corrugated nor indurated: both kidneys normal, one much congested throughout and of dark red color like liver: spleen healthy.

Head.—Little blood escaped in cutting the scalp and calvaria: encephalon filled the scull, the membranes were closely applied to the brain, the dura mater normal, not injured at all by the saw or chisel: convolutions of the convexity and sides of the brain flat, and considerable transparent fluid in the sulci and meshes of the pia mater; extensive extravasation of blood at the base of the brain in subarachnoid space, most abundant and forming in thickest layer upon and around the pons varolii, and in the neighborhood of the upper and basilar surface of the medulla oblongata, and upon and around the crura cerebri. The extravasation extends forward in the pia mater, as far as the extremity of the olfactory bulbs, backwards upon the under surface of the cerebellum to its posterior border. It is much thinner at both places than at mid-base.

On opening the Sylvian fissures, blood is found extravasated in them, more in the right than in the left side, and also along the longitudinal fissure from the optic commissures in the course of the anterior cerebral arteries; this blood is

nearly all black and coagulated, some more recent looking redder and not perfectly coagulated lies on the surface of the larger solid extravasation at mid-base (*i.e.*, on and around the pons varolii.) The membranes cover all this blood, and none of it is effused into the cavity of the arachnoid; the blood is seen to extend down the vertebral canal forming a black envelope around the spinal cord, in the situation of the cerebro-spinal fluid. Having removed the brain, a few detached superficial small extravasations, as if from minute ruptures, are seen on the sides of both hemispheres, especially over the posterior lobes, but not reaching the upper surface of the brain.

On slicing the cerebrum, the punctæ vasculosæ are not large nor numerous; the cerebral substance was not at all congested; both lateral ventricles filled with transparent serum of the color of weak claret and water; a long narrow black coagulum extends from the central cavity of the right lateral ventricle in the course and along the external border of the choroid plexus down into the middle cornu and back into the posterior cornu; the same appearance was found in the left lateral ventricle: the third ventricle is filled with a small black blood clot, which can be traced thence into the fourth ventricle, which cavity is also filled with coagulated blood. In none of the ventricles is there any discernible laceration of the brain substance—the commissures of the third ventricle being intact; no extravasation was found in the substance of the brain anywhere.

On examining the blood vessels of the brain at the base, many of them presented opaque white patches of atheroma. On the left vertebral artery a circumscribed white fusiform dilatation of the vessel is visible, the enlargement is found on slitting up the vessel to be chiefly one of thickening of the coats at this point: a similar one is seen at the anterior part of the basilar, and upon slitting up the basilar an irregular opening was found about the middle of its course and on its right side in the neighborhood of where it gives off transverse branches. We found it difficult to decide if this opening had been made by the accidental cutting off with the scalpel one of these branches; but there appeared to be some pouching of the walls when the vessel is examined from the inside. No sack is found attached to the basilar artery, but that vessel is covered by and occupies about the centre of the thickest extravasation.

On opening the spinal membranes, they were found blackened by extravasated blood within them throughout the entire length of the cord. On removing this, and slitting up the dura mater vertebralis, a thin layer of coagulated black blood was found completely enveloping the cord down to the cauda; no blood was extravasated outside the spinal membranes.

A case of Wasting Palsy, by J. D. Cline, B.A., M.D., Assistant House Surgeon Montreal General Hospital. (Read before the Medico-Chirurgical Society of Montreal.)

Wm. Brownlow, aged 14, was admitted into the Montreal General Hospital under the care of Dr. Roddick on the 6th of March, 1875.

Patient's family history is good. Mother and father and several sisters and brothers living. No history of any similar affection in the family previous to this. Patient has always been somewhat delicate, suffering frequently from bilious attacks. Has had full power and free use of his limbs till the time of the present attack in August, 1872; has never worked hard. In January, 1868, he received a kick from a horse on the forehead, from which injury he was laid up for six months. He was stunned but soon recovered consciousness. Suffered from great pain in his head during his illness. There is a scar and depression in the bone, marking the seat of the injury, directly over the frontal sinus. He recovered perfectly from this, and has never suffered any inconvenience from it since. For the last three years there has been a patch of eruption, herpetic in character, 3 or 4 inches in diam., over the point of his right shoulder. On the third of August, 1872, after exposure in the morning to wet and cold, he had a headache. Next day (Sunday) was very sick, had a bad headache and vomited. On Monday was better, but in going to a brook for some water felt his legs getting weak, and suddenly fell; in a few minutes got up and walked home, stayed in bed that day but at night, in walking across the floor, again fell. Slept well, but in morning could not walk at all. Could stand alone, but on attempting to move, fell. His limbs were very itchy for a day or two. This itchiness was soon replaced by a severe steady pain from his buttocks to his feet, which lasted about six months. The pain was relieved by hot fomentations. Had no pain in his back, and no sense of constriction around the abdomen. His

legs kept getting weaker, and he soon noticed them wasting. He thinks his legs have not grown weaker or smaller since the first year of his illness. His general health has been good throughout; the right leg has been stronger than the left throughout. He insists that he could use his legs as well as ever until after his exposure to cold and wet. There is a patch of rather long hair in the front of his right thigh which has grown since his leg began to grow weak.

Present condition.—The upper part of his trunk and upper extremities are well developed, but his lower extremities are little more than bone. He cannot walk at all. His mode of progression is b his hands, his heels being close together and resting against his buttocks, and held there by a strap passing around the legs and over his neck. In this way he is very active, and can go up and down stairs with considerable ease, proving the strength of his arms and upper part of his trunk. He can stand for a short time with the aid of a table. The only support that he gets from his limbs is from the right one. His appearance when standing is peculiar from the great exaggeration of the lumbo-sacral curve, which is due to atrophy and weakness of the erector-spinal muscles as well as of the gluteal muscles. This is noticeable almost to the same extent when lying. The curvature cannot be reduced by pressure, as if the vertebræ had become moulded into this position which would be assumed from the first in order to throw his centre of gravity as far back as possible. When lying also the limbs are rotated inwards. The measurements of the limb are as follows :—

Around left buttock over groin	15½ in
" right " " "	17 "
Left thigh, 3 in. below trochanter	10½ "
Right " " " "	11½ "
Left thigh, 7 in. " "	9 "
Right " " " "	9¼ "
Left thigh, just above knee	8 "
Right " " " "	8½ "
Calf of left leg at largest part	7½ "
" " right " " "	6½ "
Right and left feet at instep are equal	7½ "

Thus while the right buttock and thigh are larger than the left buttock and thigh, the left leg is larger than the right; yet all the muscles are atrophied. The muscles of the right thigh are in the greatest state of preservation, and retain considerable tonicity, especially those composing the quadriceps extensor. The vastus externus is the largest and hardest of all. All the rest of the muscles of both limbs communicate a dead flabby sensation to the feel. The muscles, flexors and extensors of the left leg, though larger than those of the right, are relatively more atrophied than those of either thigh. The roundness of the buttocks is lost. The spinal muscles are softer than they should be, the right ones more than the left. He cannot stoop nor raise himself from the stooped position without resting his hands on his knees. The abdominal muscles are soft, the left more so than the right. The abdominal walls cannot be kept retracted for any time without fatigue and a sense of soreness. The recti are the tensest when these muscles are contracted. All the movements of the right thigh, flexion, extension, abduction and adduction, are more easily and powerfully performed than those of the left. These movements of the left are done with a flail-like action. It takes considerable force to antagonise the extension of the right limb. Flexion and extension of the right foot and toes are lost entirely while they are feebly retained in the left leg. Fibrillar tremors are noticed on pressure with the finger in all the atrophied muscles, and in those on anterior aspect of thigh without any irritation. He never has and does not now suffer from cramps or twitches in the muscles. The response of the muscles to the galvanic stimulus is proportionate to the degree of preservation of the muscles. On the anterior aspect of right thigh the response is most active. It is less on posterior aspect. On left thigh and leg the galvanic stimulus only produces a slight fibrillar contraction which can be felt, not seen. On the right leg it produces no effect. The right gluteal muscles respond more actively than the left, and the left spinal muscles more actively than the right. The right abdominal respond more actively than the left. Sensation is perfect in the limbs. There is no morbid sensation in the limbs. He occasionally has pain in the abdominal muscles, lasting two or three hours at a time. His limbs become readily cold. His general health is and has been throughout unimpaired. All the organic functions are performed perfectly. He has no difficulty in evacuating his bowels or bladder.

One point of interest in this case is the sudden loss of power independent of any atrophy. The cause seems to have been exposure to wet and cold. I cannot trace any connection between the affection and the kick in the head which he received four years before the onset of the disease.

The Progress of Materia Medica. By A. H. KOLLMYER, M.A., M.D., Professor of Materia Medica and Therapeutics in the University of Bishop's College, and Lecturer on Materia Medica and on Botany in the Montreal College of Pharmacy.

Koumis, or perhaps more correctly *Kumyss*, is a beverage used in the families of the people of Tartary. It resembles sour buttermilk somewhat, without being at all greasy. According to Sir George Simpson it is prepared in a very simple way, from mare's milk, which is merely allowed to stand for some days in a leathern churn to become sour. It is then bottled for use. This drink is more nutritious than exhilarating; but from the same material the Burats and the Kirghez prepare an intoxicating spirit, in which they sometimes indulge to excess. A similar preparation is said to be in use in the Orkney and Shetland Islands (Dunglison's Dictionary.) It can also be equally well prepared from the milk of the ass, as well as from that of the cow; indeed recent clinical observations have appeared to indicate that the latter is preferable to either of the others in a therapeutical point of view.

In oriental countries, Koumis has long been used as a common beverage, and men of note have, from time to time, endeavoured to secure for it a prominent place in our catalogue of remedies, and partially with success. In 1783, John Grieve, physician to the Russian army, proclaimed its invigorating properties; and in 1874, Labadie-Lagrave wrote a very interesting essay on Koumis, and extolled it as a valuable tonic in debility, and especially in phthisis.

Recently the subject has been more thoroughly ventilated through the columns of the *London Lancet*, and a number of cases have been reported where it has apparently proved a successful agent, even after every other means of treatment had failed.

The article used by the English physicians is known as Chalmer's Cow-Koumis, of which there are several qualities described as Nos. 1, 2, and 3, each differing from the other in therapeutical powers.

Dr. Myrtle, of Harrogate, reports four cases in which he gave it a fair trial, and is highly satisfied with the results. (1) In a case of marasmus, where every kind of ordinary food was vomited, and enemas of beef-tea and Champagne had been abandoned as mischievous,—two ounces of No. 2 were taken with pleasure and retained; twelve ounces being consumed each day for a fortnight, that being the only article of diet whatsoever. (2) In a case of inflammatory rheumatism accompanied by gastric irritability, all other remedies having failed, No. 2 was given to the exclusion of all other diet for five days, five pints being taken daily with the happiest results. (3) Was a case of advanced phthisis with diarrhœa and hectic fever: No. 3 acted beneficially, and for weeks formed the chief article of diet, one-third or half new milk being sometimes added to it. (4) Was a case of pyæmia, with vomiting, intense thirst, and a temperature of 105°, all food being rejected: five ounces of Koumis were taken greedily and retained, a pint and a half was consumed in twenty-four hours for six days, when the patient improved; other kinds of food were now gradually added, and the Koumis diminished; the latter alone relieved the intolerable thirst which accompanied the disease.

Cases *one* and *three* died, but they were grateful for the relief they experienced. Two and four recovered, mainly, the Dr. says, from this remedy. It never disagreed, always allayed the thirst, and was easily digested. No. 3, he remarks, if kept too long sours, besides which patients soon tire of it. When fresh he regards it as the more suitable, in all cases of fever and thirst; if these symptoms are absent, however, he prefers No. 2.

Mr. J. Willis Mason, of Regents Park, writes that he has used this remedy for three years. His first case was a lady suffering from paralysis after delivery; she was thin, weak, and anemic, all food was rejected, and there was great prostration; the catheter had to be used daily. When seemingly dying, he continues, the sparkling Koumis was given frequently in small quantities, and its good effects soon became manifest. The dry skin became moist; the catheter was no longer required, the bowels, which had not acted for many days, were naturally relieved, and the paralysis gradually improved: he considers that her life was saved by the Koumis.

A member of his own family is now taking it with marked benefit; she has been long suffering from nervous debility, anorexia, sleeplessness, sudden heats and flushes, and her assimilative powers feeble in the extreme. Ordinary medicines, and residence at the seaside, produced no good results, yet Koumis is bringing about a complete change, and he soon expects to her in see her usual health.

Mr. T. Carter Wigg, of Southminster, Essex, reports a case of heart disease with albuminuria, dropsy, thirst, dyspepsia, and vomiting of all ingesta, which was greatly benefited by Koumis, the albumen diminished while he took it, and strength and the spirits improved wonderfully. He commenced with a pint of No. 1, and gradually increased it to two imperial quarts daily from January, 1873, till the following

August, when he died. The dyspeptic symptoms disappeared in one week from its commencement, and he was enabled to take other kinds of food, but Koumis formed part of his daily diet till his death, and sometimes no other food was taken for days together. This authority considers it as a therapeutic and a dietetic agent invaluable, and admissible in all cases of dyspepsia, wasting diseases, with low assimilative powers, after shock to the system with gastric disturbance, in gastric fever, and perhaps in typhoid. Three facts appear to have been established with regard to Koumis: first, that under the use of one bottle *per diem* there ensues an appreciable augmentation of weight in the body: secondly, that all febrile symptoms disappear; and lastly, that refreshing sleep is induced, all of which will serve to promote recovery, and will assist the *vis medicatrix naturæ* in re-establishing a healthy or normal condition.

The local use of Chloral Hydrate. By CHARLES A. PEABODY, House Surgeon City Hospital, Worcester, Mass., U. S.

DEAR DOCTOR,—You will remember asking me about my experience with the hydrate of chloral, as to its external use. I have jotted down a few notes on the subject which I take much pleasure in sending you.

From all that I can learn I judge that this use of the drug is as yet comparatively limited, but I am of the opinion that it holds a valuable place and is worthy of extended trial.

I began to use chloral externally about ten months ago in Dispensary practice, experimentally. In this I was associated with Dr. E. Warner, also of the Dispensary staff.

I am sorry that I am not able to give you details of cases treated with this agent, but we did not keep a minute record of these cases, trusting rather to our impressions of its general utility to influence our choice of it as a cheap and efficient dressing for Dispensary use. Our purpose, you see, was practical rather than scientific.

It was first tried in a 5 grain solution, on a small unhealthy ulcer of the leg, with most gratifying result; the dirty unhealthy surface of the sore became clean, healthy granulations sprang up, and the ulcer was soon healed.

After this many ulcers of this kind were treated in this way, and with uniform success, they beginning at once to assume a healthy aspect and soon healing. It was found advisable, however, usually to reduce the strength of the solution to 3 grs. to the ounce of water, after the first two or three days, as it seemed to be then too stimulating.

Encouraged by this success we began to extend its use to chronic eczema, one very aggravated case of which I have in mind, which was at once much relieved, and within two weeks almost entirely cured. In this case a three grain solution was used from the first, and no other application whatever was allowed.

I have also found it to be, in varying strength, a most excellent application in cases of offensive perspiration and offensive discharge. It has not the powerful and persistent odor of carbolic acid, and is in many cases to be preferred.

In hospital practice the chloral wash has not disappointed my expectations. I have in mind two cases where its good effects were very marked. The first case was an amputation of the thigh, performed for disease of the limb. The wound was dressed with carbolic acid; the flaps did not unite at all, but the cut surfaces assumed, after a few days, an unhealthy look, and became covered with patches of membranous character. Chloral 4 grs. to the ounce was applied, and the very next day all the membranous patches had disappeared, the wound began to look healthy, and granulations were seen springing up over nearly all its surface.

The other case is in hospital now: the foot was amputated through the metatarsal bones for R. R. injury. The healing process progressed slowly for a while, and then seemed to come to a stand-still, and for two weeks no progress whatever could be detected; but the surface of the wound assumed a dirty, unhealthy appearance. Then a 5 gr. chloral wash was applied with immediate good effect. The next day the wound looked healthy, and the process of repair seems now, after three days' use of the chloral, to be fairly started into activity.

Thus, I have briefly indicated the results upon which I base my very favorable opinion of chloral as an external application. Of course, if used indiscriminately and unskilfully, it may disappoint, but it has its place, and if intelligently and judiciously used will not fail, I think, of giving very general satisfaction.

There are a few points worthy of notice in which chloral in solution compares favorably with carbolic acid; these are as follows:—

1. It does not have the unpleasant smell of carbolic acid, while it is yet a very excellent deodorizer and antiseptic, it will even, in great measure, deodorize carbolic acid itself.

2. It is a much neater and cleaner dressing than the carbolized oil which is so frequently used.

3. It does not stain or rather fix stains, as carbolic acid does; an important consideration where sheets, &c., are of any value.

4. It does not "kill granulations" as carbolic acid does, but stimulates them.

Correspondence:

(For the Canada Medical Record.)

TYPHUS: OR SHIP FEVER.

Mr. Editor.—I apprehend that all young physicians favour the notion that medicine is omnipotent in the treatment of disease generally, of which fatal error, observation and experience thoroughly cure him, if he be a philosopher. He, with becoming contempt for such names as Allopath, Homœopath, Hydropath, &c., and their exclusive systems, does not abandon one figment for another, and flee from the deadly and dangerous system of over drugging, to embrace the less hurtful but effete fiction of infinitesimals. He accepts and adopts, the scientific, safe and successful practice, evolved in the expectant plan of treatment. The experience of a long medical career (my practice having ever been eclectic.) has led me to these principles; the soundness of which I will try to illustrate.

During the year 1847, "Typhus," or so called "ship fever," prevailed extensively in this city and country; carrying death and desolation in its track. The mortality in public hospitals, at the Quarantine Station, and in private practice, was as great as usual under the then ordinary and accepted plan of treatment. One solitary and note-worthy exception, both as to treatment and its results, I am desirous of placing on record, whilst one of the actors in the scene is still on the stage of life. I refer to Dr. Douglas, the Principal in Dr. Douglas' and Racey's "Ship Fever Hospital" at Beauport; where the death rate was the smallest, I have found any record of, during an epidemic.

Having applied to Dr. Douglas for the facts and figures connected with this private hospital. I subjoin the following terse and interesting record, *verbatim et literatim.*

EXTRACT FROM MY PRIVATE JOURNAL.

During the winter and spring of 1847 the accounts of the ravages made by the fever in Ireland, the prospect of a vastly increased emigration to Canada, and in my opinion the certainty of a great amount of cases of typhus, among both the cabin and steerage passengers, induced me and my partner Dr. Racey to establish a private hospital for the treatment of masters of vessels and of cabin passengers, who would naturally object to go into a crowded public hospital, and who would as naturally be refused admission into private houses.

We accordingly leased a large house on the beach at Beauport, and awaited the arrival of the shipping. Our prognostics were fully verified; vessels arrived, crowded with cases of typhus. The hospitals and sheds both at Quebec and at Grosse Isle were crowded with emigrants and seamen, and, as was expected, hotels and private houses very prudently refused to receive cases of virulent contagious fever.

Our private hospital was very soon found to be too small, and we leased in addition the large and commodious dwelling-house connected with the old breweries at Beauport. In these two private hospitals we admitted and treated during the summer one hundred and sixty-five cases of Typhus fever, of whom three died of the fever, and one of paralysis after recovery from the immediate danger of the fever.

Our treatment was extremely simple; on admission the patient was placed in a tepid bath, in which he was thoroughly shampooed and scrubbed with soap and a coarse towel, a staff of excellent and well tried nurses, clean sheets and body linen frequently changed, thorough ventilation, diluent drinks, and occasionally medicine were our modes of treatment.

We were very sparing in the use of drugs, for, though not homœopathists, we decidedly preferred administering them with a spoon, instead of a shovel.

J. DOUGLAS.

Dr. Marsden.

We have here an admirable illustration of the success of the *expectant plan of treatment* nearly thirty years since, which speaks well for the genius and progressive spirit of its promoters. A death rate of less than 2 per cent. (as one of the cases of death could not be said to be from typhus) is almost, if not quite without a parallel.

According to Murchison,* during fourteen and a-half years, at the London Fever Hospital, the mortality from typhus was 20.89, per cent., and ex-

* Charles Murchison: Treatise on Continued Fevers of Great Britain in 1862.

cluding the cases dying within the first twenty-four hours, it was 19.56 per cent.; in 1851, it fell to 8.8; in 1860 it rose to 60 per cent. Out of 18,292 cases; from the different hospital of London, Glasgow, and Edinburgh, there were 3,525 deaths: a mortality of 18.78 per cent.

Speaking of the treatment of typhus, Lebert, one of the latest authorities, says;*

"Absolute cleanliness is to be insisted upon, both with regard to the bed, the body, and the excretions of the patient. The treatment is at the best *expectant*, as in typhoid fever and acute diseases generally, and once more I insist upon the most careful and thorough ventilation, for cold is much less to be feared than bad air. Quiet is to be maintained. As the nursing is exhaustive, experienced nurses should be obtained. Cool drinks in abundance, water, lemonade, carbonic acid water, and every three hours I give milk, broth, or small quantities of weak soup. Cold sponging is rather pleasant than useful. Cold baths at about 65° Farh. may be repeated day and night as often as the temperature rises above 102.2.° Farh.; these are not only well borne, but meet with no opposition from the patient as soon as a few have been taken.

Trousseau almost literally endorses Douglas and Racey's Practice, and says:† "We cannot cure the disease, we cannot even shorten its course; all we can do, is to be on the watch to assist nature. I repeat to you the words of Stokes, of Dublin, that *the disease cures itself*. If you keep up the patient to the fourteenth, nineteenth, or twenty-first day, he will recover. The leading indications are to sustain the vital powers by food suited to the digestive capacity of the individual, by stimulating and tonic beverages, and by wine and spirits measured out in exact quantities."

As to alcoholic stimulants, they formed *no part* of Dr. Douglas' plan of treatment. Food and not drink was his plan of treatment, and has ever been mine also. This fact I mention *pointedly*, in consequence of the fatal abuse of alcoholic stimulants in the treatment of fevers and other diseases at the present day. I shall have no burthen on my conscience "when I go hence to be no more seen of men" on this account; but, in the truthful and eloquent words of Dr. Graves of Dublin, to his pupils: "If you are at a loss for an epitaph to inscribe on my tomb, you may use these words: HE FED FEVERS."

W. Marsden, A.M., M.D., Physician to the Finlay Asylum; Ex-President Col. P. and S. L. Canada; Ex-President Car. Med. Ass. Dom.; Fellow Med. Bot. Soc. London; Cor. Memb. Med. Soc. London; Cor. Fel. Obstetrical Soc. Edin.: Hon. Fel. Medico-Ch. Soc. New York; Cor. Memb. Gynæcological Soc. Boston, &c., &c., &c.

Quebec, Place d'Armes.
St. George's Day, 23rd April, 1875.

*Cyclopædia of the Practice of Medicine, by Ziemssen, vol. 1., page 339; Wood & Co., New York, 1874.

† Trousseau's Clinical Lectures, vol. 1, page 315; Lindsay & Blackiston Philadelphia, 1873.

P.S.—In the foregoing paper I have not touched on the etiology, symptomatology, complications, duration, diagnosis or prognosis of "typhus fever," my object being solely to lay before the medical profession what seems to me to be unparalelled success. The cases treated by Dr. Douglas at Beauport, were cases of true idiopathic "typhus," "typhus petechialis," which is a typically distinct disease from "typhoid fever." Dr. Frantz Glenard, a French physician, who was a prisoner during the Franco-Prussian war,* demonstrated the advantages of hydropathy in the treatment of typhoid and typhus fever, under Dr. Brand of Stetlin, and says:—"Out of 170 cases there was not a single casualty," but he does not say there were cases of petechical typhus.

W. M.

* "Practical Guide to Health, &c., by F. Arnold Lees," F.R.S., L.R.C.P.L., M.R.C.S., Eng., London, 1874.

Progress of Medical Science.

THE MANAGEMENT OF HEAD-LAST LABORS.

BY WILLIAM GOODELL, M.D.,

Clinical Professor of the Diseases of Women and Children in the Hospital of the University of Pennsylvania, President of the Philadelphia County Medical Society, etc.

Labors in which the head is born last are the bugbears of the physician; and well they may be, for Atropos, and not Lucina, presides over them. The tediousness of the labor, the probable ascent and possible fracture of the arms, the impaction of the head, the peril in which the child's life is placed, and the very disagreeable chance of breaking the neck, or, indeed, of leaving the head behind, present in their aggregate a very unwelcome group of complications. The chief dread of the physician is, however, the death of the child, and the length of the labor.

The causes of fœtal death in this form of labor are manifold. But, what is worse, they accumulate in proportion as labor advances, and in the end act in concert. The first, in regard to time, comes from the irregularity of the presenting part, and consists in the escape of all the liquor amnii as soon as the bag of water breaks. The next is the delay attending the expulsive stage. The other causes lie in ambush until the breech is born, and then combine with the former in making a deadly assault upon the child's life. These include the compression of the cord and placenta, the partial detachment of the latter, the embarrassment to the utero-placental circulation from the lessened size of the womb, and, finally, what is not uncommon, the long pauses between the pains. But there is yet another danger, not so generally known, which is, perhaps, the most common cause of death before delivery, and of feeble vitality or of death after delivery. When the placental circulation begins to flag, the child, unless at once delivered, keenly craves oxygen. Urged on by this air-hunger, it makes premature respiratory movements. But since air cannot gain excess to its nostrils, the child draws into its lungs the bloody and mucous discharges of the maternal passages. These foreign bodies so plug up the bronchia that the child is very liable to die either at

once from asphyxia, or within a few days after birth, from lobular pneumonia,—viz., atelectasis pulmonum.

From these causes the fœtal mortality in head-last labors is large; so large as to be an opprobrium to the profession. From the statistics of fourteen of the most skillful of British obstetricians, Churchill shows that they lost very nearly one child in every three. In ordinary breech-cases Hodge rates the average of still-births at thirty-three per cent. According to MM. Capuron and Cazeaux, in the more difficult cases from sixty-six to seventy-five per cent. perish. Said the late George T. Elliot (*Obstetric Clinic*, p. 347), "I always regret to meet a pelvic presentation in my practice, for fear that the child may not be born alive." In more or less vivid language, the testimony of this very distinguished obstetrician is sustained by all the authors of our text-books. Since, now, these statistics represent the experience of the most skilled specialists, of eminent teachers, of men who, by a large private and hospital practice, reached an unrivalled dexterity in their branch of the profession, it stands to reason that in the practice of the profession at large the average number of head-last still-births must be very much higher. For this mortality fifty per cent. is, I think, a very low estimate. But, mind, in the above statistics no account whatever has been taken of post-partum deaths from enfeebled vitality or atelectasis pulmonum, so common in the infant after this kind of labor. This loss in itself is so large that it must not be overlooked. Since, therefore, pelvic presentations occur about once in every fifty cases of labor, it follows that in every thousand labors a practitioner attends he will, from this cause alone, meet with at least ten still-births and several deaths within a few days after birth.

In view of these facts, the objects of this paper will be to search out the best means for shortening the duration of this kind of labor, for preventing the death of the child, and, as a conjoint consequence, for giving the physician a greater confidence at the bedside of his patient. These ends can, in my opinion, be best attained by classifying pelvic presentations under the head of preternatural labors. For, since a name misleads, if we include them under natural labors, as is customary, we shall be less likely to render the often-needed help.

For shortening the first stage of head-last labors I have found nothing equal to the hydrate of chloral. Given every half hour in doses of from ten to fifteen grains it promptly relaxes the most rigid cervix. In head-first labors the early rupture of the membranes usually hastens on the process of dilatation; but in head-last labors this means should never be employed. For obvious reasons it is of vital importance to keep the membranes intact until the os is fully and wholly open. If after the completion of the first stage of labor there is much delay in the descent of the breech, no better directions can be observed than those given by Barnes. The chest, shoulders, arms, legs, and sometimes the head of the child, all act conjointly in forming the base of a wedge, whose apex is represented by the breech. The apex engages, but the base being more bulky than the brim or the lower segment of the womb, forbids further descent. By bringing down one leg, and preferably the one nearer to the pubic arch, this wedge is broken up, and the further progress of the labor placed under the control of the physician. He should, however, make no further traction on this leg unless it is loudly called for, and then only during a pain, lest the arms should become extended. From a pretty large experience, I can confidently recommend this operation in all cases attended with delay. Nor should it be for a moment postponed after the heart-beats of the child become feeble. When the breech has descended so low as to preclude a resort to this operation, then, of course, the canonical methods of traction on the groins may be employed. But I really cannot understand why the gentle use of the forceps on the pelvis of the child is deemed more hurtful than that of the blunt hook in its groin. The pain that delivers the breech should be supplemented by traction or by supra-pubic propulsion, so that the arms and shoulders may also, if possible, be expelled at the same time. A loop of the cord must then be drawn down, so that its spirally-coiled vessels may not be constringed by being straightened out.

The breech being born, the uterine and abdominal muscles are in a great measure shorn of their expulsive power, and that at a time when most needed. The life of the child being now imperilled, its rescue is the next important consideration. From the mode of its death,—viz., from asphyxia,—it is plain that a prompt delivery is the only life-saving factor. Delay here means death. One of five minutes time may be one minute too much. Hence there must be no waiting for the manifestation of such danger signals as feeble pulsations in cord, or convulsive jerks of the limbs; no loitering for a pain to begin, for the arms to come down, or for the head to become moulded. The proverb *quieta non movera* has here no application whatever. The physician should urge the woman to bear down; but if these efforts prove unavailing, he must hasten to bring down the arms, and at once proceed to the forcible extraction of the child. I say this advisedly, for, although our text-books teach otherwise, I am sure that in nine-tenths of breech-labors it is inaction and not traction that kills the child. Fettered by sentimental conservatism, or by an allegiance to traditional technics, the physician folds his arms, when, had he as many hands as a Hindoo deity, they should all be nimbly at work. Never shall I cease to regret my first breech-case of labor, in which, fearful of breaking the cannons of obstetrics and the child's neck as well, I let the only child its mother ever bore die before my eyes. So needful to the welfare of the child do I deem its speedy delivery to be, that were an arm so impacted as not to be safely released without a probably fatal delay, I should not hesitate to break it, or, at least, to run the risk of breaking it. Nor do I stand alone in advocating this heroic treatment. It is upheld by such excellent authorities as Braun and Schroder.

In such emergencies, however, as M'Clintock and Bouchut have pointed out, and as I can bear witness, it is usually the clavicle that snaps and not the humerus. In those rarer cases in which the humerus is broken, the fracture is often partial,—viz., of the green-stick kind. By the aid of thin pasteboard splints and of straps of adhesive plaster, such injuries heal so readily and with so little deformity that they should weigh as trifles when life is at stake. In cases of pelves known to be ample, I can conceive of its being perfectly justifiable to follow Giffard's and Froriep's plan of dragging the head through with the impacted arm extended above, rather than that of losing golden minutes in liberating it.

Supposing, then, that the trunk and arms are born, and the head, gripped by the brim, alone remains for extraction, is the forceps to be resorted to? I answer, "No;" for, although this instrument is handy enough when the head is at or near the outlet, in high operations its application is attended with so many difficulties that too much precious time is lost. The problem being to get the child's head out as soon as possible, the only factors for its solution are limited to supra-pubic pressure upon the head, and to traction on the body. But the former is not by itself trustworthy; while, as to the latter, the great majority of physicians labor under the idea that the neck of an infant cannot bear much traction. "Would you be willing," they triumphantly ask, "to lift up by its head an infant just dressed and lying in the nurse's lap?" "Would you," it may be retorted, "be willing to make as much traction upon the lower jaw of a newborn child as you have just made in flexing its head? or would you compress its head with the forceps as viciously as you did a few minutes ago?" For obvious reasons, I object very decidedly to the nursery game of lifting a child by its ears to make it "see London." But, were one of my children drowning, I should not hesitate to grapple for its naked body with a boat hook, or to pull it out of the water by the hair, by the ear, by the nose, or by any prehensible portion of its body, regardless of any local injury it might sustain. Nay, were its limbs like those of canny James Lambert (Charles Reade's aquatic hero), weighted down by the death grips of some twenty other drowning persons, I should run the risk of breaking its neck in my frantic efforts to raise its chin above water-level. Now, a child presenting by the breech is in precisely this plight. It is under water, weighted down by the grip of the bony canal; it is drowning; and to any one drowning help must be sped,—help at all hazards.

The ancient Romans recognized this danger, and, as I believe, applied the only remedy for it. According to Pliny (*Historia Naturalis*, lib. vii. cap. viii.), they called all persons born in this manner, Agrippas. This name still puzzles etymologists; Aulus Gellius and Pliny himself derive it from *ægre partus*,—viz., *born with difficulty*,—but this is stoutly contested by others. With diffidence, I would suggest it to be either a derivative from *arripio*,—to snatch away; to take by force,—or a compound from the Greek word Γρὺψ—a griffin or fabled winged monster with four sets of talons.—from which our own word *grip* is derived. Thus interpreted the name Agrippa is descriptive of the mode of birth, and means one snatched away, or taken away by force. But such a mode of delivery necessarily hinges on the tensile strength of an infant's neck, and this will, therefore, next engage our attention.

The adult neck is strong enough to bear the immense strain of the gallows-drop without sustaining a luxation of the atlas on the axis. Criminals executed in this manner usually die from suffocation. What holds good with adults holds good relatively with children; and it is wonderful what a strain their necks will safely bear. From experiments made adversely to version in narrow pelves, and, therefore, the less likely to overrate the tensile strength of the fœtal neck, Matthews Duncan concludes (*British Medical Journal*, December 19,1874, p. 763) that the neck of a dead child can, at term, sustain the average weight of one hundred and five pounds before the spinal column gives away, and one of one hundred and twenty pounds before the body parts from the head. These averages are, I think, under-estimated rather than over-estimated, for out of the four fœtuses experimented upon, two of them weighed under six pounds; and the other two, weighing, respectively, seven pounds and seven ounces and eight pounds and fifteen ounces, sustained each weights of one hundred and forty-one pounds and one hundred and thirty-six pounds before decapitation took place.

In a difficult breech-case to which Julin was called in long after the child was dead, he delivered the woman, after employing for twenty minutes a steady traction-force of one hundred and two pounds, made by a noose thrown around the neck of the child (Traité complet d'Accouchements, p. 1062). In conducting a series of experiments to determine the value of version in narrow pelves, he delivered with unbroken necks (p. 1059) the heads of three dead infants after putting on their feet a steady force respectively, of one hundred and twenty-five, one hundred and forty-five, and one hundred and forty-eight pounds. But it must not be forgotten that these experiments were made upon dead children, and that the tensile strength of a living child's neck is presumptively greater. Again Joulin also proved with his dynamometer that, without any purchase for the feet, and by pulling merely with the muscles of the arms, a robust man can exert on the forceps a maximum weight of one hundred and thirteen pounds. From analogous experiments made by Delore, a force of only one hundred pounds was reached (p. 1065).

Now, with the woman lying on her back and myself standing in a stooping posture before her, I have repeatedly delivered living and lusty children by putting on their necks all of my weight possible in that position. By grasping a cane in an analogous manner, and forcing it down on Fairbanks's scales, I find that one can for thirty seconds exert a steady

downward pressure of about ten pounds more than half the weight of one's body. That is to say, I, who weigh one hundred and ninety pounds, can, for a very short time, exert a steady power of one hundred and five pounds. By throwing my weight suddenly upon the cane in quick jerks, I find that I can tip the beam at one hundred and thirty pounds; and this great weight I certainly have on several occasions thrown on infants' necks. Yet I can confidently say that, notwithstanding this severe strain upon the spinal column, I have broken it but once, and have never failed to save the child whenever its birth was completed soon enough. Should much disproportion exist between the size of the head and the capacity of the brim, it is emphatically a case of "neck or nothing;" and the operator must not shrink from promptly using very great force,—a force, indeed, only just short of detruncation. But I do not believe it possible for a physician even to break the neck of a mature child, much less to behead it, if he applies a steady traction-force in the manner above described,—viz., by pushing the neck and body of the child backward and downward, just as he makes downward pressure on the lock of the forceps. Not even when the infant is immature should the efforts of the physician be hampered by the fear of sudden decollation. For the spinal column always yields before the skin and muscles part, and the consequent jerk and the immediate elongation of the neck will give timely warning when to useless force, or, the child being now dead, to end the labor by craniotomy or cephalotripsy. Far better is it, in these emergencies, to kill in attempting to save than to kill by cowardly inaction.

I once saw the strength of the child's neck put to a crucial test, and the result amazed me. I frankly confess that had I not been an eye-witness I should have been a doubter. It was a case of a primipara with flat pelvis and a large but putrid fœtus. After craniotomy had been performed, a further obstruction to the delivery lay in the bloated chest and belly. Before this second complication was recognized, each one of the four physicians present, including myself, took his turn at the forceps. From a natural rivalry, the traction thus necessarily made upon the neck of the fœtus by three of us in succession was no child's play. But that made by the fourth gentleman, a distinguished member of this Society, exhibited so much power and originality that I shall here describe it. He turned the woman over on her side, brought her hips to the edge of the bed, and applied Hodge's forceps. He next carefully tucked a sheet around the lock of the instrument, removed his shoes, sat in a chair, and placed one foot across the perineum, the other across the vulva. He then grasped the handles, straightened out his body, and pulled with all his might and main, making every muscle in his body quiver with the effort. Yet, in spite of the enormous strain brought to bear upon the neck of the child, it was simply lengthened out, but not broken. The cranial stump was brought down to the outlet, but it literally sprang back at every intermission of the traction. This behavior of the head, or rather of what was left of it, was in fact the first clue that led to the discovery of the obstructive size of the child's body.

Although these facts show the wonderful tensile strength of the fœtal neck, yet, in order to extract the head with a minimum of traction-force, it is of great importance to exert the power to the best mechanical advantage, and to grade it to the resistance. This brings me to the mode of making traction; but in order to understand the subject fully it will be first necessary to study the configuration of the fœtal head, and the mechanism of its extraction. In so far as breech-labors are concerned, the fœtal head is made up of the frustums of two cones meeting in one common base. One cone is that portion of the head behind the biparietal circumference; the other consists of that portion in front of the same plane. I shall distinguish them by the names of the "fore cone" and the "hind cone." Looking from below upwards,—viz., from the base to the vault,—the head is also wedge-shaped. This I shall call the "wedge." Now, it has been found over and over again, except in those rarecases of uniformlycontractedpelvis, that, when an infant is pulled through the brim by the feet, the shorter diameter of the fore cone—viz., the bitemporal diameter—tend to pass directly between the sacral promontory and the pubic symphysis, and the hind cone, together with the large biparietal diameter,—viz., the base common to both cones,—to pass to one or the other side of the two osseous points. The shorter the conjugate diameter the more inflexible is this law. The head thus makes its first movement of descent in an unflexed condition, but there is usually plenty of room in the bisiliac diameter for the occipito-frontal diameter to pass. Again, the distance measured from the chin to the nipped points of the head—viz., the ends of the bitemporal diameter—being less than the distance from the occipital protuberance to the same points, the chin can hardly ever catch over the iliac edges of the brim. Theoretically, the exteusion of the head by the arrest of the chin over any point of the brim is a possible accident, but practically its occurrence is so rare that it may be left out of consideration. Mauriceau saw but one case; in many thousand labors Madame Lachapelle did not meet with one; nor did Velpeau, who, however, notes one occurring in the practice of Leroux, and another in that of Eckardt. Joulin states (p. 559) that he not only never met with this complication, but that he in vain repeatedly tried to bring it about by forcing the back of the child into the hollow of the sacrum. The cause of this almost invariable adjustment of the occipito-frontal diameter to the transverse diameter of the pelvis is the round and hard surface of the occiput, which glides off to one side of the sloping promontory. The head, therefore, passes the brim in the transverse position and in an unflexed condition. But when it is brought into relation with new pelvic diameters, the greater friction of the broader and harder surface of the hind cone brings about the movements of flexion and rotation.

Granting these premises, it follows that the occipital protuberance is far more likely than the chin to hook over the edge of the brim, and that flexion is

an undesirable movement while the head is passing through the conjugate. The rule, therefore, to make flexion at this stage of labor, by passing two fingers into the mouth or on each side of the nose, is not only a piece of meddlesome midwifery, but it entails the loss of much traction-power, and is a sheer waste of very precious time.

According as the pelvis is of average size or is narrowed in its conjugate diameter, I adopt two modes of extracting the wedge-shaped head; but the one that I shall first describe is the one that I invariably first employ. The woman may retain the lateral position, but, for reasons to be hereafter given, I much prefer her to lie on her back, with her hips brought to the edge of the bed. In a brim narrowed in its conjugate, the promontory is usually sharp and projecting. The sacral side of the after-coming head tends, therefore, to be bent in by this osseous point and to become fixed by it. Hence the extrication of the head as a whole can take place only when its pubic side revolves around the promontory and glides down over the smooth under surface of the pubic symphysis. Bearing this fact in mind, it is important that the sacral side of the head should become fixed at a point as high up as possible,—viz., as near to its vault as possible. To gain this end, the physician, after grasping the nape of the neck with one hand, and the ankles with the other, should make his first movement of traction in the axis of the outlet, for then the pubic side of the head will be tilted away from the inlet, while the sacral side will proportionately descend over the edge of the promontory, and affront the brim. This canting of the head can be very materially aided by an intelligent assistant, who will make very firm backward and downward pressure with both hands, through the now flaccid abdominal wall, upon the vault of the head. By this manœuvre the promontory is made to indent the sacral side of the head at a point still higher up, and nearer to the vault, hence the arm of the lever, measured by a line drawn from the base of the skull to this fixed point, will be correspondingly lengthened,—a mechanical advantage not to be overlooked. If now, *without for a moment relaxing, but rather increasing, the original traction-force*, its direction be reversed, and the body of the child be swept backwards upon the coccyx, the neck being also forced downward and backward into the hollow of the sacrum, the sacral side of the child's head becomes deeply bent in, and the pubic side is made to revolve around the promontory and descend with the least expenditure of traction-force. In other words, the head is warped around the promontory. Should the neck be so short, or the pelvis so deep, that the physician cannot well grasp the nape, he may loop a thin muslin sling over it, and draw on the ends, which should meet in front of the chest.

Whenever this mode of traction fails to release the head from the grip of the brim, or the difficulty lies rather in the size of the head than in the narrowness of the pelvis, I have, on several occasions, succeeded by a pump-handle movement. Made with a steady and an unremitting traction, it will cause each side of the wedge-shaped head to descend alternately. The range of oscillation should extend from the axis of the outlet anteriorly, to very firm pressure on the coccyx posteriorly. With a sharply-defined promontory this up-and-down movement does not ordinarily succeed, unless the parietal bone has been broken in or greatly depressed as a whole, and not simply indented. Otherwise, the sacral side of the head is held fast, and the pubic side will then librate around the indented, and therefore fixed, point, merely rising and falling, without any onward progress whatever. But in the breech-cases ordinarily met with, in which the sacro-vertebral angle is usually round and knobby, or in those of large heads and average pelves, this pump-handle movement will be found a very precious expedient.

To either method supra-pubic propulsion by the hands of an assistant is a very important adjuvant. It can with safety be made to any extent, and will greatly lessen the amount of traction-force necessary for delivery. As soon as the head has passed the brim, which it does usually with a distinct jerk flexion and rotation spontaneously take place, and the line of traction must then be changed to that of the outlet. When finally the head is about to clear the bony canal, the body of the child should be raised up in front of the pubes, according to Hodge's plan, and traction made directly upward in a line at a right angle to the mother's body. This final method of traction augments the flexion of the head, and obviates the necessity for putting two fingers into the child's mouth. When the face presses on the soft parts, two fingers passed up into the rectum will still further increase the flexion of the head, and will serve to protect the perineum from injury.

To sum up, then,—the mechanism of a forced delivery consists in propulsion and three movements of unremitting traction. That failing in propulsion and a pump-handle movement of traction. Of the three movements of traction, the first is made in the axis of the outlet, the second in the axis of the inlet, and the third in the curve of the obstetric canal.

I have been somewhat minute in these directions, because physicians, by continuing the backward traction long after the head has slipped past the brim, sometimes fail to deliver, and because by this faulty traction the chin hooks over the perineum and badly tears it. One word with regard to the perineum: In head-first labors due time can generally be given for its complete dilatation; but in head-last labors even seconds are too precious to be thus wasted. If, therefore, air cannot be communicated to the mouth or to the nostrils of the child through the gutter made by the physician's fingers, he must disregard the consequences to the mother and forcibly deliver by traction, or, this failing, by the forceps. Should the perineum be torn, as it usually will be in a fat primipara, a perfect union of the wound may be confidently looked for from the immediate introduction of wire sutures.

In both the previously-given modes of extraction I prefer the woman to be on her back, with her hips brought slightly over the edge of the bedstead, and each knee supported by an assistant. My reasons for this position in preference to the lateral one are:

that the propulsive pressure is then more efficiently given either by the hands of a third assistant, or by the free hands of the two assistants; that since the power thus applied resolves itself into a question of weight and not of strength, very few physicians, while bending forward in front of the woman thus placed, can exert a steady force of one hundred pounds upon the neck of the child; and, finally, that the upper hand of the physician can then force the neck into the hollow of the sacrum and thus make the line of traction somewhat behind the axis of the superior strait.

In conclusion, let me say that, since adjusting all sentimental considerations for the child's neck to a sliding scale of pounds avoirdupois, and since adopting the foregoing methods of delivery, I approach a case of head-last labor with an assurance of success such as I never had before, and such as I wish to impart to those who lose heart the moment the examining finger discovers that the head is not the presenting part.—*Philadelphia Medical Times.*

DR CHARPENTIER ON PLACENTA PRÆVIA.

By A. V. Macan, M.B., M. Ch., Dubl.;

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In the *Archives de Tocologie* for 1874 will be found a series of papers on puerperal hæmorrhages by Dr. Charpentier. Of these the most interesting are those on placenta prævia, both on account of the importance of this complication, and also, because the treatment adopted by the author differs considerably from that recommended by some of the most recent English authorities on the subject.

We regret that want of space prevents us giving more than a short abstract of some of the more important points dwelt on by Dr. Charpentier.

It was not till the year 1685 that the fact of the placenta being inserted over the os was discovered by Portal. Before his time the presentation of the placenta at the os at the commencement of labour was thought to be due to its becoming detached from its insertion at the fundus, and subsequently sliding down so as to cover the os. From the time of Portal up to the present, many explanations have been given to account for its abnormal insertion. That adopted by Schröder, one of the latest writers on obstetrics, is, that it is caused by enlargement of the cavity of the uterus, accompanied by an unnaturally smooth condition of its mucous membrane. This would, he thinks, account for its more frequent occurrence in multiparæ, in whom the cavity of the uterus is enlarged and the rugæ of the mucous membrane often obliterated by previous leucorrhœa.

Authors are as yet not quite agreed as to the cause of the hæmorrhage which so frequently appears at the seventh month, and recurs at intervals up to the time of labour. The old explanation of this was, that it was caused by the taking up of the cervix. M. Holz has, however, shown that the cervix remains intact up to within a few weeks, in some cases even till within a few days, of full time. This theory also fails to account for its occurring, as it often does, when the os is quite closed. The most recent explanation is, that during the latter months of pregnancy the lower segment of the uterus, in addition to its increased growth, is subjected to a mechanical distension with which the growth of the placenta cannot keep pace. Hence you have partial separation and consequent hæmorrhage. Once labour sets in, the hæmorrhage is of course caused by the dilatation of the os.

How, then, can we account for the fact that in some rare cases there is no hæmorrhage at the time of labour? Simpson explained it by saying that the hæmorrhage came from the placenta, and that if the placenta was wholly detached the hæmorrhage must cease. The now well-known explanation of Dr. Robert Barnes is, that when all that portion of the placenta which is attached to the "cervical zone" has become detached, the hæmorrhage will at once cease, provided there is uterine action. For when this has taken place there is no necessity for any more of the placenta to become detached to allow the child to pass, and there is therefore no fresh hæmorrhage. While at the same time the vessels already laid open by the detachment of the placenta are closed by the expansion or shrinking of the os. We regret that in noticing this theory the author has thought fit to accuse Dr. Barnes of having borrowed it from M. Legroux. The following facts may tend to put the matter in its true light. Dr. Barnes first published this theory in the *Lancet* as long ago as the year 1847, it was the subject of his Lettsomian Lectures in the year 1857, and was well known in England before the publication of his book on "Obstetric Operations," in 1871. M. Legroux first published his views in the *Archives de Médecine* for 1865.

If attention be paid to the following points, the diagnosis can be made without much difficulty. First, the time at which the hæmorrhage first makes its appearance, viz., from the seventh to the eighth month, in some rare cases as early as the sixth month; the fact that it comes on suddenly, without any known cause, and stops as suddenly; and that it reappears at uncertain intervals, but in increasing quantities, up to the time of labour. Second, the absence of ballottement, the thick mass of the placenta being interposed between the finger and the fœtal presentation. Gendrin has even noticed a pulsation through the cervix not synchronous with the maternal pulse. Dr. Charpentier thinks that M. Depaul has shown conclusively that we cannot place the least dependence on auscultation as an aid to diagnosis.

Naeglé was of opinion that the less complete the presentation of the placenta, the more advanced the pregnancy would be before the hæmorrhage appeared, and that in cases where only a small portion of the placenta presents with its margin at the os, there may be no sign of hæmorrhage till labour sets in. The hæmorrhage in cases of placenta prævia is always external; it takes place during the uterine diastole, but is expelled during the systole, and if the latter were continuous it could hardly take place at all.

The fœtal mortality increases according as the

placental presentation is more or less complete, the average mortality being about 3 in 5. The maternal mortality given by the older obstetricians was as high as 1 in 3. Dr. Charpentier thinks that an experienced practitioner can almost always save the life of his patient.

The question of treatment is considered at great length. But in mentioning the different plans of treatment that have been proposed, the author confounds in a curious manner that recommended in some cases by Sir J. Y. Simpson, with that proposed by Dr. Robert Barnes. Thus at p. 420 he says these methods are "artificial delivery, ergot, the plug, rupture of the membranes, and the plan recommended by Simpson, Barnes and the English, of detaching the placenta and extracting it before the birth of the child."

The first, or artificial delivery, is a most dangerous method only suited to most urgent cases. The rupture of the membranes is very good treatment, provided the os is partially dilated. It is hard to do when the presentation is complete. The use of ergot is a powerful auxiliary, but it increases greatly the danger to the child, and is contra-indicated in contraction of the pelvis, organic disease of the uterus, and malpresentation.

The author looks upon the plug as the treatment *par excellence*. It requires to be applied skilfully to be of any great use. Charpie or tow are the best materials with which to plug, and if properly applied, the author considers such a plug superior to any description of India rubber bag which can be introduced into the uterus and inflated. The great point to attend to when plugging is to introduce enough of the charpie or tow, as much as a pound and a half of the former material being sometimes necessary. The bladder and rectum should both be emptied before we proceed to plug. Some practitioners dip the first pledget in a solution of perchloride of iron. This is not necessary.

The charpie should be rolled into small balls, the first 20 or 30 of which should have a piece of thread attached. Before being introduced they should be well covered with cerate. This renders a speculum unnecessary.

The author lays great stress on packing tightly the anterior and posterior cul de sac, but especially the latter. The success of the operation depends to a great extent on this being well done. The vagina itself should be filled with the small pledges, until they appear externally. Then you apply a handful or more of dry charpie, and over that three or four compresses, the whole being fixed by a T bandage. If this plug be well applied there can be no hæmorrhage. If the charpie at the vulva become moist it is a proof that the plug is badly applied, and it should be removed at once and reapplied. To be of much service the plug should be left in from 12 to 24 hours.

The author then examines the following objections that have been brought against the plug:

1st. That it only changes external hæmorrhage into internal.

2nd. That it tends to bring on premature labour.

3rd. That its application as well as its presence in the vagina is very painful, and prevents the rectum and bladder being emptied.

As to the first: if the membranes are still unruptured and the plug properly applied, internal hæmorrhage is impossible. If the membranes are ruptured, the chance of internal hæmorrhage is increased, and we must apply a bandage to the abdomen, and be ready, should the uterus increase in size, at once to remove the plug, and finish the labour by other means. The second is of no great weight, for the hæmorrhage generally takes place after the child is viable, and in any case we have no choice. The third can be obviated by passing a catheter, and seeing that the rectum is empty, before applying the plug.

Dr. Charpentier urges many objections against the plan proposed by M. Pajot, and practised extensively of late by M. Bailly, viz., of leaving the plug *in situ* till it is expelled by the uterine effort, pressing it back again into the vagina with the hand, during the intervals between the pains. The most serious of these is, the great fætal mortality, which even the defenders of this plan acknowledge it entails. Again, it is not applicable in cases of malpresentation, which are common, and it requires powerful uterine action, which is rare, in cases of placenta prævia.

If, on removing the plug at the end of twenty-four hours, it is found that there is no uterine action and that the hæmorrhage has ceased, we need not reintroduce it. If there is uterine action, and the os is still very small, we should again introduce it, but not allow it to remain so long as before, at the same time giving small doses of ergot. At the end of from eight to twelve hours, we should again remove it, and proceed to puncture the membranes, provided the hæmorrhage is but slight; if, on the contrary, it is still considerable, we must again introduce the plug, and wait till the os is sufficiently dilated to allow of operative interference.

This may be either manual or instrumental, the choice being determined by the usual conditions, such as presentation, prolapse of the cord, &c., &c. Dr. Charpentier does not look with much favour on plugging by means of India rubber dilators.

The author then briefly reviews the method first proposed by Radford, and usually known as Simpson's method, evidently under the impression that the latter advised its being carried out in every case of placenta prævia. He, of course, condemns it. He then notices the method proposed by Cohen for converting a complete presentation into a partial one, by detaching the smaller segment of the placenta from its uterine attachment, rupturing the membranes freely along the edge of the detached portion, and allowing it to hang down into the vagina, and thus no longer cause any obstruction to the delivery.—*Irish Hospital Gazette.*

ON EPIDEMIC SCARLATINA.

By William Moore, M.D., The "King's" Professor Practice of Medicine; Professor of Clinical Medicine and Physician to Sir P. Dun's Hospital and to the Institution for Diseases of Children, etc.

CASES OF SCARLATINA ANGINOSA—MALIGNA—"GLOSSITIS" COMPLICATING SCARLATINA—TREATMENT.

Gentlemen,—It occurred to me that there is a subject of immediate and great practical importance which I should not pass over in this present course of lectures. I refer to the presence amongst us of epidemic scarlatina. We have had scarlatina epidemic amongst us I may say for the last year. It was particularly fatal in the months of September, October, November, and December, and though it abated somewhat in the months of January and February, my own experience would tell me that in all probability we shall have another burst, or a revival of this exanthem in the month of March, because of all the months in the year I believe March is the most obnoxious, if I may use the expression, to scarlatina. I do not intend to take up your time with the hygiene or the etiology of this disease, but I propose bringing before you some typical cases of the present epidemic. I leave what may be called the simple cases of scarlatina, many of which are so benign that without treatment, and with common caution on the part of these patients with regard to avoiding cold, they will get well without complications of any kind. I exclude that type altogether, and take you to the more severe forms of scarlatina, which are called the *Anginose* and *malignant*.

I will first take a typical case of the "Anginose" form of the disease.

Margaret B——, aged 12 years, was seized on the 18th November last with shivering, headache, pains in the back, suffusion of the eyes and soar throat, and on the 19th was admitted into Sir Patrick Dun's Hospital. On admission her face, neck, and arms were covered with an eruption which she said came out on the previous day, and which was of a deep purple colour. Her throat was red and swollen, and her tongue thickly furred. Her pulse on admission was 160, and her temp. 105°·2 Fahr. Now these are the most important points for you to attend to, the quickness of the pulse and the height of the temperature. On visiting her the following day I found that she had been very delirious during the night: her respiration was hurried, and she complained of difficulty in swallowing; the eyes were very suffused, and there was sordes on the teeth. I recommended hot water inhalations to be used continuously, and she was ordered five grains of chlorate of potash three times a day. On the second day of her admission her pulse was 130 in the morning, with a temp. of 104°.7. On the following day, the third, I found that she had been very delirious during the night, and that she had vomited. The eruption was now all over her body, of a livid colour: her tongue was red and dry, pupils dilated, pulse 150, temp. 105°·7. The inhalations and the chlorate of potash were continued, and she was getting as much beef tea and milk as we could induce her to take. On the following day she was so restless and violently delirious that she had to be held in bed. The eruption was still of a livid hue; her pulse was 140, and her temp. 103°. On account of the sleeplessness she was ordered eight grains of bromide of potassium to be taken at bedtime. On the following day I found that she had been very delirious during the night, and constantly trying to get out of bed. She would not protrude her tongue. The eruption was disappearing from the upper extremities, and was losing its livid colour somewhat. Her pulse was 120, and temp. 102°·6. The bromide of potassium was repeated at bedtime. The following day I found that she had slept well, and that there had been less delirium during the night; the tongue was brown and dry, and the eruption fading, but the left parotid gland was very much swollen: her pulse was 140, and her temp. 104°·3.

The next day, the 25th November, she had slept well, and there was no delirium; the parotid and submaxillary glands were very much enlarged; her pulse was 140, and temp. 102°·8 in the morning, her evening temp. being 104°·6. On the 26th November the report was that she had slept well, that there was no delirium, and that all the symptoms were improved, but she complained of pains in her bones and pain over the submaxillary glands. Her neck felt brawny and was generally enlarged, and there was a sanious discharge from the nose. Her pulse was 136, and morning temperature 102°·3. On the 27th of November, the eighth day after admission, she had slept well but was again slightly delirious. In the morning her pulse was 150, and temp. 102°·8; and in the evening her temp. was 104°·1 She was now ordered one ounce of brandy, to be taken in milk during the twenty-four hours, with beef tea *ad libitum*. On the 28th I found that there had been some delirium—a quiet kind of passive delirium—during the night: her pulse was 128, and her evening temp. 105°·1. The brandy and general treatment were continued. On the 30th November I increased the brandy to two ounces, and on the 2nd December, in addition to the two ounces of brandy, ten drops of the syrup of iodide of iron three times day. Matter formed in the left submaxillary space, which was opened by Dr. Bennett on the 5th December. The same treatment was continued, and on the 11th December her temp. was normal, and did not again rise above 98°·8 during her stay in Hospital, which she left on the 19th December, having made a complete recovery.

Now this case is an example of Scarlatina "Anginosa." It is a type of a very severe form of scarlatina. Let us just look at the symptoms that occurred. In the first place, the temp. at the end of twenty-four hours was 105°. Now a temp. of 105° at the start of any fever is of very serious import: it is a very unfavourable omen. In this case we had a temp. of 105° and a pulse of 160 at the end of twenty-four hours. Now I maintain that there is no disease that we know of in which you could have within the same time such a range of pulse and temperature. Hence it is that in a great many obscure cases of scarlatina, where you have an ill-defined

eruption, and where doubt exists whether scarlatina is present or not, if you have such a sudden accession of temp. and pulse as I have shown you, even in the absence of eruption, I believe you would be generally right in pronouncing the case to be scarlatina: for I know of no disease that within the same time will run the pulse and the temp. up in this sudden way. You have no such analogous rise of pulse and temp. in continued fevers. The temp. and pulse does not run up to such an height in typhoid fever within twenty-four hours: on the contrary, we look on a case of typhoid fever, with a temp. of 105° Fahr. at the end of the first week, as very high and ominous of mischief, and I need not tell you that in typhus we do not expect a temp. of 105° before the fifth or sixth day, and even then it would portend an extremely bad case. In fact, a temp. of 105° at any time in typhus would mean a very heavy case. These two clinical facts, the sudden running up of the pulse and temp. taken together where a doubt might arise, during the prevalence of scarlatina, would, even in the absence of eruption, justify you in saying that it was a case of latent scarlatina.

In this case we had also at the end of twenty-four hours, sordes on the teeth. The remark which I made at the time about the sordes on the teeth, as some of you will no doubt remember, was:—"Gentlemen, this will be a very severe case of scarlatina." It would not have surprised me to have seen sordes about the third, or fourth, or fifth day; but with such a temp. and pulse, and sordes at the end of twenty-four hours, it was pronounced a most severe case, as it eventually turned out. Whenever you have such an early high temp. and so quick a pulse, and the objective sign of sordes, you will correlatively have another symptom, the value of which over and over again I have pointed out to you in connection with long and short fevers, viz., delirium. You cannot attach too much value to the symptom of delirium; and to understand its clinical value you must weigh well the different degrees of delirium. The delirium in this case was of a very active kind. She was a young girl, 12 years of age, extremely florid, and her delirium was so active that a nurse was told off to keep her in bed, and eventually we had to use mild restraint by tightening the sheets. There is one other kind of delirium in scarlatina, in which there is a low muttering from the start, of which I will give you a typical case. From the very first night after the accession of the fever this girl became delirious, and the delirium went on increasing till the fourth day.

Now if a patient in fever gets delirium, whether it is active delirium or of a more passive kind, either in typhus or enteric fever, within forty-eight hours, what would be your prognosis of such a case? The end of that case would probably be, that about the time the scarlatina would be "defervescing," the "typhus" would become tose. That is something like the clinical value which attaches to delirium, occurring early in continued fevers. If you found a patient in typhus fever delirious on the second day, I fear in spite of all your stimulation and support, the case would prove fatal. Nor do we meet with such very early active or violent delirium in typhoid fever, but if it did occur, its prognosis would be equally unfavourable. But here was a girl with the most active delirium, and yet we did not shave the head, or put ice to her forehead, or use either antiphlogistic or stimulant remedies. We let the delirium alone; and why? Because we were aware that this girl's fever was a short fever; we knew that the high temperature and small pulse, and all the co-relations of fever in this disease, generally abate about the fourth or fifth day. If this girl had to go through a continued fever of twelve or fourteen days, with such a high temperature, and signs of such combustion at the start, we would have treated it very differently. But we took the delirium for what it was worth, and gave no stimulant, but plenty of beef tea and milk diet. The case went on as you saw, and the delirium left her for a time; but then there was a secondary kind of delirium about the eighth day. Now what is the meaning of the returning delirium? The eruption had disappeared, and though her tonsils were very much enlarged, and there was general cervical glandular enlargement, the temperature was coming down, and she seemed on the high road to convalescence, when she got delirium again on the eighth day. This delirium was associated with swelling of the parotid and submaxillary glands. This was a different kind of delirium from the first. It was what we call a passive form of delirium. If you ask me what I consider its clinical character, I answer that I regard it as a pyæmic symptom which you will see coming on about the eighth, ninth, or tenth day in scarlatina. The moment this delirium ensued we at once grave the patient stimulants, commencing with one ounce of brandy, and increasing it to two ounces in the twenty-four hours, with as much beef tea, milk, and nutriment as we could get her to swallow; and when I found this glandular enlargement still extending, ten drop doses of syrup of the iodide of iron were added every third hour. By this treatment the girl, so to speak, battled through the disease, till matter formed, and was given vent to in the submaxillary space, and she recovered.

I have dwelt on the treatment of this case, which was one of very considerable severity, and I may tell you that these buboes in the neck in scarlatina are frequently attended with fatal results; but take care lest the fatality of these cases has been added to by what may be called lowering and antiphlogistic remedies. Be that as it may, my advice to you would be, whenever you see a case of scarlatina with submaxillary and cervical glandular enlargement, coming in with secondary fever about the eighth, ninth, or tenth day, let your treatment be stimulant and generous.

Now this case is a type of what may be called the scarlatina "anginosa." It is a severe form of the the disease, but there is a much more severe and fatal one. There is a type called scarlatina "maligna," which is ushered in in this wise. It seems as if the poison, so to speak, seized upon the patient, that he or she was so completely overwhelmed by it, that death ensues frequently within thirty-six or forty-eight hours. I will give you a type of this form of

scarlatina. A girl, called Kate D——, was seized on the evening of the 3rd December last, with shivering, headache, and sore throat. She was brought to Sir Patrick Dun's Hospital on the morning of the 5th. She was the fourth member of her family that caught scarlatina, the other three having died at home. After admission, when conscious, she complained of nothing but headache and great thirst. There was delirium of a low type. She had no evidence of any tonsilitic enlargement of any kind. She was in a most restless, agitated state, with subsultus twitchings about the angles of the mouth; her face was bluish, and faintly mottled. She kept picking at the bed clothes, and was sleepless. She could scarcely be got to give an answer to a question, or to protrude her tongue, which was dry and black; her teeth and lips were covered with sordes, and she was suffering from diarrhœa, of which she gave no warning. Now, it would be impossible to meet with more grave symptoms than these. On admission she got wine liberally; her pulse was then 140, and temp. 101°·9. The following morning, 6th December, I found that she had dozed at intervals during the night, but was very delirious; and all the other symptoms more aggravated. Her delirium was of a low muttering character. The erruption was out on the lower extremities, but of a very livid colour. Her pulse was 150 this morning, and her temp. had fallen to 96°·6. She was ordered fifteen minim doses of tincture of perchloride of iron, to be taken every third hour; a tablespoonful of brandy every second hour, day and night, with as much milk, and rice milk as she could be induced to take. On the following morning, the 7th December, I found she had been still very restless and delirious during the night, and that she had not slept. Her pulse was 130, and her temp. 100°·2. On account of the sleeplessness she was ordered twenty grains of chloral at bedtime; the iron and brandy to be continued as before. On the 8th December, she was still delirious, and constantly trying to get out of bed. Her pulse was 100, and temp. 98°·3. The brandy and the iron mixture were continued in the same doses, and she was ordered twenty grains of bromide of potassium, instead of the chloral hydrate at bedtime. On the 9th, she had slept more quietly, with almost no delirium, but had vomited freely. Her pulse was now down to 90 and temp. to 97°, and for the first time she had given warning, when she wanted the nurse. The brandy and the iron mixture were continued. On the 10th December she had slept well, with no delirium, and was very much better. The iron mixture was continued, but the brandy was reduced to half ounce doses every fourth hour. From that time this patient did well, and she left the Hospital with a normal pulse and temperature on the 15th December.

Now the symptoms in this case were typical of what we call the scarlatina "*maligna*." You see that the delirium differed from the delirium in the previous case in being of a low, asthenic type; and hence from the very start, I may say, I at once put this girl on the most stimulating plan of treatment I could devise, and a treatment which you will see the value of, the more you employ it in these low, typhoid, exanthematous cases, viz., the old fashioned muriate tincture of iron, which she got in fifteen drop doses every third hour, day and night, with half an ounce of brandy every second hour, day and night.

This girl had a symptom which was not present in the other case. In addition to her delirium, she had abortive convulsions. I do not mean to say that she threw herself about, or bit her tongue, but she had suppressed convulsions, evidenced by twitchings about the angles of the mouth and muscles of the face, and subsultus. Whenever you see symptoms of convulsions ushering in scarlatina, "you may look out" for the worst. It is a most grave symptom when ushering in scarlatina, especially when superadded to the other symptoms I have mentioned; but you may have convulsions at another period of your scarlatina, and though the ushering in of this fever with convulsions is of serious moment, *cæteris paribus*, in my mind it is not so serious as the accession of convulsions in the secondary stages of scarlatina, when it is generally associated with anasarca and uræmia. Again, in this case, we had vomitting, sleeplessness, and diarrhœa. In fact, all the gravest symptoms occurring early.

I have cited those two cases as typical of the more severe form of the disease. The latter type of the disease is one that almost invariably proves fatal. In connection with the treatment which you see I have adopted in those cases, I may say that wherever I see grave symptoms, I adopt the stimulant and chalybeate treatment I have mentioned; and in proof of its therapeutical value, I will adduce some other case. In consultation with Dr. Edward White of this city, about six weeks ago, I saw three children, members of the same family, in scarlatina. The first was a boy between three and four years of age; he had been about seven or eight days in scarlatina when I saw him; he was delirious, and screaming, and had a sanious discharge from his nose, an offensive discharge from both ears, and great submaxillary and cervical glandular enlargement. The treatment adopted was five minims of the muriate tincture of iron every third hour, with an ounce of brandy in a pint of milk, and beef tea as much as he could be got to swallaw.

This case, which was a type of the scarlatinal bubo, the entire neck giving a brawny sensation to the hand—recovered. The next was a girl about five years of age, and she got the typical sore throat of scarlatina, which I may tell you is a bluish condition of the fauces and arches of the palate, and an œdematous condition of the uvula, with a kind of creamy white epithelial exudation, in patches over the tonsils and fauces. It is not of a diphtheritic character, nor of a yellowish sloughy colour, but is a whitish, creamy, nontenacious exudation. This girl had the eruption well out with this condition of throat. We were not uneasy about her till about the eighth day, when her temperature got up, and she got scarlatinal rheumatism. She suffered from

severe pains in her shoulder, elbows, and wrist joints. We at once put her on iron and brandy, and the case did well. The next member of the family was a girl about ten years of age. She had a sanious discharge from the nose and ears, and buboes in the neck. She was treated on identically the same plan, viz., with eight minim doses of muriate tincture of iron every third hour, a teaspoonful of brandy and milk every second hour, and though the case was very protracted, eventually matter pointed in the neck, and she recovered.

I mention these cases with their salient symptoms, especially the buboes in the neck, as typical of the value of the stimulant and iron treatment in cases with pyæmic symptoms—a mode of treatment which I fear is not sufficiently often steadily carried out.

I will now adduce to you another case, in which there was a complication, viz., *glossitis*, which I saw for the first time in scarlatina. A gentleman in this city, aged about 18 years, sent for me, complaining of rigors, chilliness, and pains in his bones. I suspected scarlatina, and on examination, I found faint eruption on his lower extremities; desquamation ensued in due course. On the eighth day, slight enlargement of the submaxillary glands took place, the tongue being morbidly red. On the morning of the ninth day, when I entered his room, I was struck with a peculiar smell, and on looking at my patient, found him with his tongue protruding from his mouth; he could not close his mouth, or keep in his tongue. His speech was quiet unintelligible from the size of his tongue, and he could not swallow, and within twenty-four hours this acute glossitis had set up, and he had been delirious during the night. I at once made a free incision along the dorsum of the tongue, and promoted the bleeding with hot-water gargles, afterwards employing gargles of chlorate of potash, and put him on fifteen minim doses of the muriate tincture of iron every third hour, and a tablespoonful of brandy and milk every second hour, night and day. The scarification was attended with complete success. I saw him in the afternoon of of the same day, when he was able to speak intelligibly, and keep in his tongue; in due time, the glandular enlargement disappeared, and the case did well.

I cite this case for two reasons, firstly, the occurrence of such an unusual and abnormal complication as "glossitis" in scarlatina. I saw in Sir Patrick Dun's Hospital, about three years ago, a case of glossitis occurring during typhoid fever, but with that exception and the present instance, I cannot recall another case of glossitis occurring in connection with any exanthematous disease. Dr. Collins has recorded a case of scarlatina, the only one I can lay my hands on, which was under the care of Dr. Banks some years ago in Sir P. Dun's Hospital, in which glossitis set up about the ninth or tenth day. Recovery in this case followed free scarifications of the tongue; and it also still further confirms the value which attaches, in my opinion, to this chalybeate and stimulant treatment, in what may be called the secondary or pyæmic fever of scarlatina.—*Irish Hospital Gazette.*

THE POISONOUS ACTION OF TINCTURE OF ARNICA UPON THE SKIN.

By James C. White, M.D.

Case I.—A gentleman, sixty-five years of age, in descending the stairs to mount his horse for a ride, slipped and scraped the lower part of his back. A handkerchief dipped in tincture of arnica was immediately applied to the bruised skin of the buttocks and worn in contact with the part during the ride, which was not given up on account of injury. Before his return a good deal of itching was felt in the back, which caused the parts to be rubbed vigorously. On examination after reaching home, the skin was found to be already greatly congested, and the irritation of the parts increased a great deal during the day and night. On the next day I was called to see him. The skin of the back, nearly to the shoulders, was in a state of active hyperæmia, and already covered with innumerable papules. The inflammatory process extended rapidly downwards nearly to the knees, and forwards upon the abdomen and genitals. In a few days these parts presented all the characteristic appearances of acute eczema in its various stages of progression: general hyperæmia, papules, vesicles, excoriated and exuding surfaces, and crusts. The subjective symptoms were intense itching, stinging, and burning in the parts. Scarcely any clothing could be borne in contact with the skin by day, and sleep was for a few nights almost impossible, but the system generally was only slightly disturbed. The course of the affection need not, however, be given in detail, as it did not vary in any important particulars from that of an ordinary acute eczema of high grade and short duration; the process reaching (under treatment) its height within a week, and rapidly disappearing with the usual retrogressive manifestations.

Case II.—A gentleman, sixty years old, applied to his right arm above the elbow a fomentation of tincture of arnica on two successive days, on account of a so-called rheumatic pain in the limb. The part became generally reddened and swollen in a few days, and ten days after the applications were made he consulted me. The arm from the elbow to the shoulder at that time was considerably swollen, of a vivid redness, and covered over the lower half of this district with a very thick eruption of papules, many of which were already partially converted into vesicles. Great itching and burning were felt in the part, which gradually ceased as the inflammation subsided. The efflorescence under treatment did not progress beyond the vesicular stage, and the skin returned to its normal state in ten or fourteen days subsequently.

The nature and cause of the affection of the skin in these cases cannot, I think, be misinterpreted. In all of them we have an acute inflammatory process, confined to the upper dermal layers, and manifesting itself, according to the stage reached, by the following appearances: hyperæmia, papules, vesicles, excoriations, crusts, and scales, in regular sequence. The local sensations were intense itching and some degree of burning in the parts affected. There was no constitutional disturbance. In course, character, and

sequence of the lesions in their development and retrogression. in the intensity of the subjective and absence of constitutional symptoms, the affection is unmistakably acute eczema. It may be that cases occur in which the inflammation extends so deeply and reaches so high a degree, as to warrant the title dermatitis, but I have never seen them.

The cause was also plainly manifest. The inflammation followed in all the cases the applications of tincture of arnica to the skin as a fomentation. In one of the instances, the first, the epidermis may have been slightly broken; but in the other the skin of the parts was whole and healthy at the time of the applications. The inflammation began to show itself after intervals varying from a few hours to several days, and was confined to the part to which the applications was made, or extended from this as a centre.

These cases will serve, as well as more which might be presented, as typical illustrations of the action of arnica at times upon the skin. The affection, as will be seen, follows a very regular course in the character, distribution and duration of its lesions, differing widely in some of these respects from the wayward manifestations so peculiar to the action of rhus. Like the latter, arnica must therefore be regarded as an irritant poison when applied to the skin of some persons, but of less intensity and probably of less certainty in its action than rhus. With regard to this latter point, the proportionate frequency of poisoning after its external use, I do not know that we can form any judgment. There can be no doubt that tincture of arnica is very often used in the same way as in the cases above given. It has long enjoyed an exceptionally permanent reputation, and almost miraculous healing powers have been attributed to its Oesterlen says that "its reputation dates from the times when magicians carried on their hocus-pocus with it; from these it passed into the hands of quacks, and finally to physicians." There is scarcely a symptom of disease which, it was at one time thought in Europe, its internal administration could not successfully meet.

The physiological action of both the root and the flowers of arnica is said to be irritant, large doses producing vomiting and diarrhœa, inflammation of the stomach and bowels, headache, and dizziness. Its properties reside in an acrid resin and volatil oil. Our official preparations are a tincture, an alcoholic extract and a plaster. That tincture of arnica retained for centuries its great reputation as an application in bruises and sprains, and remains to this day perhaps the most popular remedy for such purposes, it may, thank the alcohol associated with it, for this beyond doubt is the only active agent in such applications.

The appearances which follow its use are no doubt often mistaken for the immediate effect, or the sequelæ, of the injury or other trouble for which it was applied. Even the physician, there can be little doubt, often fails to recognize the artificial nature of the eczema he is called to treat, and to connect it with the prior application of arnica to the skin. The almost universal belief in its harmlessness, too, would prevent in most cases the patient from communicating to the physician the fact of its use before the appearance of the disease. It is not to be wondered at, however, that physicians are so little acquainted with these poisonous properties, when we see how little mention is made of them in medical literature. The works on materia medica that I have at hand give it a more or less feeble commendation, but make no allusion to its injurious action upon the skin. Very few of the works on toxicology place arnica among the poisons and Van Hasselt, who gives the fullest account of its injurious properties when administered internally, says nothing of its action upon the skin.

It is to warn physicians who may be ignorant of these properties belonging to it, and that through them the public may be more generally informed concerning the dangerous character of one of the most popular and useless among domestic external remedies that I have thus brought the subject before the profession.—*Abridged from Boston Medical and Surgical Journal.*

GUM-CUTTING

By Charles E. Buckingham, MD,

Professor of Obstetrics in Harvard University.

For some time I have been making inquiry of physicians whom I met, and I was rather surprised to find among the younger practitioners so many who had never used the gum lancet, and who could not imagine the case in which it would be necessary.

The let-alone system of treatment is good; in very many cases it is the best; but it is not always the best. The relief afforded by a free incision through the gum in some instances in which there was acute pain has, under my observation been more marked than that afforded by any other operation that I ever saw. The tooth, it is true, in the very great majority of cases finds its way through without difficulty to the child. The first indication to the mother whose child has always been nursed, and never fed, is often the feeling of an incisor against her nipple. In some cases where a proper plan of feeding has been followed, there is as little indication of trouble during dentition. Occasionally when the child is nursed, more frequently when it is fed, and often when it is improperly fed, the little one apparently suffers pain in the mouth, in the head, and in the bowels, whenever a new tooth is about to make its appearance. In another class of badly-fed patients there is always loss of appetite at this time, with sleepless nights, nausea, and vomiting. In others, cough comes on which only exists then, and for which auscultation gives no explanation; and the little patient's sufferings are augmented by "hive syrup," squills, and other nauseants which gave no relief, and by "Mrs. Winslow's soothing syrup," and other narcotic drugs, which stupefy but do not cure. There is still another class consisting mainly of improperly-fed children, who have convulsions, sometimes slight it is true, and sometimes fatal. There is no disturbance of the nervous system so far as I know which may not exist in the teething child, and some which may not be aggravated by improper food. Indeed the time of dentition is the time when by far the greatest

number of deaths take place among children, whether the immediate cause be in the head, the chest, or the abdomen.

There are two common notions among maiden ladies who are often the advisers of mothers younger than themselves; these notions are the source of very great suffering to babies, and occasionally the cause of death. They are, that cutting the gum is very injurious, because "it may callous over afterwards and become so hard" that the tooth cannot get through so easily as if let alone; and secondly, "that the child may bleed to death," after the operation.

To the first of these the reply is, that no union of the gum after it has been cut will ever be any firmer than the gum itself was before it was cut. Cutting the gum may be as great a relief to an obstruction as when an incision is made over a bullet, a piece of bone, a splinter of wood, or a fragment of needle beneath the skin, and the system is trying alone to help it to the surface. More than this, the tooth is not only below the mucous membrane of the gum, but it may be within the sac in which it was formed, and which the force of nature is trying to perforate. If this covering be once cut across, its union (if it ever unites again) will be less perfect than before, and the patient's suffering will be relieved. Suppose the gum should heal after the incision, and the child's sufferings should recur; that is not a good reason for withholding relief now. And if it should suffer again, it can be relieved a second time, and even a third time. I never saw the case in which, if the gum lancet went well through, and was felt upon the surface of the tooth, there was any trouble with that particular tooth afterwards. It surely never could retract, and become deeper in the jaw than before.

The first effect of the incision is the relief of local pain by the oozing of blood. This is more particularly the case in those instances in which the gums are dry and hot, and there is no secretion from the mucous follicles nor from the salivary glands. An incision simply through the mucous membrane is followed by blood, and that by saliva in a very short time, giving great temporary relief; but if the lancet is felt to graze the tooth through the whole length of the incision, the relief is more than temporary; the immediate covering of the tooth never unites again, the growth of the tooth and the elasticity of the tissue preventing that process. If the offending tooth be a molar, a crucial incision is better than a longitudinal one. The relief is often so great from gum-cutting that I have seen children who were crying with agony, before the operation, look up in my face and laugh through their tears and I have known a child to come to me, and show by unmistakable signs her remembrance of the benefit received on another occasion by turning her head over upon my knees and pointing to the swelling above a cuspid tooth.

The second effect of gum-cutting is the relief of obstinate diarrhœa, obstinate constipation, and of all apparent signs of diseased brain, such as vomiting, stupor, convulsions, enlarged and non-contracting pupil. This relief I have seen more than once during the past year.

The second notion with which non-professional persons are possessed is the hæmorrhagic. I have no doubt that in my thirty years of professional life, I have had quoted to me, on an average, more than one case a year of fatal hæmorrhage from gum-cutting. But I never saw such a case, and I never spoke with a person who had seen one; it had always "been told to her" by some one else. I can imagine that it might be the possible result in one of the so called "bleeders;" but a prick with any other instrument in any other part would in that case be to have the same result. The nearest approach to this condition that ever came under my observation was of a young man of at least twenty five years of age some ten or fifteen years ago who died in the case of a hæmorrhage following the extraction of a tooth.

There is no operation, no medicine, which may not be followed by death. So sometimes neglect of medicine or neglect of an operation is followed by death. To offset any death resulting from gum-cutting (an accident which I never witnessed and never heard well authenticated), I could point to large numbers of infants whose comfort has been established, whose lives I believe to have been saved. There are many more, whose comfort I believe to have been sacrificed, and whose lives I believe to have been destroyed, by the prejudice against the gum lancet. *Boston Medical and Surgical Journal*

RULES FOR THE ADMINISTRATION OF ERGOT.

Dr. J. Braxton Hicks, in a lecture published in *Guy's Hospital Gazette*, Feb. 6, 1875, says: There is a rule which I may as well mention here, namely, *not to give secale if any obstacle to delivery is expected, unless we are prepared to render assistance when the pains have been roused.* I have seen the former portion of this rule enforced, but this is limiting our use of secale too much. Unless we have instruments, etc., close by, then the rule holds goods. As an instance of the employment of this drug under these circumstances, I may mention a case. I was sent for in consultation to a patient who had been a long time in labour. The pains had subsided. Two doses of liquor secalis had been given, but without any result. The uterus was still motionless. It was not in a permanently contracted condition. I therefore repeated a third dose. I waited an hour without result. Thinking that perhaps the preparation was at fault I gave twenty grains of the powder boiled in water, and drunk with the dregs. In a quarter of an hour the uterus was in full action. We had suspected some obstruction from noticing the size of the pelvis. I was therefore ready with the forceps. After waiting fairly and finding no advance the forceps was applied and the child delivered, an active uterus making the remainder of delivery safe and natural. The same would occur in a very contracted pelvis; if the uterus should fail in its activity in this case, even if we perforate first (supposing we do not think it advisable to turn) we are much assisted, and no danger is run, if we arouse the uterus into action before we draw down the child. It is

difficult to lay down rules as to when it is urgent, in cases of inactivity of the uturus, that we should stir it up to action. I remember, in my younger days, allowing the head of a premature fœtus to rest on the perinæum for twelve hours, at the end of which time there was one pain and the child was expelled. The administering of a dose of secale would at any time rouse "pains;" still, as there was no pressure, and as no ill resulted, there was no necessity. The pulse remaining good, and no aberration from the normal state existing, we may elect to wait without serious harm; it may be more convenient to get the labour over, we shall not be acting wrong in hastening matters. But when the pulse rises, feverishness begins, and the patient becomes anxious, fretful, and irritable, it is as well, the path for the exit of the child being clear, to give a dose of secale, especially if we have tried the perhaps milder though less certain measures at our hand for stirring up "pains." When the case is well selected, the full dose of secale, from half a drachm to one drachm, acts more satisfactorily as an expellent than small frequent doses. The latter tend to irritate the uterus and retain the child. If the uterus, however, be violently roused to expulsion, while the passages are unprepared or obstructed, then the uterus may injure and rupture itself, or may tear down the obstacle, rending the vagina or perinæum, or damage the child by pressure, or crush its cranial bones, or rupture the longitudinal sinus by too much overlapping.

I prefer to give ergot in the form of powder, twenty to thirty, or even forty grains boiled in water, and the whole taken; this may be repeated in twenty or thirty miuntes. There are many preparations which can be given, if proved to be good, in the equivalent doses. The ethereal tincture keeps well and is efficient, but is nauseous and liable to cause vomiting. It is prompt, and may be useful in *post-partum* hemorrhage. Ergotine has been employed in about four-grain doses injected subcutaneously. It is said to be very efficient and rapid in action, but personnally I have not sufficiently experience of it at present to speak of it more. It will be a very great advantage if ergot can be made to act promptly. Given in the form of a powder it is slow, even when previously boiled. It is more efficient if we employ the liquor or tincture; still it is then very slow for such cases as *post-partum* floodings. In ten minutes the crisis has often passed with one of two terminations; thus, although secale is good in the milder cases of flooding, it is practically useless in the sudden forms, unless its action come in afterwards, when our more active treatment has succeeded, to secure permanent contraction. It is a questionable point whether large doses of secale do not depress the heart's action, so much as to render its employment to be avoided in extreme cases of flooding. I am inclined to think that it has this effect; but this will not affect our employing it in cases without violent flooding. If in cases of flooding before labour we want to increase uterine action, we may generally employ it, unless the patient be nearly pulseless. It is always a great comfort to feel that when the child is born, the uterus will most probably be in an active state from the previous dose of ergot.

It has also been supposed that ergot is poisonous to the child. For myself, I have no proof of its poisonous properties, but I have often seen it kill the child. If you give it in ill-suited cases—I mean where the uterus, as in many primiparæ, is already irritated, where it has already half-asphyxiated the child, by pressing on the funis, placenta, and half closing the sinuses, then a dose of secale will go far to insure its death; or if impaction be already present, and the suture overlapping, then the parts inside the cranium are pressed upon so hard as to extinguish life, or at least so to damage the brain as to make the child an intellectual wreck. Given in moderate cases, and in the true inertia, I know no drug which is so certain of producing the desired effects.—*Lond. Med. Record.* Feb. 17, 1875.

ON WAXED PAPER AS A SUBSTITUTE FOR LINT AND OILED SILK.

Dr. Dyce Duckworth, of St. Bartholomew's Hospital (*Archives of Dermatology*, January), when using ointments for the cure of disease or abrasions of the skin, applies them on waxed paper instead of lint. This is the material used by pharmacists for covering gallipots, etc.; it consists simply of thin tissue-paper dipped in melted wax. A piece of this is cut of a size sufficient to extend beyond the margins of the sore place; the ointment suitable to the case is then smeared on the centre, not too thickly, and it is then carefully adapted to the affected part. It is adhesive, so that there is no necessity for strapping or bandaging; it is very cheap, and it is cooler than lint. Dr. Duckworth uses it even for extensive eczema of the limbs.—*Lond. Med. Record*, Feb. 17, 1875.

LIQUID GLYCERIN FOR BURNS.

℞ Calcis oxid., gr. iii;
Spirit. chloroformi, gr. iii;
Glycerinæ, f ʒ iiss.—M.

Charpie is dipped in the mixture, and placed over the burned surface; it is then covered with a thin sheet of gutta-percha, and the whole surrounded with a loose bandage. It is important that the charpie should be closely applied to the entire burned surface. The pain ceases almost instantly, and the sore heals very rapidly.—*Trans. N. Y. Med. Jour.*

TREATMENT OF PERTUSSIS BY INHALATION

℞ Ext. belladonnæ, M v ad x;
Potass bromid., ℈i;
Ammon. bromid., ℈ii;
Aquæ, f ʒ ii.—M.

Inhale one tablespoonful in the ordinary steam

atomizer; or this amount may be diluted by filling up the glass with water. In severe cases this may be used twice daily, until the urgency of the symptoms is relieved, and then continue once daily until the cough has entirely disappeared.—*Boston Med. and Surg. Jour.*

THE CANADA MEDICAL RECORD

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EDITOR:

FRANCIS W. CAMPBELL, M.A., M.D. L.R.C.P., LOND

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MONTREAL, MAY, 1875.

McGILL COLLEGE.

The Annual Medical Convocation of the University took place on the 31st of March. It was announced that the number of students in attendance during the past season was 129. The following gentlemen were announced as having passed their primary examination on Anatomy, Physiology, Chemistry, Materia Medica and Botany.

Campbell James, London, O.; Colquhoun George, Grantley, O.; Cook Guy R., B.A., Aultsville, O. Cooke Wm. Henry, Drummondville, Q.; Cream Thos. N., Quebec, Q.; Crothers Wm., Clarenceville, Q.; Eberle Henry, Morpeth, O.; Cray John S. Heckston, O.; Greer Thos. A., Colborne, O.; Hunt Henry, Notfield, O.; Johnson Jas. B., Weston, O.; Lang Christopher McL., Owen Sound, O.; Levi Reuben, Montreal, Q.; McIlmoyl Henry A., Iroquois O.; MacDonnell Richard L., B.A, Montreal, Q.; McRae George, Renfrew, O; Metcalfe Henry J, Riceville, O.; Munro Alex., Montreal, Q; Murray Chas. H., B.A., Montreal, Q.; Powell Robert W; Ottawa, O.; Reddy Herbert L., B.A., Montreal, Q; Ritchie Arthur F., B.A., Montreal, Q.; Robinson Stephen J., Brantford, O.; Ross Wm. D. Ottawa, O.; Secord Levi, Brantford, O.; Smith Wm., Lachute, Q.; Snider Fred. S., Simcoe, Q.; Stevenson Chas. N., Sarnia, O.; Stevenson Sabine. Cayuga, O.; Storrs Arthur, Cornwallis, N.S.; Stroud Chas. S., Montreal, Q.; Young Philip R., Clarenceville. Q.

The following is the list of the graduating class:

Bain Hugh C., B.A, Perth, O.; Benson Joseph B, Chatham, N.B.; Bomberry George E., Tuscarora, O.; Brossard Jean Bte., Laprairie, Q.; Burland William H., Montreal, Q.; Christie John H., B.A., Lachute, Q.; Dorland James, Adolphustown, O.; Dowling John F., Appleton. O; Duncan George C., Port Dover, O.; Falls Samuel K., Carp, O.; Gilbert Henry L., Sherbrooke, Q.; Goodhue Perkins J., Danville, Q.; Graham Kenneth D., Ottawa, O.; Hanington Ernest, B.A., Shediac, N.B.; Hanover William, Pakenham, O; Hume William L, Leeds, Q.; Jamieson Thomas A., Lancaster, O.; Kearney Willlam J., Montreal, Q.; Langlois Onesime X., Windsor, O; Mattice Richard J., Moulinette, O.; McDermid William, Martintown, O.; Meek James A., Cornwallis, N.S; Monk George H., Montreal, Q.; Nelles James M., Brantford, O.; Ross William D, Ottawa, O.; Scott William F., Hull, Q., Tunstall Simon J., B.A., St. Ann's, Q.; Ward Michael O'B., Montreal, Q.; Wigle Hiram, Essex Centre, O.; Woods Edmund J. J., Alymer, Q.; Woolway Christopher C., St. Mary's, O.;

Three of the above-named gentlemen, Messrs. Burland, Gilbert and Woolway, are under age. They have, however, passed all the examinations and fulfilled all the requirements necessary for graduation, and only await their majority to receive their Degree.

The Holmes Gold Medal was awarded to Simon J. Tunstall, B.A., St. Ann's, P.Q.

The prize for the final examination was awarded to Joseph B. Benson, Chatham, N.B.

The prize for the primary examination was awarded to Charles S. Murray, B.A., Montreal, Q., and Robert W. Powell, Ottawa, O. These two gentlemen received an equal number of marks.

The following gentlemen, arranged in the order of merit, deserve honourable mention:—In the final examination, Messrs. Hanington, Hume. Bain, Ross, Falls, Ward, and Scott.

In the primary examination. Messrs. MacDonnell, Ritchie, Smith, Levi, Young, Reddy. Secord, Snider, Ross, Hunt, Guy R. Cook, and Sabine Stevenson.

Demonstrator's prize in the Senior Class, awarded to John Brodie.

Those deserving honourable mention for care and assiduity, Messrs. A. C. Fraser, James Bell, F. L. Miner, G. E. Armstrong, and William H. Howie.

Junior Class prize awarded to N. Ayer. Honourable mention, Messrs. A. Jamieson, W. B. Gibson, Fred. Campbell, F. J. Stafford, and J. J. Guerin.

QUEBEC PHARMACEUTICAL ASSOCIATION.

The examinations conducted by the Board of Examiners of the Pharmaceutical Association of the Province of Quebec, in accordance with the

Act recently passed by the Quebec Parliament, were held in this city, the latter end of April, when the following gentlemen passed the major examination and were registered as licentiates in Pharmacy:—Wallace Dawson, R. H. Bryson and J. A. Gordon: two others being unsuccessful, were recommended to continue their studies for another year. The following passed the minor examination and were registered certified clerks:—L. R. Barridon, T. W. Henderson, and Elzear Laviolette, seven others being referred back for further experience and study. The Board of Examiners met in Quebec in the second week in May for the convenience of candidates residing in that vicinity. The new Act under which these examinations have been held will be most stringently enforced from the 1st of May; and all druggists, clerks and apprentices who have not already complied with the law should at once send in their names to the Registrar, E. Muir, Esq., Place d'Armes. The "Poison Book," one of which every druggist is required to use for the registration of the sale of poisons, is now ready and can be obtained from the Registrar. The following gentelmen comprise the Board of Examiners: Nathan Mercer, Alex. Manson, W. E. Brunet, Henry R. Gray, J. D. L. Ambrosse, H. F. Jackson and Henry Lyman, *ex-officio* President. In the interest of the public it should be generally known that all physicians keeping drug stores are obliged equally with licensed druggists, to employ no one in their pharmacies as clerks or apprentices who are not duly registered under the Act.

MEDICO-CHIRURGICAL SOCIETY, MAY 7TH, 1875.

The regular meeting was held this evening, when Dr. Roddick read a paper on "Surgical Diseases of the Eye." He gave the history and treatment of three cases that had been under his care during the past five months in the Montreal General Hospital.

Case 1.—W. H., aet. 56 years, laborer, sustained an injury while blasting in the water works reservoir, on the side of the Mountain. When seen by him both eyes were closed from œdema and spasm. Removed from the outer angle of right eye a quantity of dirt, and two spiculæ of wood, each about the size of a match; eye-ball itself apparently not injured. From the left eye a good deal of dirt was removed, also a spiculæ of wood from the inner angle of the eye, much larger than those taken from the right eye.

After operation, used a solution of atropine, gave 1 gr. opium, and ordered continued application of iced water lotion.

The day after the operation there was a good deal of chemosis, for which he scarified the conjunctiva and gave a cathartic.

On the third day there was much pain, which was relieved by hypodermic injections of morphine. The cornea is also hazy; gave 1 gr. calomel. and 2 gr. opium every four hours, and changed the cold water lotion for hot poppy water fomentations.

4th day.—Eye much worse; pus in anterior chamber; there is pain in good eye, also flashes of light, &c. This condition of things was met by removal of the eye while under chloroform. After this operation patient did well, and was discharged cured, after being in hospital 6 weeks.

Case 2.—T. H., aet. 23, laborer, was injured at same time and place as case 1. Eyelids much swollen; removed gravel and spiculæ of wood, also a clot of blood and the comminuted debris of the anterior part of the globe of the eye; the external osseous boundary of the orbit was also found to be wanting. The treatment consisted in washing out the eye with a lotion of carbolized water. The wound healed well and made a good stump. Discharged with right eye intact.

Case 3.—W. T., aet. 65, was seen on 10th March last. Found double cataract, that of left eye of five years standing, the right of five months; general health good. On 12th March, dilated pupils with atropine, and after induction of anesthesia, began to operate by lower flap, but while making the incision through the cornea the man moved his head, and the operation had to be discontinued; waited for two days, and then operated as proposed before with success.

On third day the iris was found to protrude, and failed to recede under the use of silver nitrate and pressure, but soon got well by repeated puncture of the cornea with a needle.

In his remarks Dr. R. stated that were he treating case No. 1, he would insert a suture into the sclerotic wound, as he finds this procedure is highly commended by Dr. Lawson of London, and Dr. Williams of Boston—also, that Dr. L. recommends the immediate excision of the eye ball in cases where a foreign body has become lodged in the eye and cannot be removed: this course wards off danger of sympathetic inflammation, from the sound eye.

DISCUSSION.

Dr. McCallum remarked he had two cases, one in which the lid slipped, and he punctured lid at counter puncture; case did well. The other also ultimately did well, although there was escape of aqueous fluid for some time after the operation.

Dr. Fenwick had one case of operation by lower flap, also; recovery was tedious, but did well. He remarked that Dr. Williams, of Boston, uses fine sutures (black silk) to bring edges of incision together, merely engaging the conjunctiva.

Dr. Howard congratulated Dr. Roddick on the success of case 1, as the excision of eye saved the other eye. As to sympathetic opthalmia, remembers a case where removal of bad eye saved the good one, also related a case where tetanus followed injury of eye by a nail.

Dr. Reddy operated several times for cataract. In one case by Dr. Fraser lost the eye by lid slipping, the case operated by upper flap did well. In another case operated on both eyes and did well. Excised eye three times for sympathetic incision of good eye, all did well.

Dr. Trenholme related a case where the aqueous humor escaped through motion of head when making counter puncture, but by letting lid fall and keeping quiet a few moments it soon reaccumulated and allowed operation to be completed, and was successful, the patient nearly eighty years old being now able to read with comfort and pleasure. Also that glaucoma is apt to be overlooked when complicated by cataract.

Dr. Gardner related a case of injury followed after nearly a year by opacity of lens. The operation for cataract was performed without chloroform, and the lens escaped with some of the vitrious humour. Case did well.

ZIEMSSEN'S CYCLOPÆDIA OF THE PRACTICE OF MEDICINE.

We are requested by the publishers, Messrs. William Wood & Co., of New York, to intimate to the profession that they will not furnish parts of sets, but that the subscription must be for the entire work. This notice is given because, as the work progresses, it is possible, from some subscribers breaking up their sets, that occasional odd volumes may be offered for sale.

PERSONAL.

Dr. Clarence J. Chipman, House Surgeon of the Montreal General Hospital, has, by limitation, resigned his position.

Dr. Cameron, Assistant House Surgeon of the Montreal General Hospstal, has been appointed to the House Surgeoncy, vacant by the expiration of Dr. Chipman's time of service.

Dr. J. D. Cline, B.A., Apothecary to the Montreal General Hospital, has been appointed to the Assistant House Surgeoncy, vacant by Dr. Cameron's promotion.

Mr. Burland of Montreal, a student of McGill College, who has passed all the examinations for the degree of M.D., C.M., but who, on account of not having attained his majority, has not yet graduated, has been appointed Apothecary to the Hospital. This was the first time this appointment was made by the Board of Governors, and we understand that much interest was taken in the contest. Mr. Burland had a formidable opponent in the person of Dr. Tunstall, M.D. of McGill College of the past session and gold medallist of his class, who was strongly recommended for the appointment by the Medical Board of the Hospital. The keenness of the contest will be understood when we state that Mr. Burland's majority was but one vote.

Dr. McNeece of Bury, Eastern Townships, sailed for Liverpool on the 1st of May in the Allan S.S. "*Peruvian.*" We understand he accepts for a short season, with a view of benefiting his health, a position of Surgeon on the Allan line.

Dr. Kenneth Reid (McGill College, 1864) and Dr. Dewolfe, also we believe a Canadian, are the Surgeons of the West side Infirmary for diseases of the Eye and Throat, situated on 8th Avenue, New York. During the year 1874, 729 patients were treated at this institution, and many important operations performed.

On Dr. Clarence Chipman's retirement from the House Surgeoncy of the Montreal General Hospital, on the 1st of the present month, he was presented by the officers of the Institution with a massive gold chain, with gold coin attached, upon which was engraved a suitable inscription.

MARRIED.

In Brockville, on the 27th April, at the residence of George E. Gascoigne, Esq., M.D., by the Rev. Canon Muloch, rector of St. Peter's, Wolfred Nelson, C.M., M.D., Assistant Demonstrator of Anatomy, University of Bishop's College, eldest son of the late Horace Nelson, Esq., M.D., to Frederika W., daughter of the late James de Long, Esq., of San Francisco, California.

In Montreal, on the 13th May, by the Rev. Mr. Chambers, John B. McConnell, M.D., Professor of Botany, University of Bishop's College, to Theodora Lovell, eldest daughter of Robert Miller, Esq.

DIED.

At Sandymount, Dublin, on the 8th instant, Sidney Sophia Morris, aged 69, relict of the late William Austin, Esq., Inspector-General of Hospitals, formerly of Montreal, and mother of Dr. Austin of Montreal.

In Bedford, P.Q., on the 14th May, M. R. Meigs, M.D., in his 35th year.

Original Communications.

A Résumé of the present state of our knowledge of Hæmophilia. By F. J. Austin, M.D., C.M., L.R.C.P.E., L.R.C.S.E. Read before the Medico-Chirurgical Society of Montreal, (on the 21st May, 1875.)

Hæmophilia is the name now generally employed to express that particular form of the hæmorrhagic Diathesis, which is distinctly congenital, nearly always hereditary, and frequently accompanied by a tendency to pain and swelling of the joints.

It is characterized by an exceedingly uncontrollable tendency to hæmrrohages, either spontaneous, or upon the slightest wound or abrasion of the skin, and the difficulty experienced in arresting the flow of blood. But this hæmorrhage must be not only obstinate and prolonged, but must be also Congenital in order to mark the case as one of Hæmophilia.

A Hæmorrhagic Diathesis or tendency to hæmorrhage, may develop itself in young and previously healthy persons, from exposure to defective Hygienic conditions, and disappear on a return to a state more favourable to health; or sometimes without any apparent hereditary taint this diathesis may show itself during adult life and remain during life.—

A hæmorrhagic tendency frequently does appear in the course of certain diseases, as Purpura, Scurvy, Cyanosis, Hepatic, Renal, Splenic, and some forms of Cardiac disease and in plethoric and anemic conditions of the system, this tendency may even last for years, but in Hæmophilia it is congenital or almost so, not necessarily attended with any organi disease, developes itself in infancy, and usually continues as a prominent symptom throughout the life of the unfortunate sufferer.

Our standard text books on medicine and surgery, do not devote much space to this subject, and with a few exceptions give rather an incomplete and cursory discription of the disease, in some cases making statements which are not fully born out by the experience of those who have made a study of the disease, some of them doing little more than mention that the Hæmorrhagic Diathesis is sometimes said to be hereditary.

This summary disposal of the subject probably depends on the fact, that although numerous cases of uncontrollable hæmorrhage, both spontaneous and trautmatic, have been recorded by English observers, their frequent hereditary origin was not noticed until comparatively recently. In Germany however, where the disease appears to be more frequent than in other countries, possibly from the fact that having been first recognized and studied by the German physicians, it has been more prominently brought forward; its hereditary origin has been carefully traced through whole families for several generations.

The disease is by them called Hæmophilia, and those subject to it are commonly and expressively styled "Bleeders."

I much regret that my inability to read German has restricted my observations to the isolated cases, and short fragmentary articles on the subject to be found in the English Medical periodicals and text books, but chiefly to the admirable Treatise on Hæmophilia by Dr. Wickham Legg, Casualty Physician to St. Bartholomew's Hospital, from whose work I have largely drawn, in fact Dr. Legg is, as far as I know, the only English writer who has taken the pains to scientifically collect and classify the history and phenomena of the disease.

That the disease is, in nearly all cases hereditary, is now generally acknowledged.

That it may arise *de novo* is still undecided, cases are recorded in which no hereditary taint could be traced, but these cases are open to doubt, unless it can be proved that the predisposition had not previously existed in the family, because as we will see presently it may remain latent for many years.

Then again, we must have all found how difficult it is, especially amongst the poorer classes, to trace the family history of a case even as far back as the parents, to say nothing of the grand parents.

It has been thought by some, that the disease may arise from the intermarriage of relations, grounding their opinion on its prevalance among the Germans and Jews, amongst whom the marriage of cousins is not discountenanced.

There are several curious phenomena regarding the influence of sex in reproducing and propagating the disease. It was at one time supposed that the male members of "Bleeder" families only were affected, further research has shown this to be unfounded; but it appears that in females the phenomena of the disease are less marked, and of a lower degree of intensity, usually not making their appearance until the age of puberty; it then manifests itself, not as a rule by excessive and uncontrollable hemorrhage when wounded, but by spontaneous hemorrhages menorrhagie and post partem hæmorrhages and to ecchymoses on slight injury.

A most remarkable feature of the disease is, that although the hereditary taint may only exhibit itself very slightly, in a woman belonging to a "Bleeder"

family, or even be quite latent, so much so that she may appear healthy and marry a perfectly healthy husband, yet she possesses in a high degree the faculty of transmitting the disease to her male children, who are almost sure to inherit it from her; even more surely than when the predisposition is on the paternal side.

Tanner in his work on the Practice of Medicine, says. "this form of the hemorrhagic Diathesis is equally manifested in male and female children though in adult life men seem to suffer more than women." On this point, Grandidier, who has devoted much time and study to the subject, state that of boys and girls affected, the proportion was about eleven of the former to one of the latter; that in girls it is rarely well marked, and the danger to life is much less; that in fatal cases the bleeding was generally from the genital organs; one case is recorded of fatal hæmorrhage from rupture of the hymén.

The male children of a woman in whom the symptoms of Hæmophilia are well developed, do not appear to inherit the disease in a more marked degree. than those of a woman in whom the disease is latent.

In the article on the Hæmorrhagic Diathesis in Holmes' System of Surgery, the writer, referring to this subject, says: "Men having the hæmorrhagic tendency who may marry healthy wives, do not appear to convey the tendency to their offspring." This though true to a certain extent does not appear to be the rule. There are cases on record where the disease was transmitted direct from father to son, the father not being a Bleeder himself, but having brothers who were.

It is stated that both the male and female members of a Bleeder family, who are exempt from its manifestations enjoy good health.

Another well marked feature in the etiology of hæmophilia, in common with other constitutional diseases, is the occurrence of "atavism" or "alternate generation." where the predisposition to hæmorrhage, may cease or lie dormant for a generation. only to appear in a subsequent one; or, though manifesting itself in each generation, may pass to the subsequent one through an individual who has not during life manifested its symptoms. For instance the children of a Bleeder may not, and frequently do not, suffer from the disease, yet his grandsons, especially his daughters' sons, are almost sure to be affected.

When once grafted into a family it is impossible to say if it can ever be eradicated. There are authentic accounts of families in whom the disease has existed for over one hundred years, and there is only one instance in which the disease has been reported to be disappearing in a family.

There does not appear to be any good reason why hæmophilia should be more prevalent in one country than another, still as a matter of fact by far the largest number of cases recorded, nearly 50 per cent., are German, less than 20 per cent. are English, including Scotch and Irish; France, the United States and Switzerland about 10 per cent. each, a few cases in Russia, Norway and Sweden. Other countries furnish no record of the disease except Sumatra, where it is stated a native Musselman family exist-in whom the disposition to bleed can be traced back for three generations.

Excitement, anger, fear, and the use of alcoholic stimulants seem to aggravate the disease, and may even become exciting causes of hæmorrhages.

Hæmorrhages are said to occur more frequently in spring than autumn, during the night than the day, and the liability is increased after the first traumatic hæmorrhage.

The subjects of hæmophilia may be either of a dark or fair complexion, more often the latter; skin thin and transparent. When not suffering from the effects of loss of blood they look well and healthy, and do not appear to suffer from, or to be more than ordinarily predisposed to any disease—they are frequently bright and intelligent.

The predisposition exists from the birth of the child, but most frequently remains latent until the first year of childhood, or about the period of dentition, when being now old enough to crawl about they are liable to hurt themselves. The latest age at which it has deferred manifesting its presence was in one case at the age of 22 years.

There appear to be three degrees of intensity in this disease: in the first and typical degree the liability to hæmorrhages, both traumatic and spontaneous, interstitial and superficial, and to joint affections is well marked; women seldom suffer from this form.

The second degree is characterized by spontaneous hæmorrhages from the mucous membranes only, without traumatic bleedings or ecchymoses; joint affections absent, or only indicated by a species of rheumatic pain; this is the usual form of the disease as it appears in women.

The third degree is marked only by liability to spontaneous ecchymoses.

The symptoms of hæmophilia may thus be considered under four heads: the traumatic and

spontaneous hæmorrhages, the ecchymoses and the joint affections.

The tendency to traumatic hæmorrhages does not invariably exist even in those suffering from the first, and as above stated is unusual in the second and third degrees of intensity, and is rarely met with in women.

When it does exist, the liability may vary in the same person at different times; so that at one time a wound may not bleed more than natural, while at another time a similar wound may bleed profusely.

Some families are also much more liable to it than others: in one the lancet may be used or a tooth extracted without danger, but in another the least touch of a knife or the application of a blister, may entail death from uncontrollable hæmorrhage: two deaths are said to have occurred from the latter cause. Fatal hæmorrhage has followed such simple operations as snipping the frenum linguæ, scarification of the gums, and of the arm for vaccination, leach bites and the extraction of a tooth: the latter is frequently followed by exceedingly dangerous bleeding; but the most profuse bleeding is said to follow when a hæmatoma has been laid open.

These bleeding wounds generally take a long time to heal, often suppurate and sometimes slough. After suppuration the bleeding usually ceases, but may return at any time even after the wound has apparently healed.

Although I have mentioned that death has resulted from hæmorrhage after vaccination, the danger to be apprehended is slight; in only two cases was it followed by alarming bleeding, one of them fatally so. In all cases where this point is noticed it is stated the vaccination was successful, the vesicle running its normal course even when the bleeding was excessive. It has been suggested that the inoculation of a small bleeding wound might tend to arrest the hæmorrhage.

Occasionally the bleeding does not come on until some hours or days after the infliction of the wound.

Spontaneous hæmorrhages are sometimes ushered in by premonitory symptoms, the "Molimen Hæmorrhagicum" of the old writers, lasting three or four days, and frequently there are indications which point to the part which is about to be affected, as pain in the loins before hæmaturia, itching in the nose before epistaxis.

The hæmorrhage is commonly from the mucous membranes, sometimes from the skin, and rarely from the serous membranes or within the cranium.

Age has a good deal to do in determining the surface from which the blood shall come: in childhood from the mucous membranes of the nose and mouth, after puberty from that of the lungs, in adult life from the urinary organs, intestines and rectum. When the bleeding has once set in, it may be continuous, intermittent, or cease and reappear from some other part, or may alternate with swelling of the joints.

A rapid flow of blood, whether traumatic or spontaneous, by inducing syncope and cessation of the flow, is not so dangerous as a prolonged recurring smaller bleeding; either leave the patient in an extreme anæmic and prostrated condition, the blood becoming thin and watery, loses its power of coagulating, and is said to resemble colored serum, or water in which raw meat has been washed.

In favourable cases the patient becomes unconscious, the bleeding then ceases, and he falls into a deep sleep which may last for several days—months may elapse before he regains his strength; convalescence being as a rule slow.

Unless an artery happens to be cut or ruptured, the bleeding is always capillary, the blood as it were leaking or oozing forth as if pressed from a sponge, there being no apparent disposition to restrain the flow by contraction of the vessels.

The interstitial hæmorrhages, comprising ecchymoses and petechiæ, present the same appearance, and go through the same changes of colour as those the result of bruises; they may be either traumatic or spontaneous.

Spontaneous ecchymoses are sometimes ushered in by the usual premonitory symptoms of hæmorrhage; they usually take place into the subcutaneous cellular tissue. These ecchymoses are not always present, and on the other hand are sometimes the only indication of the disease; they may alternate with external bleedings or joint affections, or may be the forerunner of hæmorrhages. They vary in size from minute spots to places as large as a cent.

The traumatic ecchymoses are induced by injuries which would produce little or no effect in ordinary constitutions. There is almost no limit to their extent the amount of blood extravasated may be so large as to cause death. Sir Wm. Jenner mentions a case in which the fall of an India rubber air ball upon the thigh caused the connective tissue of the limb to be filled with blood from the knee to the trochanters.

The joint affections are frequently a marked feature in this disease, comparatively few bleeders escape without some articular complication; in some families no individual who exhibits the diathesis escapes. So much is this the case that a hereditary liability to

hæmorrhages, developing itself in early childhood, and accompanied by a painful swelling or pseudo-rheumatic pains of the joints is diagnostic of hæmophilia. Though not so dangerous as hæmorrhages these joint complications are far more distressing and dreaded by the sufferer.

Two forms of this affection are noticed: a painful swelling of the large joints, generally the knee, and, secondly pain in the joints and limbs of a rheumatic character unaccompanied by swelling.

In the first variety the affected joint becomes enlarged, painful, and filled with fluid, the patient is feverish, the swelling is sometimes indistinctly fluctuating, and not attended with redness of the skin —or, as stated in Holmes' System of Surgery, "not unfrequently pain will come on in a joint, particularly in spring-time or harvest, and after passing irregularly from one joint to another will settle in the knee, and be followed by a painless enlargement of that joint, not unlike a white swelling."

This state of the joints may last a few days or months: frequently the swelling comes on suddenly, the joint becoming greatly enlarged, and occasionally almost as suddenly diminishes in size, in which case it not unfrequently reappears in another joint, or is succeeded by, or alternates with hæmorrhage. There is always great liability to relapse, so that sometimes the patient is never free from this unpleasant state of affairs. The affected joints may recover with or without permanent injury.

In the second variety, the pain may be very severe, may also alternate with or be premonitory of hemorrhages: this as well as the first variety are frequently effected and induced by exposure to cold and damp.

The post-mortem appearances found on examining the body of a bleeder are generally of a negative character, throwing little light on the pathology of the disease; it is said the internal organs, the heart and vessels, are frequently found healthy, that the rigor mortis is strongly marked, and that putridity comes on quickly.

I am unable to find that any observer has recorded the pathological condition of the joints, though Dr. Legg in an Addendum to his work, mentions that some important observations on this point have appeared in a French Medical Journal.* Unfortunately I have not been able to see the article referred to.

Although I have stated the heart and vessels are frequently found healthy, still abnormal conditions of these structures are occasionally found, and when they do exist are said to have an appearance conveying the impression of imperfect or arrested development.

For instance, the heart is sometimes seen to have the rounded form of the fœtal heart, its walls in part or in whole, thin and deficient in muscular fibre; the septum between the auricles and ventricles, particularly the former, thin and membranous; in one instance the foramen ovale was patent; the coats of the arteries very elastic, thin, almost transparent and deficient in muscular fibres.

Of the numerous post-mortem examinations that are recorded, in only 21 is it stated that particular attention was directed to the heart and vessels, Of these 21 nothing abnormal was discovered in 8; in 5 there was marked thinness of the arterial coats; of the remaining 8 the condition was severally as follows: in the first thinness of the pulmonary artery with hypertrophy of the heart. 2nd. Thinness of the pulmonary artery with a like condition of the ventricular septem. 3d. Hypertrophy of the heart. 4th. Hypertrophy of the heart with thinness of the walls of the right heart, and a cartilaginous condition of the valves of the left side. 5th. Hypertrophy of the left heart. 6th. Thinness of right heart. 7th. Thinness of auricular septem and patency of the foramen ovale. 8th. Fatty degeneration of heart and aorta. Verchow and Morel made microscopical examinations in two of the above cases, without finding any abnormal condition of the arteries or capillaries.

Of the five cases in which the arteries were found to be thin, their appearance is described as resembling veins more than arteries, their walls being thin, almost transparent, and deficient in muscular fibres.

The numerous theories which have been advanced, as to the nature and cause of the disease, may be embraced under the following heads: I. That hæmophilia is an anomalous form of some other disease, as gout or cyanosis. II. Some alteration of the composition of the blood. III. An abnormal condition of the vessels. IV. Disturbed innervation of the vessels, and, according to Grandidier, a combination of the 2nd and 3rd.*

As to the first I have only to say it appears to me to be unsatisfactory, an attempt to get out of a difficulty, and in doing so get into another.

The second, that of some alteration of the blood, used to be a favourite one; it was thought the blood was unnaturally fluid, this fluidity being variously

* *Lyon Medical, Dec.* 21, 1874.

* Grandidier, "Die Hämaphilie."

stated to be caused by hyperoxidation, increased vitality, an increase of its alkaline salts or an imperfect or arrested development of the blood.

This theory would seem to depend upon the idea that there is a watery condition of the blood, a deficiency of fibrin, and an imperfect coagulating power, but careful chemical, physical and microscopical examinations fail to discover any such condition ; the most recent observers on this point state, that until the patient becomes exhausted from hæmorrhage no alteration of its composition sufficient to account for the disease could be found.

The third theory, that of an abnormal condition of the vessels, depending on a congenital paralytic state of the small arteries and capillaries from imperfect development, rendering them unable to resist the flow of blood to a part, thus inducing effusion of blood with or without rupture of their walls, is founded on the occasional observance of the thinness and imperfect development of the arteries, and the fœtal form of the heart. This is perhaps sufficient to account for particular cases, but will not explain the temporary disappearance of the liability to hæmorrhages, or for those cases where no such appearance of the vessels can be found. This is the theory to which Dr. Legg seems to incline, though he acknowledges it does not explain some of the phenomena of the disease.

The fourth theory, of disturbed innervation, or in other words, an enfeebled condition or defective functional activity of the vaso-motor system of the sympathetic.

Several writers hold this theory of the nervous origin of the disease, grounding their opinion on the influence of mental emotions in inducing hæmorrhages, and the occasional disappearance of the diathesis : this, with our present knowledge of the influence of the sympathetic system on the circulation, is to my mind the only rational explanation ; but further research and observation are required to confirm it.

Having presumed to differ from such a high authority as Dr. Legg, it is but right I should state my reasons for so doing. Dr. Legg bases his opinion on the probability that in nearly all cases of hæmorrhage an alteration of the vessels precedes the effusion of blood—hæmorrhages in chronic diseases without previous disease of the vessels being very rare—hæmophilia is a chronic disease, and it is highly probable some change in the vessels is present, though so far none has been discovered—in many case of hæmophilia the heart and vessels present an abnormal appearance, indicative of imperfect development ; it is a congenital disease, and it may be that the fœtal state of the vessels persists in extra uterine life—new formed vessels are very liable to bleed; the new born infant bleeds much more readily and persistently than the adult; the vessels of newly formed granulations and rapidly growing tumors bleed on slight provocation. —if the vessels in hæmophilia are in a fœtal or newly developed state, hæmorrhages would be expected, even when the microscope detected no alteration in them. He himself says this theory can offer no explanation of the occasional temporary disappearance of the diathesis. It appears to me that what he considers the cause, is only the effect of a congenital predisposition to a perverted or impaired functional derangement of the vaso-motor system. The influence exerted by these nerves on the muscular fibres of the arterial walls is now too well understood to require any particular mention ; however, in order to make my meaning plain, I will refer to a few points in connection with this subject.

The office of the muscular coat of the arteries is to regulate and adjust the amount of blood to be received by each part ; to co-operate with the elastic coat in adapting the calibre of the vessels to the quantity of blood they contain ; and to close the divided ends of wounded vessels.

They are naturally in a constant state of tonic contraction, this tonicity being due to influences derived from the vaso-motor system. This is proved by the fact that when the sympathetic nerve of the rabbit's neck is divided, the muscular fibres of the arterial walls in the part supplied by that nerve, are temporarily paralyzed, as shown by the vessels of the ear on the injured side becoming dilated and the parts congested. After a time this congestion passes away ; but if the experiment is carried further, and the superior cervical ganglion be removed, thus cutting off all connection with the automatic vaso-motor center, the effect is permanent. On irritating the peripheral end of the divided nerve, the arteries contract and the congestion disappears.

If the medulla be divided near the base of the brain, the arteries of the whole body dilate.

Now if from any cause, congenital or otherwise, the sympathetic system, or that portion of it which constitutes the vaso-motor system, should be temporarily or permanently in an enfeebled or inactive condition, the result would be more or less local or

general plethora, depending on the extent, situation and continuance of the depressing influence.

Although in the experiments referred to, extravasations of blood did not take place unless the blood pressure was raised by ligaturing the aorta, still it must be granted that this condition is one ripe for hæmorrhage, only requiring an exciting cause or a fragile state of the vessels to bring it on.

By this hypothesis we can, I think, account for the occasional evanescent nature of the disease, its being in some cases of spontaneous hæmorrhages ushered in by symptoms of congestion, and for the uncontrollable nature of the bleeding from inability of the arteries to contract.

It is also strengthened by the effect ergot appears to have in controlling the hæmorrhage; and suggests that electricity would be a valuable agent in arresting these hæmorrhages.

Now, if we go a step further, and consider this enervated state of the vaso-motor system not only as congenital but also hereditary, I think it is not going too far to say, that the resulting paralytic condition of the vascular muscular tissue would tend to induce in these tissues a state of atony, followed by atrophy of their muscular fibre and thinness of their walls, and that it does not require a great stretch of imagination to suppose this condition of the vessels might also become more or less hereditary.

Until the pathology of hæmophilia is more fully investigated, the treatment must be grounded on the principles indicated and employed in treating hæmorrhages generally. It is obvious that the sooner means are taken to arrest the flow of blood the better will be the result.

To accomplish this end in traumatic hæmorrhages the local application of nitrate of silver, tannin, or the perchloride of iron, with compression and ice are the best.

If a bleeding artery is seen it ought to be ligatured, but any operation for ligaturing the artery supplying the bleeding part should be avoided as useless, only adding an additional source of hæmorrhage.

Searing the bleeding surface with a hot iron has been employed, often with only temporary benefit, as the bleeding usually returns when the slough separates.

The internal administration of the usual styptic remedies is called for, but cannot be relied on; they are even less effectual in traumatic than spontaneous bleedings; of the number the tr. ferri perchlor. and ergot, in large and repeated doses, seem to be the most efficacious.

As it is now generally believed that ergot owes its power of restraining hæmorrhages by virtue of its tonic action, on the unstriped muscular fibres of the arteries, the fact would go toward strengthening the theory of the nervous origin of the disease.

When spontaneous hæmorrhages are preceded by prodromata indicating vascular congestion, it is not considered advisable to arrest the bleeding too early. But when these premonitory symptoms are recognized in time it is possible to ward off the threatened hæmorrhage by low diet, an avoidance of stimulants and an occasional saline purgative, the sulphate of soda or magnesia being preferred.

If the hæmorrhage continues, and the patient becomes weak, a suitable and nourishing diet must be given; it was noticed in one case that the bleeding ceased for a time after meals.

Great care is necessary in using alcoholic stimulants, regulating its administration by the state of the pulse and effect induced, as it has been found that by their stimulating effects on the heart their exhibition has kept up, and even re-induced the hæmorrhage.

Transfusion, as a last resort, was successfully employed in one case.

The swollen and painful joints are to be treated on ordinary principles, using cold or warm applications followed by strapping and perfect rest.

The prophylactic treatment indicated is tonic, the tinct. ferri perchlor. and cod-liver oil being highly recommended by Dr. Legg, unless there are signs of plethora; cold, especially sea-bathing, a nutritious unstimulating diet, residence in a warm dry climate, flannel underclothing and care in avoiding cold and damp.

In a medico-legal point of view hæmophilia is of interest, and has in Germany been made the turning point in a law-case: A boy, after a whipping at school, went home with his back in a frightfully ecchymosed state, his indignant parents took proceedings against the school-master for undue violence towards their son, and the master only escaped punishment by proving that hæmophilia was hereditary in the boy's family, and that he was unaware of this fact or he would not have used the rod.

Lecture read before the Medico-Chirurgical Society of Montreal, June 4th, 1875. By A. H. KOLLMYER, M.A., M.D., professor of Materia Medica and Therapeutics, Bishop's University, Lecturer on Materia Medica and on Botany at the Montreal College of Pharmacy.

GUARANA is a remedial agent, which was introduced to the notice of European practitioners, many years since, by Dr. Gavrelle, formerly physician to Don Pedro of Brazil, where he had first become acquainted with its virtues. And though its source, composition, and actions appear to have been well known at that time, for a good account of all these may be seen in an old edition of Hooper's Medical Dictionary, published in London, in 1848, yet it appears to have fallen into a state of undeserved neglect and disuse in Europe till but recently, when Messrs. Grimault and Co. of Paris have again drawn attention to its therapeutical powers, and have furnished the profession with this valuable remedy in a reliable and convenient form. As with most medicines of Parisian origin (if I may so term it,) this soon reached Montreal, where a Mr. Woods, a gentleman with whom I am unacquainted, but who appears to entertain a very favourable opinion of its virtues, as experienced on himself, communicated the impression which he had received concerning it to Samuel Wilkes, M.D., F.R.C.P. Physician, to Guy's Hospital of London, who tried it then on himself and also on several of his patients with variable success, and reported his experience through the columns of *The Lancet*, by which means the profession became more generally acquainted with its existence, and also with its reputed powers. Now, as our ordinary text-books contain no reliable information concerning this substance. I concluded to collect in this paper all that has been communicated regarding it, as well as to jot down my own observations on its actions, in the hope that it may induce those among us who have already employed it to state their opinions regarding it, and also that it may serve to stimulate those who have yet to experiment with it, and ascertain for themselves the truth or fallacy of its vaunted therapeutical value.

The term guarana is derived from the natives of Brazil, or rather from a tribe of aborigines, called Guaranis, from whom this remedy was formerly altogether obtained. These are said to have employed it from time immemorial as a corrigent of their vegetable diet, and also as a kind of panacea, more especially in diarrhœa and in dysentery, the two great scourges of that country. Indeed, it is asserted that it is even yet prepared exclusively by these natives, and that its precise composition is most carefully kept secret among themselves.

So far as can be ascertained guarana is prepared from the resinous juice and the seeds of the *Paullinia Sorbilis*, a climbing plant, indigenous to Brazil, and also from another species, the *Paullinia cupana*, growing on the banks of the Oronoko river; both belong to the Sex. Syst. *Octandria trigynia;* and to the Nat. Syst.—*Sapindaceæ*.—It may not be out of place to mention here that this plant was called after S. Pauli, professor of Botany at Copenhagen.

Concerning the resin or gum, no accurate or descriptive account has been given, nor are we informed whether it is a natural spontaneous exudation or otherwise. The seeds, however, are described as lenticular, and almost thorny, surrounded by a flesh-colored arillus, which is easily separated when dry, and all enclosed within a three-celled, three-valved, coriaceous capsule.

In commerce guarana is met with in three forms:—1stly. The *Cylindrical*, which resembles exactly in appearance a petrified Boulogna sausage, being dark, and almost black externally, and a fleshy-red within; they are usually packed up in leaves in boxes. 2ndly, *Guarana in powder*, of which there are many different specimens, varying from dark to light greyish-brown—this kind is supposed to consist of the former variety pulverized. The chief objection to the employment of this form is that it can be too readily or conveniently adulterated. Much that is sold is worthless. 3rdly *Grimault's*, done up in Paris in small boxes containing twelve powders of thirty grains each:—these are of a flesh-colour, and resemble closely in appearance Pulv. Rhei. Co. of the British Pharmacopœia. These, the manufacturers inform us, are composed of the resinous juice, and the seeds reduced to a fine and impalpable powder, without any other additional admixture.

The cylinder or roll variety is reported to be prepared as follows:—The seeds are carefully collected, dried, cleansed, and pounded in a mortar, or upon a chocolate-stone previously heated, (some say they are now mixed with cacao and with cas-ava, others deny this part of the process;) a little water is now added, and the mass is exposed, some time to the dew, then it is kneaded into a paste, at the same time some of the seeds, either whole or bruised, are incorporated with the mass, and finally it is rolled into cylindrical or globular forms which are dried and hardened in the sun, or by the smoke of a fire. Occasionally, however, it is made up into fantastic and grotesque

figures by the natives, for I found the following remarks in Harper's Magazine of Sept. 1869, written by Thomas C. Evans, who has there given us a very interesting account of the manners and customs of the Brazilians; he says, when describing the inhabitants of Para:—

"The Paranese or natives derive their origin from an odd assemblance of races. The aboriginal and negro elements appear to predominate, though their traits are intermingled with those of Lusitania and Catalonia, and in a lesser degree with those of every people under heaven. The native Amazonian Indians have adopted urbano habits, and adjusted themselves to the restraints and industries of civilized life. They are shop keepers and artisans, water carriers, porters, gamesters, loafers, and what not. Not a few retain the primitive Indian aspect. They have the long straight, coarse hair, and the expression of mingled cunning, fear and ferocity which distinguish their brethren of the woods. One involuntarily feels for his scalp while buying little articles of these harmless descendants of the warlike Purupurus and Tupinambos, and almost expects his bargaining to be interrupted by the war cry and the whiz of arrows. In general, however, they are mixed with other races. Abyssinia and Nubia have contributed kinks to the straightness of the Amazonian hair, impressed additional flatness upon noses too flat already, and elongated heels which needed no such supererogatory extenuation. Portugal has aided in this transformation, so that the result is something compounded of the Portuguese, and the Brave.

"They are quite ingenious in some branches of manufacture. They make hats out of fibres of the palm, pipes from the red clay of the river, stems from long hollow reeds, which they paint and decorate with gilding after a rude but highly ornamental fashion. I was interested in examining some specimens of their more ambitious artistic efforts. The vehicle of these attempts was "guarana," a dark, resinous gum, which exudes from a tree, and is said to be a medicine as potent as quinine, though I believe it always kills, while quinine sometimes cures. They fashion this gum into various forms—snakes, lizards, birds, anteaters, monkeys, jugs, cups, pitchers; and the more aspiring and ambitious adventure upon the imitation of the human figure. The results are more like the clumsy hideous idols of India and Egypt than like the sculptures of Canova or Angelo; but their arms and legs are very distinct, and there is no mistaking their heads; and though they are a little uncertain as to toes and noses, their import is discernible without verbal or written elucidation."

The masses of guarana are of a reddish brown colour, rough on the surface, and marbled or mottled internally; the taste is bitterish and astringent, but it is odorless; it swells up, softens, and but partially dissolves in water; ether does not extract the whole of its active agent. Deschastelus ascertained that alcohol alone exhausts it of its medicinal virtues.

On chemical examination Martius discovered in it a crystallizable principle, which he called *guaranin*; this was proved, by MM. Berthemot and Deschastelus, to be identical with caffein and theiu. It exists in the seeds in combination with tannic acid, with which it appears to form two compounds: one, crystallizable and soluble in water, the other, resinoid and insoluble; the seeds also contain free tannic acid, gum, albumen, starch, and a greenish fixed oil. A more recent analysis has been made by M. Fournier, and the following appears as the result:—Tannate of guaranin, free tannin, gum, starch, an acrid green fixed oil, a concrete volatile oil, an aromatic liquid volatile oil soluble in water with a little alcohol, another liquid volatile oil scarcely soluble in water, a peculiar principle not yet determined. Peckolt's analysis, quoted in the proceedings of the American Pharmaceutical Association of 1868, is as follows:—Caffein, yellow fixed oil, resin, nitrogenous extractive, red colouring matter, amorphous bitter principle, guaranic acid, saponin, gallic acid, tannic acid (iron greening,) albumen, starch, glucose, dextrine, pectin, mucilage, malic acid and cellulose.

Guaranin is composed of $C_{7}H_{10}N_{4}O_{2} + Q H_{2} O$; it is isomeric and said to be identical with *caffein* obtained from the Caffea Arabica; with *theïn* derived from the Thea Chinensis; and also with *psoralein*, the active principle of the Psoralea glandulosa or Paraguay tea. This is an interesting fact, that the same principle should be found to exist in four different plants belonging to as many distinct natural families.

Coffee contains from ½—1 per cent.; gunpowder tea from 1—3 per cent., black contains more than green tea; Paraguay tea from 1—2 per cent., and guarana 5.07 per cent., or twice as much as the best tea, according to Dr. Stenhouse.

This alkaloid may be prepared by precipitating the tannic acid from a hot infusion of tea, coffee, &c., with a solution of subacetate of lead, boiling the mixture, filtering, removing the excess of lead by hydrosulphuric or sulphuric acid, evaporating the clear liquor, and re-crystallizing the product.

A. Vogel's, jun., method is as follows: powdered coffee is extracted by commercial benzol, this is distilled off, and leaves an oil and caffein behind; the oil

is removed by a little ether or by water, from which latter liquid the alkaloid crystallizes on cooling.

This principle crystallizes in needles, losing two molecules of water of crystallization at 302° F; it melts at 352°, and sublimes at 725° without decomposition: it is soluble in ether, alcohol, chloroform, and in hot water; cold water dissolves but little. If boiled with nitric acid, the yellow liquid assumes a purple color.

Its salts and double salts are well defined and crystallizable, some are decomposed by water. It produces a crystalline precipitate with silver nitrate; and with tannic acid a white tannate is thrown down which is soluble in boiling water.

When this alkaloid is distilled with caustic baryta, the distillate contains ammonia and methylamina, and there remains in the retort a new base, *caffeidina*, $C_7 H_{12} N_4 O_2$, which is not precipitated by solutions of ammonia or potash, but is separated in oily drops by solid potassa.

This vegetable alkaloid, guaranin or caffain, is not alimentary but *tonic*, and in large doses proves *poisonous*. Thus in dogs and in rabbits ⅘ths of a grain caused purging, vomiting, followed by tonic and clonic spasms and terminating in death; it paralyzes the nervous system, and is said to act chiefly upon the ganglionic or sympathetic, and but slightly on the brain. It has been occasionally employed, however, as a medicine; thus Thompson has used it in doses of one to five grains in the low stages of *typhoid fever* with marked success, he also recommends it in *hemicrania*, *neuralgia*, and in *relapsing fever*. Its solution in citric acid has been administered with great advantage in the treatment of *sick-headache*. (This solution is often regarded as containing the citrate, the existence of which, however, is denied by Hager.) In the form of arseniate it has also been employed by Dr. Gastriel of Cairo, in Egypt, as a substitute for quinia in *intermittents*; these comprise all the diseases in which it has been reported to have been employed.

Guarana itself is recommended medicinally as a *tonic*, *astringent*, *antispasmodic*, and a *nervine anodyne*. It has long been used in Brazil, as I had occasion to mention before, for the prevention and cure of *diarrhœa* and *dysentery*, whether *acute* or *chronic*. Dr. Gavrelle employed it also in the *diarrhœa of phthisis*, in *paralysis*, *chlorosis*, *tedious convalescence*, generally as a tonic; and Dr. Ritchie, a surgeon in the Royal Navy, recommended it highly in irritation of the *urinary* passages and *bladder*, attributing to it powers analogous to those appertaining to buchu, uva ursi, and pareira brava. That it possesses astringent or diuretic properties superior to those of our ordinary pharmacopœial remedies, however, remains yet to be proved.

But it is not on account of its tonic or astringent actions that it is now brought under our notice, but in consequence of its influence in preventing attacks of sick and nervous headaches. That it does so very often, we have abundant proof; thus in the report of the Amer. Pharm. Assoc. for 1873 we meet with the following:—"The efficacy of guarana in relieving incipient headache is well established; and again, in 1874, in the report of the Committee on the Drug market, we find it says:—" This article is now meeting with much demand, as it has proved very efficacious in various forms of headache; and in the *Lancet*, in a letter from Dr. Wilkes to which I alluded before, who says,—" I wish to draw the attention of the profession to guarana as a remedy for sick headache, and at the same time to ask for the experience of those who may already have some acquaintance with the drug. My own knowledge of it dates about two years back, when, after the appearance of a lecture of mine upon sick headache, I received a letter from Mr. Helmcken, of British Columbia, enclosing two powders, which he recommended to me with much confidence, as able to cure the complaint. He said that, having heard much of the remedy, 'I resolved to try the medicine upon one of my patients, who was always coming to me with sick headache; and sure enough it acted like a charm, and in place of suffering for twenty hours or so, the headache had disappeared in a couple. This accords with what others have told me.' Upon my first headache after the receipt of Mr. Helmcken's letter, I took the powder, but with only doubtful effect. I therefore did no more than casually mention the medicine to my friends, but did not recommend it. A few weeks ago, after the appearance of a second communication of mine in the *Journal* upon the same complaint, I received a letter from Dr. Wood,* of Montreal, in which he also recommended guarana as a remedy for headache, and gave a history of his own personal sufferings, and the relief which he had obtained. He says: 'By taking one of these powders, and remaining quiet when I have felt premonitory symptoms by beginning of pain always in the right temple, (headache on the other side, or in any other part of the head, I never mind), I have carried off the attack, and, with the first box, absolutely put it off for two months—something which never occurred in my life before.' Upon so good an authority, I determined to

* Should read Mr. Wood.—Ed. Record.

try the remedy in a more systematic manner, and requested my chemist to procure me a packet of the powders. These I have recommended to several patients and friends; and the result is so encouraging, that I have hastened to suggest their trial to my professional brethren. One lady speaks most enthusiastically of their power, as she has now, on two separate occasions, had her headache arrested by their use. The drug has long been known, for mention is made of it in English, and French pharmacologies, but appears never to have come into general use."

The first person for whom I prescribed this remedy was a professional singer who had been subject to frequent and agonizing attacks of sick headache, which nothing had ever relieved but time; he took one powder, and was enabled to fulfil his engagement and appear the same evening, which was of importance to him financially, as it was his benefit-night. He has ever since kept a supply on hand. The success following its use in this case induced me to prescribe it frequently since, and the result has almost invariably been as favourable, though it occasionally fails, but why, we cannot say. The remedy perhaps has not been sufficiently persisted in, as the following case would appear to suggest: Mr. C., a druggist of this city, received a severe shock to the nervous system, from hearing of the sudden death of his partner. For eighteen months afterwards scarcely a day passed without his experiencing a heavy dull pain in the occipital region, causing confusion of ideas, and a feeling of dullness, stupidity, and general *malaise;* he tried the ordinary commercial guarana in thirty grain doses, and experienced relief; he persisted in the remedy for upwards of three months, taking it twice and thrice daily and is now perfectly recovered. This is the only case where I have known the remedy to have been taken continuously for any long time. He states that after having swallowed the powder but a short time, he felt as if a weight had been removed from his head, and an exhilirating effect, much as if produced by a glass of wine.

Its influence over the nervous system is thought by many to resemble that of tea or coffee; and, indeed, it is regarded by some as a powerful rival of these, while others scout the idea of its ever supplanting these favourites for the purpose of a beverage; (Amer. Pharm. Ass. Report, 1873.) Yet in answer to this we find Savory and More, of London, have just brought out a preparation called guarana chocolate, which is certain of a sale when introduced by such a respectable firm of pharmaceutists; besides which, there must have been the demand, or they would never have embarked in the enterprise.

With regard to its action on the nervous system as compared with tea and coffee, I might mention that Mr. Henry R. Gray, president of the Montreal College of Pharmacy, who has been in the habit of using this remedy frequently for a couple of years has furnished me with the following memoranda, especting its effects upon himself.

1st. That he considers in its physiological effects it is undoubtedly more closely allied to tea than to coffee; for coffee always produces in his case headache, while tea relieves it, and guarana nearly always cures it, particularly if taken early, as when the head ache is coming on. He also states that he has met with several persons, whose experience agree with his on this point.

2ndly. That the guarana of commerce, as ordinarily met with, does not appear to produce the same degree of effect as Grimault's, who makes this remedy a specialty.

3rdly. That ordinary commercial guarana frequently produces griping pain in the bowels, which though slight, and not severe, is nevertheless noticeable, while with Grimault's this peculiarity is not observable.

4thly. On examining different samples, in order to ascertain, if possible, the cause of this difference in action, he found in all, more or less abundantly, with the exception of Grimault's, a substance resembling magnetic iron ore at all events it was iron in some mineral form.

One of my patients remarking the similarity in action between guarana and tea, conceived the idea that there must be some principle insoluble in water which necessitated the swallowing of the powder, as the infusion of paullinia alone did not produce the relief procured from the powder; and, wishing to see whether tea under the same circumstances would produce similar results, he pulverized some and took about twenty grains, and says, he experienced the same soothing effect as from guarana, but in a less marked degree, perhaps in consequence of the dose being so much smaller.

It stimulates the cerebral functions and exhilirates generally, it invigorates the intellect, and is followed by no corresponding depression, as with ordinary narcotics. On the pulse it appears to act as a sedative; and no apparent change is noticeable in the urine. The headache usually disappears in from twenty minutes to an hour and a half. Dr. Leconte, of Paris, says that this remedy never fails unless improperly prepared, adulterated, or injudiciously administered.

Without entering into a description of the many forms of headache, hemicrania, and neuralgia with which we meet, and without dwelling upon the various speculations and theories that have been advanced as to the actual seat and condition of the tissues wherein the pain is experienced' subjects of great importance and interest it is true, but which could not be sufficiently contracted or condensed to be embraced within the limits of an ordinary lecture–I must content myself with merely mentioning those forms where it has actually proved successfu,l or where it is likely to be of service. These will be found to be comprised of those that have been called *bilious* and *nervous* headaches,the latter often taking on a hemicranial, neuralgic, or rheumatic character. In those forms due to intracranial *organic disease*, to. *plethora*, and to *syphilis* other remedies will be more appropriate, and guarana will be of little or of no use. But in those arising from stomach derangements want of tone, debility, indigestion, sluggish liver, exhaustion, over lactation, leucorrhœa, hysteria, mental excitement, worry, anxiety, and overwork of the brain, it will very often prove beneficial if not curative. Proper hygienic measures must be also adopted; the exciting cause removed, if practicable; the diet regulated, and any morbid condition of the blood, or organs corrected by appropriate remedies before a cure can be effected. Latterly it has been highly spoken of in cases of lumbago, often removing that troublesome complaint as rapidly, as it does headache; but here again it does not always succeed. It has also proved serviceable in some cases of chronic rheumatism, and a medical friend assures me that he frequently prescribes it in that affection. It is said to have cured cholera morbus after opium and astringents had been employed without making any impression on the disease. There is no doubt but that the better we become acquainted with it, the more virtues we will discover it to possess; and perhaps we may yet be able to discern the reasons why it sometimes fails, in the same subject that it often cures; but if we can only postpone an attack of headache or lumbago to a more convenient time, we will, to say the least, by this remedy, have gained a point of some consideration.

The powder may be administered in doses of from 30 to 120 grains with sweetened water an hour or less before a meal, or two hours after, and should no relief follow, this dose is to be repeated in two hours. In cases of headache it should be taken as early in the attack as possible; as its effect is more marked the sooner it is employed. Some infuse it in warm water and add milk and sugar, and drink as they would an ordinary cup of tea, yet it is preferable to take the powder in substance or to drink the grounds left in the tea-cup. When taken in a cup of chocolate the taste (though not disagreeable) is not perceptible. Beasley gives the following recipe for the prepartion of *chocolate with paullinia*: Take of paullinia 1 oz., chocolate 16oz., mix and form into a paste. This is used as a restorative in cases of debility, chlorosis, &c.

Deschatalus recommended an alcoholic extract because he considers that fluid the only solvent of its virtues, which he ordered to be prepared as follows: Take of powdered paullinia, at will; of alcohol, a sufficency. Introduce the powder into a displacement apparatus, and allow alcohol to pass through till the powder is exhausted, then distill off the spirit, and evaporate the residue to a proper consistence. The dose is 8—10 grs. during the day. From this extract the following preparations have been compounded in France, and used in cases of diarrhœa, dysentery, &c *Gavrelle's Paullinia Lozenges:*—Take of alcoholic extract of paullinia, 21 grains, of vanilla sugar, 500 grains; of mucilage of tragacanth, a sufficiency to form a mass, and divide into 10 grain lozenges. Dose, 16 to 20 grains during the day. *Dorvault's Syrups of Paullinia:*—Take of the extract, one part, of simple syrup, one hundred parts, and dissolve. Dose, half an ounce. *Gavrelle's pills of Paullinia:*—Powdered paullinia, a sufficiency; of mucilage of tragacanth, enough to form a mass, and divide into pills of ½ grains—5-10 to be taken when required.

Much of what I have reported in this paper has been gleaned from the observations of non-scientists; yet such evidence I consider exceedingly valuable, as they are untrammeled with conservative prejudices, with which the members of our profession are apt to be more or less tinctured, the result no doubt of repeated disappointments in using new and frequently over extolled remedies. Yet when we find that the statements of the laity are not at variance with the facts that are recorded regarding the substance under discussion, we are perfectly justified, I believe, in drawing our own conclusions from such statements; and though much of what is asserted may be erroneous, yet there cannot be any great difficulty in winnowing the wheat from the chaff by the scientific.

Case of Ptyalism—in a Dentist—from absorption of material used in filling teeth. By Mr. Casey A. Wood, Medical Student of Ottawa, Ont.

G. H., dentist of this city, aet. 23, was attacked on the 20th of April last by a severe headache.

As he had for a number of years past been subject to this very troublesome affection, (attributed to biliousness) nothing was thought of it, and in the expectation that it would, as usual, run its course within 24 hours, he was given pil. colocynth co. gr. viij., and a seidlitz powder. However, on the following day, (Wednesday) the headache had not decreased, and the patient had, in addition, a few rigors, accompanied by a pain in the back. The compound colocynth pill, instead of producing purgation, induced active emesis with violent vomiturition.

Towards evening his mouth became slightly sore, and the gums somewhat swollen. Two powders of guarana, (Grimault & Cie., Paris,) given at an interval of two hours, had but little effect in lessening the headache.

Thursday—Headache still continued. Gums became tenderer.

Friday—Towards the afternoon the pain in back and head disappeared, but the extreme sensibility of gums and soreness of the mouth increased.

Saturday—All the mouth-symptoms much aggravated. The tongue became coated with a thick yellowish-white fur. About noon, noticed an increased flow of saliva, which during the afternoon ceased for an hour or two, but again commenced in the evening.

Sunday—No change, except that the salivation had slightly increased and the tongue became so swollen as to make articulation difficult. The patient had, up to noon to-day, very little sleep, but, under the influence of morph. mur. gr. $\frac{1}{4}$, obtained several hours rest, being obliged to hold in his mouth a glass tube through which the saliva flowed into a dish placed for its reception.

Monday—To-day the ptyalism reached its maximum of intensity, and by evening had sensibly decreased.

Tuesday—Patient commenced to improve from this day. During the afternoon several small fissures were discovered at the anterior portion of the tongue, rendering attempts to speak both painful and difficult.

The salivation continued until the following Saturday, when it entirely ceased. The teeth did not become loose, but a dull pain was felt in them for several days.

It will be sufficient to say with regard to treatment, that it was the usual one on such occasions.

Carbolic acid was chosen as a wash for the mouth, proving, in the strength of one part to forty, very serviceable in allaying the irritation and removing the metellic fetor and taste, so characteristic of mercurialization.

With regard to the *cause* of the ptyalism, the constant habit of rubbing *on the* palms of the naked hands the amalgams of silver and mercury used in "plugging" teeth furnishes a true solution of the question.

Great numbers of teeth are filled with compositions of mercury with gold and silver, and when a dentist has a good practice, it is not difficult to imagine the absorption, at each time of rubbing the mercury with the silver or gold, of a portion of the first mentioned metal, infinitesimal though it be, and that it should continue to accumulate, producing, as in this case, mercurial salivation.

If dentists would place in the palm of the hand at each time of using mercury a small piece of oiled silk or gold beater's skin, the majority of the indolent ulcers and non-healing sores, not uncommon among dentists, would find a ready cure.

Ottawa, May 3rd, 1875.

Correspondence:

To the Editor of the Record:—

SHERBROOKE, May 24th, 1875.

DEAR SIR,—I saw an article in your last issue on hypodermic injection, in which that method of treatment in many cases was very justly lauded; but to some of the suggestions I beg to take exception, and particularly to the dose recommended, which is in my opinion—particularly if administered to a female—absolutely poisonous.

I intended noticing the communication when I read it, but was so busy I could not spare the time, and I am sorry to say I have mislaid the number, so that I write from memory only.

The gist of the article appeared to be the recommendation of a concentrated solution of morphine with a view to avoid the soreness sometimes induced by the injection of a larger quantity. I have used the hypodermic mode of medication, perhaps as much as almost any practitioner since its introduction, and, though using frequently from twenty to forty minims, have never produced an abscess, and my experience would lead me to suggest in all cases a much weaker solution than the one indicated in your article; in fact I would never inject less than twenty minims of solution of morphine, by which

means there is far less fear of giving an over-dose than when three or four minims only are used, as, of course, in this case one minim more than intended, and which may very readily be injected through any difficulty in the action of the syringe, would administer one-third or one-fourth more than intended, whereas, if one-twentieth more than intended be accidentally given, it would be of little or no consequence.

The dose, however, of half a grain of the hydrochlorate of morphine, as recommended in the article, is very far too large, and I have no hesitation in declaring it in many cases absolutely poisonous; my experience being that the action of morphine, when given hypodermically, is nearly or quite twice as powerful as when administered by the stomach. The preparations of morphine moreover are not always uniform, and in consequence of this, and in my experience the safer and pleasanter action of Battley's Sedative, I have for several years confined myself to this with the addition occasionally of one seventieth part of a grain of atropine.

I trust you will excuse my writing as strongly as I have done, as I feared the article might be acted on by some young or inexperienced practitioner, in which case there would, I am sure, be great danger of poisoning.

I remain,

Yours truly,

F. D. GILBERT. M.R.C.S.L.

Progress of Medical Science.

REMARKS ON THE ACTION OF CROTON-CHLORAL ON MEGRIM.

By Sydney Ringer, M.D., Professor of Materia Medica in University College, and Physician to University College Hospital.

It is hardly necessary to observe that under the term megrim I include those affections commonly called sick headache, bilious headache, nervous sick headache, and hemicrania. The most characteristic and commonest symptoms of megrim are headache and sickness; but, in a typical case, these symptoms are preceded by other significant and interesting phenomena. At the onset of an attack, a peculiar affection of the sight first occurs, soon to be followed by perversion of the sense of touch and of the muscular sense in the arms and legs; by disordered speech and defective ideation; the headache then comes on, and, as it becomes intensified, nausea gradually sets in.

The affection of the sight may consist of mere absence of vision, beginning at the centre or circumference of the field of sight. When at the circumference, the defect is generally situate to the right or left of the axis of vision. From the centre of the visual field, the blind spot gradually expands, and as it enlarges it then clears up in the centre, and so gradually disappears to the circumference. As the blind spot expands, its margin is often lighted up with spectra variously described as glimmering, dazzling, bright zig-zag lines, coruscations, etc.

In ten minutes to half an hour, on one or both sides of the body, numbness and loss of sensibility occur, followed by tingling, formication, "pins and needles," felt most distinctly in the hands, tongue, and lips. Speech is commonly disordered, the aberration in some cases being simply memorial, in others simply motorial; in others, again, these two derangements of speech are more or less combined. In other words, one patient forgets his words, another forgets how to utter them, whilst a third manifests a combination of these two defects. There is, too, loss of memory, confusion of ideas, and a bewildering feeling, as if the patient were going out of his mind. In half an hour or a little longer, these phenomena are followed by headache, which is generally felt on waking in the morning; it is at first slight, but intensifies till it may become most severe, indeed, almost unbearable. It affects one or both brows, and beginning at one spot, gradually extends, till it may involve the greater part of the head. The throbbing, stabbing, cutting, boring pain is increased by movement, noise, light, smells, or food. When the area of pain is very limited, the complaint is termed *clavus*. As the pain subsides, or even during the whole attack, the patient may suffer dull or shooting pains in the eye of the affected side. There is much tenderness of the scalp during and after an attack.

Throughout the attack, the patient complains of nausea, which may be slight, but usually increases, and, when the pain is at its worst, ends in vomiting, which may be severe and prolonged, causing much prostration; yet occasionally vomiting affords relief.

Lasting a few hours, the whole day, or even two or three days, the attack generally ends in calm refreshing sleep, but sometimes it gradually subsides or ends abruptly in vomiting, perspiration, or, more rarely, a copious flow of tears. The attack may be preceded and followed by very obstinate constipation or by diarrhœa, the liquid motions being in some instances pale, in others of a deep brown, mahogany colour. Before and after the attack, there is often much dusky discoloration around the eyes.

It is now almost universally held that megrim is an affection of some part of the nervous centre. Dr. Liveing, to whose exhaustive work I am considerably indebted, considers that, in a typical case, the disturbance takes place first in the optic thalamus, and passes backwards and downwards, reaching to the nucleus of the vagus below; for, as he observes, in a typical seizure, the visual disorder is always the initial symptom, the headache the middle, and the vomiting last. Where morbid intellectual phenomena and disorder of speech occur, the affection radiates from the thalamus to the hemispheric ganglia, and, where emotional phenomena occur, to the mesocephale.

Though the affection is seated in the nervous centres, yet it must be recollected that the frequency and severity of the attacks both depend on peripheral exciting causes, due to the stomach, intestines, liver, womb, etc. Even when the affection is strongly developed and the periodic attack recurs apparently spontaneously, the seizures may be rendered more frequent and severe by remote exciting causes; nay, in many cases, the affection may remain so slight, that it lies dormant till roused into activity by some near or distant irritation, on removing which the seizures altogether cease.

The successful treatment of megrim depends less on change to be effected in the disordered nervous centres than on removal of the exciting cause. The treatment of megrim, therefore, falls under three heads:

1. The treatment of the central nervous affection;
2. The removal of prevention of exciting causes;
3. The treatment of the paroxysm.

Many remedies act in a twofold or even threefold way. Thus bromide of potassium is often extremely serviceable in two ways. It is very useful in those cases where the seizure is due to uterine disturbance, as in menorrhagia and dysmenorrhœa. Sometimes the attacks are more severe and frequent, arising from the exhausted state of the nervous system. Perhaps, from overlong town residence, or from mental troubles, the patient becomes irritable, depressed, nervous, excitable, with broken sleep, harassed by dreams. The ensuing general depression increases the headache. Now, bromide of potassium soothes the patient, and, by promoting refreshing sleep, strengthens the nervous system, and thus lessens the frequency and severity of the headaches. Bromide of potassium, moreover, is serviceable in the paroxysm itself, for it may produce several hours' sleep, from which the patient awakes free from headache.

The pain of megrim is situated in the fifth nerve; and, remembering how closely megrim is allied to neuralgia, and how useful hydrate of croton-chloral is in facial neuralgia, I have been induced to try this remedy for the seizures of megrim, and have found it useful in cases of which the following may be taken as a type.

A woman has been subject for years to nervous sick-headache; then, owing to some great trouble, or to excitement, fatigue, or flooding, or prolonged suckling, or most frequently at the change of life, the headache becomes much more severe. The headache is continuous for weeks, perhaps months, but is intensified greatly by fatigue, excitement, or at the catamenial period. If not actually continuous, the headache comes on daily, lasting, perhaps, for many hours, or several attacks may each day occur. The pain is often intense, and whereas, previously to the worst form of headache, the pain was probably limited to one bone, it now affects both, and perhaps the greater part of the head. The skin is generally very tender. There is also a sensation of bewilderment, or, as some term it, a stupid headache, and the patient often says she feels as if she should "go out of her mind". The sight may be dim, especially during the exacerbations of pain. Some patients of this class are very excitable and irritable, and are upset with the slightest noise. Nausea and even severe vomiting may occur with each exacerbation of the pain. Five grains of croton-chloral every three hours, or even oftener, will give in most cases considerable relief. I need hardly say, that the drug does not entirely free the patient from her attacks; but, in one or two days, the pain ceases to be continuous, then the attacks recur, but only once or twice a week, the interval gradually extending till an onset occurs only every week, then about every fortnight, or even longer, till the illness assumes its old type and periodicity. In some cases, a week's treatment suffices to bring back the headache to its original type of an attack once in three or four weeks. Then the croton-chloral appears to be far less serviceable, manifesting but slight effect on the periodical attacks. In many cases of ordinary periodical headache, the patients say that, in the milder forms, the drug distinctly lessens the severity and duration, but in the severer forms it is without effect, even when sickness is absent. In those cases accompanied by severe vomiting and retching, croton-chloral is useless, being speedily rejected.

Croton-chloral, I have found, will relieve the slight attacks experienced by some delicate and nervous women after any slight fatigue or excitement.

In the continuous sick headache just described, as the pain grows better so the cutaneous tenderness disappears. It seems to me that, in many instances, two kinds of headache coexist, one sometimes predominating, sometimes the other. One appears due to affection of the cutaneous nerves, and is generally accompanied by tenderness. Patients describe the other as a "stupid headache", "a feeling of bewilderment", "a bewildering headache". After the dispersion of the first form by croton-chloral, this stupid headache often continues, but may ordinarily be relieved by bromide of potassium. Indeed, in many cases, I have found it useful to combine these remedies.

TREATMENT OF BURNS AND SCALDS.

The following observations by Dr. John Morris, of Baltimore, in *The Sanitarian*, may be read with benefit:

The first step is to remove the clothing from the patient. As rest is all important, this should not be done by the old plan of taking it off piece by piece, but by removing it by a few skilful cuts with a knife or scissors. The patient should then be instantly wrapped in a blanket, or blankets, or large masses of cotton, if at hand, so as to create heat, and thus re-establish the circulation.

Patients frequently exhaust themselves by their outcries, and to guard against the depression of nervous force, brought about by this cause, anæsthetics should at once be employed. Chloroform or ether should be administered in sufficient quantity to induce partial, or, if necessary, complete unconsciousness. If these agents are not at hand, large doses of opium should be given. This is all important, as the patient

must not be allowed to suffer if we wish to conserve the powers of life. The dressing should be made while the patient is in this state.

Carron oil is utterly useless, if not injurious. Of all the oils, linseed, in our opinion, is the worst, as it is the soonest to be absorbed by the atmosphere, and become dry. In cases of bad scalds of children, in which a large part of the body is involved, we know no dressing so good as a bran bed, that is, a bed of bran, in which the patient may lie, and be entirely covered with a thick investment of the same. This dressing has the advantage of not requiring change, for each day, as the moist particles fall off they can be replaced with fresh bran, without disturbing the patient. One of the severest cases of scald we ever met recovered by this treatment.

A great deal of harm is done to patients by frequent dressings, and any method that obviates this is most desirable. Patients frequently are exposed for hours to the action of the air, suffering unnecessary pain, by the old and tedious process of dressing. The air itself does no injury, but the extreme hyperæsthesia of the skin produces a state of nervous tremor which leads to exhaustion. Any one who has seen a case of hydrophobia can readily understand this condition of skin hyperæsthesia.

In burns of the extremities there is no immediate application so serviceable to relieve pain as hot or cold water, and, strange to say, they act equally well. If the appliances are at hand, the cold bath as practiced by Hebra is the best. Those who have visited his wards in Vienna, and seen his treatment of burns by a bed made of straps, in a cold bath, can bear witness to the successful and scientific character of this procedure. For small burns, warm water acts admirably.

We have said before, that anæsthetics should be employed in all burns of an extensive character, but, before their effect is allowed to pass off, applications should be made to produce anæsthesia of the parts affected. We have heretofore used for this purpose a solution of Labarreque's chloride of soda, of the strength of an ounce to a pint of water, adding two or three grains of morphia to the solution. This has generally given great relief to the patient—indeed, in a short time, destroying all the extreme sensibility. Carbolic acid has been highly recommended as a local anæsthetic, and it may be possible that a solution of it in water, in combination with morphia, might act still better.

After a free application of either of these solutions the parts may be thickly covered with cotton batting. This helps to counterbalance the chilliness, and gives a comparative degree of comfort.

In superficial burns, of a limited extent, nothing is required but simple cold-water dressing.

Brandy should not be administered whenever opium or ether can be obtained, as it remotely exercises a depressing influence. Strong hot coffee is the best drink that can possibly be given to counteract nervous exhaustion, or remedy the effects of shock. If brandy is given at all, it should be given with coffee. All earthy applications, such as chalk, calaminaria, etc., should be avoided, as they are not only therapeutically inert, but may interfere with the process of restoration.

Local stimulation, such as the application of turpentine, or a solution of nitrate of silver, as practiced at St. Bartholomew Hospital, is no doubt proper treatment in the second stage of burns, but as this belongs more especially to the domain of surgery, we forbear to discuss it, as well as the treatment of the after consequences of burns, such as ulceration of the bowels, particularly of Peyer's glands, congestion of the lungs, cicatricial contraction, etc.

In conclusion, we will briefly sum up the recommendations before suggested:

1. Remove the clothing by cutting it from the body.
2. Wrap the patient in blankets.
3. If pain be excessive administer chloroform, ether or large doses of opium, and let the necessary dressing be made while the patient is in a state of partial or total insensibility.
4. Produce anæsthesia of the burned or scalded parts by the application of a solution of carbolic acid and morphia. (This solution can be made in almond or olive oil.)
5. After this, wrap the patient in masses of cotton batting.
6. Avoid brandy, and give coffee as a stimulant.

If these simple rules be followed much suffering may be alleviated, and many a life saved, which otherwise would be lost by the ignorance and mismanagement of attendants.—*Medical and Surgical Reporter.*

CLINICAL LECTURE ON PARACENTESIS ABDOMINIS, IN CASES OF CIRRHOSIS OF THE LIVER.

By Thomas Hayden, F.C.P.,

Physician to the Mater Misericordiæ Hospital

From Notes taken by Mr. Davis, *Resident Clinical Clerk.*

Gentlemen—Two cases of cirrhosis of the liver in which tapping has been repeatedly performed with satisfactory results, have been recently under your notice. These cases may be profitably contrasted, not only in regard to the symptoms exhibited, but also with reference to the effect of paracentesis upon the progress of the disease.

The first case I shall direct your attention to is that of Michael B——, a discharged soldier, of intemperate habits, who was admitted under my care on the 8th of last October. He had been subject to epistaxis, had hæmatemesis, and bleeding from the bowels. At the date of admittance he was much wasted, the abdomen was distended with liquid, and the superficial abdominal and inferior thoracic veins were enlarged and turgid. The skin and conjunctiva were slightly jaundiced; the bowels were constipated, and the urine was defective in quantity, of low specific gravity, and contained albumen. He suffered much from dyspnœa, owing to the pressure of the abdominal fluid upon the diaphragm; when he assumed the recumbent posture, his face and neck immediately became congested, and he was forced to sit up. The pulse was small and quick, and the heart was displaced upwards,

its apex pulsating at the level of the nipple, but in the normal vertical line. From this latter circumstance I was led to diagnose old adhesions of the pericardium at the base.

On the 16*th*, twenty pints of serum of sp. gr. 1·009, and containing a large quantity of albumen, were taken from the abdomen by means of a large trocar and cannula. The patient, who was constitutionally nervous, exhibited great alarm at the prospect of the operation; nevertheless he bore it well, and experienced great relief from it.

The object which I hoped to attain by tapping was twofold: namely, to relieve embarrassment of breathing, and to induce a more copious secretion of urine, by moving liquid pressure from the diaphragm and the renal veins.

The former of these objects was completely accomplished, and the latter partially; the man was enabled to breathe, even in the recumbent posture, with ease, and, for a week after the operation, there was a notable increase in the secretion of urine.

The relief, however, was only temporary. The operation was repeated on the 6th of November, when sixteen pints of liquid, highly albuminous of acid reaction, and 1·009 sp. gr., were removed. On this occasion there was complete suppression of urine for forty-eight hours after the operation. A diuretic was now administered, consisting of spirit of juniper, ℥ ii; spirit of nitrous ether, ℥ i; nitrate of potass, ℥ i; and water, to ℥ viii. An ounce to be taken every third hour. The kidneys again acted: but on the 14th, owing to a partial suppression of urine, it was deemed necessary to prescribe gr. v. of blue pill twice daily. This had the desired effect, but on the 21st, it was found necessary to suspend the use of mercury, slight salivation having appeared. The urine secreted during the previous twenty-four hours amounted to two pints.

On the 27*th*, there was again a large accumulation of liquid in the peritoneum; the feet were now œdematous, and purpuric mottling appeared over the surface. On the 29th, there was copious epistaxis.

Paracentesis was performed for the third time on the 6th of December. Twenty-four pints of pale fluid, of acid reaction, sp. gr. 1·011, and highly albuminous, were removed. There was again on the 9th, a large accumulation of liquid in the abdomen, and the secretion of urine was in defect. The man now rapidly sank, and on the 20th he died.

Thus, fifty pints of fluid were removed by tapping, within a period of seventy-three days; the interval between the first and second operations having been twenty-one, and that between the second and third, thirty days.

On examination of the body, the liver was found to be reduced in volume, nodular on the surface, and pale in colour; the fibrous tissue was in excess, and the hepatic cells exhibited a large proporation of oil. The peritoneum was distended with serum, and the intestines were, in several places, firmly agglutinated by old adhesions. The kidneys were likewise reduced in volume, and cirrhosed. The spleen was enlarged and adherent to the diaphragm, and its capsule was thick and opaque.

The case presents a typical example of cirrhosis of the liver and kidneys; and further, it shows, not only the relief from urgent symptoms which paracentesis is capable of affording, but also the safety of the operation, even though repeatedly performed.

The next case is exceptional in many respects; there is no history of intemperance, there has not been hæmatemesis or melæna; enlargement of the spleen cannot be detected; and lastly, the patient's health improved, and there had been no return of ascites for a period of eight weeks after the first effectual tapping.

The history of the case is shortly as follows. The patient, Catherine M ——, a poor, industrious woman, unmarried, aged 50 years, was admitted into Hospital under my care on the 12th of September last. Her health had been good up to six weeks previous to that date; she then complained of a feeling of uneasiness—rather than of pain—in the abdomen, constipation, loss of appetite, and progressive debility.

When admitted she was sallow and emaciated, the feet were slightly swollen; there was ascites, and the superficial veins of the abdomen were enlarged. In the recumbent posture respiration was much embarrassed, owing to the extreme distension of the abdomen; the veins of the neck, forehead and temples being remarkably turgid. The operation of paracentesis having been decided upon, the pneumatic aspirator was used on the 15th, and again on the 16th of September. By means of this instrument about seven pints and a-half of liquid were removed on each of these occasions, with comparatively little pain or disturbance to the patient. The process was, however, too tedious and exhausting to the sufferer; and therefore, on the 19th, the trocar and cannula were used, and eighteen pints of liquid were removed. After the operation I made a careful examination of the abdomen by palpation, and failed to detect enlargement of any of the viscera. The patient now rapidly improved, under treatment with mild tonics and diuretics she gained flesh, and the œdema of the feet disappeared; there was no return of the ascites, and she was discharged on the 11th of November in comparatively good health.

She was again admitted on the 8th January, 1875, all her former symptoms having reappeared. A few days subsequently eighteen pints of liquid were removed by paracentesis, on the 8th of February, seventeen pints more were taken, and on the 23rd twelve pints, the fluid on both the latter occasions being slightly tinged with blood. Thus, the total quantity of serum removed by paracentesis amounted to eighty pints, or ten gallons.

Notwithstanding the ultimate issue to be looked forward to, and within a period not very remote from the present, this case is worthy of being recorded as showing, not only the safety of paracentesis, but also the temporary benefit by relief from, urgent symptoms, and postponement of the fatal issue which it is capable of affording.

CONCLUSIONS FROM THE STUDY OF FOUR HUNDRED AND FIFTEEN CASES OF TETANUS.

Dr. D. W. Yandell (*American Practitioner*) reaches the following conclusions from the study of four hundred and fifteen cases of tetanus:

(1) Tetanus occurs in males in the proportion of four to one, and tends to recovery oftenest in females.

(2) It is most fatal in persons under ten years of age—is least fatal between ten and twenty.

(3) Traumatic tetanus usually supervenes between four and nine days after the injury, and these cases represent the largest mortality.

(4) Recoveries have been usual in cases in which the disease occurs subsequent to nine days after the injury.

(5) When the symptoms last fourteen days recovery is the rule and death the exception—*apparently independent of treatment.*

(6) Tetanus appearing in the puerperal state is most fatal.

(7) Chloroform, up to this time, has yielded the largest percentage of cures.

ITCH IN PRIVATE AND IN PUBLIC PRACTICE AND ITS TREATMENT.

BY TILBURY FOX, M.D., F.R.C.P.

Physician to the Department for Skin-Diseases of University College, Hospital.

GENTLEMEN,—There are certain differences in the cases of itch that come under our treatment in public and in private practice respectively, to which I wish particularly to direct your attention. By public practice, I mean such as hospital, infirmary, and Poor-law practice, amongst the poorer classes. The matter is one of practical importance to you. You know that, in describing scabies to you, I do not follow the usual method of books, and divide the disease into papular, vesicular, and pustular scabies, and so forth; but I speak of the disease as consisting in an *essential* element or lesion, the acarus in and with its furrow, and certain *accidental* concomitants, which result as consequences of the irritation set up, and the scratching practised for the relief of the latter; of, in fact, the acarian furrow and imbedded acarus, and the results of irritation. These latter vary in kind, and include hyperæmic papillæ and follicles, vesicles, pustules, and excoriations, etc. Now, in private practice amongst the better classes, the differences in cases of scabies, as compared with those observed in hospital practice, are those of *degree*, not kind, and have reference chiefly to the *accidental* concomitants, and only slightly to the essential lesion of scabies.

In private practice, cases are occasionally met with equal in severity to any that are seen in public practice; but, on the other hand, as the rule, they are not so severe, and the disease is not so extensive, and *very frequently in private practice instances come under observation in which the accidentals of scabies are scarcely if at all marked.* There are certain amount of itching, and an acarus or two here and there, and nothing more; and such cases are often erroneously diagnosed. There are many instances of scabies only a slight shade worse; a few acarian furrows, with a few papulations.

The variations are due to several causes, chiefly to the observance of greater cleanliness, the seeking of medical advice earlier (so that the disease has not time to put on the aspect of severity), and to the better nutrition, amongst the better to do, as compared with the poor classes. Cleanliness has greatest influence, because it is a great check to the development, and migration from part to part, of the acari; and malnutrition amongst the poor favours the development of the pustular concomitants; and, lastly, the longer the disease lasts, the greater of course, is the scratching. When want of cleanliness, much scratching, and malnutrition go together, the worst cases of scabies occur, and they may now and then, as I have said, be met with in private practice. But, inasmuch as private patients are more cleanly than public ones, seek advice earlier, and are well fed, scabies amongst them occurs in its least expressed form. But even when the disease has existed some time, it is surprising how slightly marked the disease is in some cases, on account of the extreme cleanliness observed and the repeated washings practised by private patients.

It is with these slighter cases of scabies that I wish to deal specially—with those in which a solitary or a few acari are present, and very little else. A hasty observer may readily overlook the nature of such cases as those to which I now refer more particularly. I occasionally see instances of scabies which, at first sight, would seem to be instances of pruritus simply. There are two circumstances, however, about them, which should always put you upon your guard. The one is the seat of the pruritus—viz., the front of the abdomen, the penis, the inner and upper part of the thigh, and the front of the forearms; and the other is the occurrence of the pruritus especially, or perhaps only, at night, when the sufferer gets warm beneath the clothes. If careful examination in such cases be made, a reddish papulation may be detected along the upper line of the penis, or a solitary acarian furrow at one of the interdigital spaces or about the wrist; and this may not readily be found. I have often detected after careful search a stray furrow concealed by some of the little folds of skin in the interdigital spaces, which had escaped observation for a while. About the forearm may or may not be a few very delicate papulations that require, for their clear detection, that the skin should be looked at obliquely. Of course I mean that, in the cases I describe, acari have been actually extracted from these solitary cuniculi. There may be no eruption anywhere but on the penis, one or two acarian furrows being seated there. I have known such cases complicated be glandular swellings in the groin, and mistaken for syphilis; but, if careful examination be made, the acarian furrows may very plainly be made out; and the swelling accompanying the furrow lacks the in-

durated character of a true chancre, and is clearly simply inflammatory. In these cases of very slightly marked scabies, there is mostly no concomitant aid to diagnosis: I mean, for instance, no infection of others in the same family, etc. In a somewhat more marked degree, where there are a few acari and furrows about the interdigits, or the wrists, or perhaps the penis, with a small amount of rash on the forearms and the abdomen and thighs, the disease is very common. The acarian furrows, if the persons attacked be very cleanly, may readily be overlooked again, because they are not discoloured and rendered more distinctly visible by dirt; and frequently the acari are scratched away, and only the opened up cuniculus remains; but the form or skeleton of the cuniculus is seen. A little circular area, whence the cuticle which was upraised into the vesicle is gone, is seen; and, stretching away from this, is a line marked out on each side by loose cuticle, forming at one time the walls of the now opened up cuniculus. This is practically diagnostic of scabies. The papulation, if any, in these cases, about the forearms and the thighs, is made up of hyperæmic papillæ and follicles more or less scratched. There are no acari anywhere, but about the wrists and interdigits and the upper line of the penis. In these cases, the occurrence of itching at night, and the presence of fine papules on the anterior surface of the forearm and about the abdomen and thighs, at once suggest the probability of scabies being present.

The next degree of scabies of course does not differ from that ordinarily seen in public practice. I would say, then, as regards private practice, be very careful to satisfy yourselves that scabies is not at the bottom of what at first sight appears to be pruritus, which is intensified or developed at night, and is specially seated about the abdomen, the inner parts of the thighs, and the forearms or hands. I know that such cases are oftentimes scabies, but are not diagnosed correctly till the disease develops to a decidedly significant extent.

Of course, I have been speaking of the disease in adults. In the case of children, there may be no characteristic evidence of scabies about the hands, but only about the feet and buttocks. It is often difficult to detect cuniculi acari in very young children. But one very good guide is to be found in the character of the eruption. The disease most liable to be confounded with scabies is lichen urticatus. Well, that consists of wheals leaving behind papules. It may be said to be an uniform disease as regards eruption. There is no eruption besides the wheals and papulation. But in scabies the eruption is multiform. It is papular, vesicular, and pustular. In public practice, the scabies of children is marked by complicating ecthyma, as might be expected; but this is not so common in my experience in private practice.

Turning to scabies in public practice, I have only to observe, on this occasion, that the diagnosis of scabies, as ordinarily seen, is, as the rule, very easy. But, in rarer instances, the disease is so general, and so intermingled with excoriations and pruriginous papules, etc., that it presents the aspect rather of a pruriginous eczema, or phthiriasis mixed with eczema, than a scabies, since the eruption is not confined to the usual seats of itch-rash, but attacks the parts about the shoulders, the back, the lower part of the legs, and back of the forearm, as well. But there is one very safe guide in these cases; and that is, the history of the eruption, which shows that the latter began as scabies usually does, whilst acarian furrows will be detected, although most of them may be obscured by the free suppuration about them.

Treatment.—I have some special remarks to make in regard to the treatment of itch-cases in private and in public practice. You may very readily overtreat cases of itch in the former, for the reason that the disease is less severe, and the acari are not present over so large an area. In the mass of instances occurring in public practice, the disease exists, for the reasons I have before given, extensively over the surface, and acari have burrowed, not only about the hands, but in other parts of the body, especially the penis, the feet, the scrotum, and the abdomen perhaps. But in many cases in private practice, I mean amongst the well-to-do, the acari are *only* present at the interdigital spaces. Hence, it is a rule of prime importance in treating itch, to accurately determine, at the outset, how far the acari have disseminated themselves about the body. The reason is obvious. There is no need to apply parasiticides to parts in which acari do not exist, because the irritation and eruption elsewhere are due to sympathetic action; and these irritated parts will get well if the acari be destroyed, and they do not require the use of irritant remedies, such as parasiticides are, but soothing remedies. The practice is to apply the remedy to every part of the body where eruption exists in cases of itch. Clearly this is wrong, from what I have just said. My rule is this: if the disease be recent, if it be only slightly marked, if it began about the hands, and there be no cuniculi about the penis, I order the parasiticide to be rubbed into the interdigits, the palm of the hand, and the wrists, and I apply a soothing lotion to all other irritable parts of the body. If, however, there be—I am speaking of the slighter degrees of disease—cuniculi about the penis as well as the hand, and especially if the disease appeared to begin coincidently in point of time by itching about the lower part of the abdomen, then I apply the parasiticide to the hand and the penis; but even here I do not rub in the remedies very long (for three nights and three mornings), and I only, for precaution sake, let the patient smear the parasiticide upon the scrotum and the thighs, and for two or three times. I then order a soap bath, a change of linen, and I expect my patient to be quite well. The absence of pruritic irritation at night on the third day I take as a good test to the cure of the disease. In no case do I use any but parasiticides of moderate strength; half a drachm of sulphur to the ounce of lard is a sufficiently strong ointment, if sulphur be the remedy chosen.

But I will suppose that a well marked case of

itch comes before you in a well-to-do person. Here I recommend you not to depart from the rule I have laid down, viz., not to use your parasiticide generally to all the body, but to rub it freely in where the acari are, about the hands, the penis, and the scrotum, and to smear it gently on a few times only to the adjoining parts, to use it for three days only, and not in too great strength. This suffices to kill all acari, and the secondary results, viz., those of irritation, quickly subside. What frequently happens is, that the remedies kill the acari, but their use is persisted in longer than is necessary to effect this object, and only aggravates the already existing irritation and secondary eruption.

I repeat then, by way of summary, that in private practice, if the disease be slight and recent, use the parasiticide to the hands only, and soothe the other parts with some emollient or astringent lotion or ointment; and, in all other cases treat actively the hands and the parts about the genitals, but other parts only very slightly. In all cases, use remedies of moderate potency; at the end of three days leave off the parasiticide, give a soap and water bath, and see if the itching at night have ceased. If any vesicles appear between the fingers or about the wrists subsequently, these may be touched by the parasiticide. But if the latter be used for any length of time, the itching and irritation which had at first subsided, may increase, and this increase is often mistaken from an exaggeration of the itch, whereas it is that of the secondary pruritic eruption. In these cases, the skin becomes so irritable that it is a difficult matter to get it into a quiescent and healthy condition. *Over-treated cases of itch in private practice are by no means uncommon.*

I have one word to say, in conclusion, about bad cases in private and public practice, and the use of sulphur vapour-baths. In these bad cases, no doubt the acari are disseminated widely, and active treatment is needed. One remedy in common use is the sulphur-bath. I think a caution is needed as regards its use. I believe that it is abused. Though I much prefer a good soaking in a sulphuret of potassium bath, and the prescription of a mild parasiticide ointment, yet sulphur vapour-baths may be employed; but I think a single one properly administered—at most two—sufficient. I would have the patients well washed, first of all, with soap and water, and then put into the sulphur-bath. If the effect be that the pruritus at night is destroyed, I do not think it needful to repeat the bath, especially where the skin is much inflamed. You have seen, yourselves, many cases in which these baths have cured the actual scabies, but have set up a severe inflammation and pruritus in the skin that are most difficult to subdue. I have seen sulphur vapour-baths in itch, on that account, except where the disease is of the severest kind, because I believe all the acari can be destroyed by simpler and less irritating applications. In these cases the same rule holds good, I think, as in the simpler cases. It is easy to overtreat these cases. If, at the end of a few rubbings with mild sulphur or storax ointment the skin be less inflamed, less irritable, the vesicles and pustules drying up, and the patient get a good night. I consider that the itch itself is practically well, and I then treat by parasiticide the usual haunts of the acari and soothe other parts. But there is another very important matter in these cases. It is to keep the same linen on next the skin during the use of the parasiticides, and when a change of linen is made, to disinfect all the clothes by heat. I cannot now go into the question whether the acari dwell temporarily in the clothes. They can, no doubt, live long enough off the body in the clothes to be conveyed by clothes from one person to another, and, if so, then it is important to prevent these clothes from serving as the media of re-propagating the disease, or transmitting it from the infected to the healthy.

A MOTIVE TO DRUNKENNESS.

What we deem a very weighty suggestion, is made by Dr. Milner Fothergill, in the *West Riding Asylum Report*. He states that a chronic state of anæmia of the rain is the most common cause of dipsomania, especially in women. Alcohol, by increasing the force of the pulse and dilating the small arteries, removes for the time the feeling of weakness and utter wretchedness, which is one of the most prominent and distressing symptoms in all cases of defective cerebral nutrition. Dr. Fothergill has treated successfully cases of dipsomania by measures having for their object the filling of the vessels of the brain. The means employed for this purpose must, of course, depend on the cause of the anæmia, whether it is part of a general state, or due to cardiac weakness, or to valvular disease, etc.; iron digitalis, strychnia and belladonna are the most useful remedies, and, in bad cases, opium, in frequently repeated small doses, is of great service; it not only allays the restlessness and irritability which are generally present, but, by promoting dilatation of the small arteries of the brain, directly favors the nutrition of that organ.

Apropos of this subject, a writer in *Land and Water* recommends from Dr. Ringer, the use of capsicum, "given in doses of the tincture (ten drops), or the powder, twenty grains, to be taken before meals, or whenever depression or craving for alcohol arises." It also induces sleep in early stages of delirium tremens. It obviates the morning vomiting, removes the sinking at the pit of the stomach, the intense craving for stimulants, and promotes appetite and digestion. He adds:—"This treatment I have tried with great success in several cases, and in one in particular, that of a young man, whom no one, by any means in their power, could possibly keep from tippling. Shut up the spirits, he had a key made on the quiet, while his wife was away for a day—of course he sent her. Take away money he would 'tipple' on credit. He came under my care for bronchitis. I soon heard of his propensity, and tried Dr. Ringer's treatment. I began by giving him five drops of the tincture in a little syrup of orange-peel, and some orange bitters, and increased the dose of capsicum to twelve drops. He rapidly improved, and at the end of a month he was quite another man."

THE CANADA MEDICAL RECORD

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FRANCIS W. CAMPBELL, M.A., M.D. L.R.C.P., LOND

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MONTREAL, JUNE, 1875.

PHYSICIANS' FEES.

Sir George Burrows, in his Presidential Address at the Royal College of Physicians, called attention to the fact that the fee which was deemed a sufficient honorarium a century ago by no means adequately compensates the modern physician for the additional time and skill devoted to patients residing in distant parts of this vast town. In former times, Sir George said, "it was seldom that a Physician's practice extended beyond a circle of which the radius was a mile, the centre being his own home, and if patients resided beyond that circle the physician was almost sure to receive an extra fee. Now it is well known, that from the enormous distance to which the town has extended in all directions, the London physician may be called to patients residing in fashionable regions, at a distance of two miles or more from his home centre, and yet, unless some previous arrangement has been made, no extra fee is offered by patients, and can rarely be asked for, without giving rise to unpleasant explanations. All who have given any attentive thought to this subject must be aware that it is not only the greater distances which the physician is compelled to traverse, but also the diminished value of money, which renders the long-established conventional fee a much smaller remuneration to physicians of the present day than that always obtained by physicians of one or two generations before our own."

"The greatly advanced rent of houses in suitable localities, the increased expense of carriage and horses, the rise in the wages of servants, and the augmentation in the other expenses of living, place physician of the present day at a great pecuniary disadvantage compared with his predecessors of a past generation. While the price of nearly all that is required in the establishment of a metropolitan physician has steadily and greatly advanced, his services are still estimated by the same fee that was offered him when that money was worth far beyond its present value. How is this anomaly and social hardship to be remedied? I have long and frequently thought over this perplexing question, but I confess have not been able to lay down any principle which can be strictly carried out in the solution of the difficulty."

"The long-established customary fee to the physician is an honorarium, and long may it continue to be so. The College have never laid down any fixed regulations as to the amount of honorarium to be expected by the consulting physician; and I would not presume to advise the Fellows to deviate from that principle. But I think I have brought under your consideration many reasons why the senior and leading members of our order should endeavour to impress upon the community the reasonable expectations of physicians to be more liberally treated in the recognition of their professional services, when distance or other circumstances cause an extra demand on their time. It has appeared to me right in the interests of our order that this delicate question should be ventilated, although I cannot presume to indicate the best course to be pursued to remedy this increasing injustice." These remarks of Sir George apply with equal force to practioners in the large cities of our Dominion.

AMERICAN MEDICAL ASSOCIATION.

The annual meeting of this association, was held at Louisville, Kentucky, on the 4th, 5th and 6th of May. There was a very large attendance of members, about six hundred of them being present. Dr. LeBaron Botsford of St. John, New Brunswick, President of the Canadian Medical Association, was present and received a most cordial welcome, being accorded a seat on the platform without the formality of a resolution. After the President had delivered his address the following letter was read from the Canada Medical Association:

MONTREAL, APRIL 19, 1875.

W. B. Atkinson, Esq., M.D. Secretary American Medical Association:

DEAR SIR,—As the time is approaching for the meeting of the American Medical Association, I have much pleasure in forwarding a copy of a resolution unanimously adopted at the last meeting of the Canada Medical Association, held at Niagara Falls on the 5th and 6th of August, 1874, and request that you will kindly bring it to the notice of your association. The Canada Medical Association will meet this year at Halifax, Nova Scotia, on the first Wednesday in August, and would be much pleased

at seeing, as heretofore. delegates from your association, and I think it more than probable that our association will be represented at your meeting by at least two of our members, one of whom will be our president, Dr. Botsford, of St. John's, New Brunswick.

I am, dear sir, yours very truly,
A. H. DAVID, M.D., D.C.L.,
General Secretary Canadian Medical Association.

THE RESOLUTION.

The following is the substance of the resolution adopted by the Canada Medical Association :

Whereas, In consideration of the best interests of medical science. it is desirable that a medical conference should take place between the American and Canada Medical Associations, at some central point to be determined upon.

Resolved, That the American Medical Association be advised as to the desirability of thus becoming more intimately acquainted, and affording an opportunity for the discussion of medical and surgical subjects on a common basis.

Resolved, That in the event of such conference being determined upon, it would be desirable that the secretary of the Canada Medical Association notify the various local medical societies, so that our Dominion may take part in a manner worthy of the occasion, and in keeping with the interests of medical science.

The proposition contained in this letter was referred to the committee on nominations.

On the third day of the meeting the committee to whom the above resolutions had been referred, brought in the following, which were adopted.

WHEREAS, The Canada Medical Association has adopted and forwarded to this Association the above resolution, be it

Resolved, That a committee of thirteen be appointed by this Association, whose duty it shall be to confer with a like committee of the Canada Medical Association, at such time and place as agreed upon by the joint committee of the Association.

The following gentlemen were appointed a committee : Dr. S. D. Gross, Pennsylvania; Dr. John T. Hodgin, Missouri; Dr. Austin Flint, New York; Dr. Willougby Walling, Kentucky; Dr. T. C. Lane, California; Dr. Wirt Johnson, Mississippi; Dr. Wm. Brodie, Michigan; Dr. J. M. Toner, Washington; Dr. T. D. Cunningham, Virginia, Dr. E. Andrews, Illinois; Dr. Wm. A. Atkinson, Pennsylvania; Dr. H. I. Bowditch, Massachusetts; Dr. Robert Bartholow, Ohio.

The object of this conference is the consultation upon medical subjects and mutual exchange of views in regard to scientific topics, and the establishment of closer relations between the two national associations.

The following gentlemen were delegated to attend the next meeting of the Canada Medical Association, at Halifax, in August next to represent the American Medical Association :

Dr. S. D. Gross, Pennsylvania; Dr. Turner Anderson, Kentucky ; Dr. Willoughby Walling, Kentucky ; Dr. William B. Atkinson, Pennsylvania ; Dr. William Brodie, Michigan ; Dr. E. T. Easley, Texas.

VACCINATION IN MONTREAL.

In 1862 the City Council of Montreal appointed three medical men to be vaccinators for the City of Montreal, under a statute framed a short time previously. This trio were gradually increased till last year some twenty medical men constituted the board of vaccinators. Multiplicity to such an extent was not needed, and resulted in an utter want of concerted action and we believe we may add a failure of the object intended. Vaccination was performed somewhat erratically—in some sections very imperfectly —and the health officers not having any supervising control over this ponderous board, really never knew, and do not now know the extent of success which attended the vaccinators' work. This year the health committee have not nominated any board of vaccinators but have delegated the powers of vaccination to the two health officers, Drs. Dugdale and Larocque, giving one charge of the Eastern Section and the other the charge of the Western Section of the City. We believe they will zealously do their duty, but we think them insufficient for the work to be done. If last year the health committee appointed too many on its vaccination board, they have this year named too few. The error of this year is however, the best one to make—for what little will be done we are sure will be well done.

THE PHARMACEUTICAL ASSOCIATION OF THE PROVINCE OF QUEBEC.

This Association held a Conversazione, in the rooms of the Natural History Society, on the evening of the 8th instant to which were invited all the principal medical men of the City, with their ladies —also a large number of the friends of the association. The attendance was numerous, and we have to con-

gratulate the druggists upon the marked success which has attended their first entertainment. In the absence of the president. Henry Lyman, Esq., owing, to illness, Henry R. Gray, Esq., the Vice President, occupied the chair, supported by Nathan Mercer Esq., (Evans, Mercer & Co.) John Kerry Esq., (Kerry, Watson, & Co.) and Ebenezar Muir Esq., the registrar. The Chairman opened the meeting by reading the address which the President intended to have made had he been present, and was followed by Nathan Mercer, Esq., who spoke most effectively and eloquently, showing the steps the druggists had taken to secure the control of their own matters, and the struggle which they had to make before success crowned their efforts. Addresses were also delivered by His Worship the Mayor Dr. Hingston; Dr. Bibaud of Victoria College; Dr. Edwards, and Dr. Francis W. Campbell, of Bishop's College. A letter of apology was read from Dr. Howard, of McGill College. A number of microscopes were in operation, and the guests were regaled with refreshments during the evening.

COLLEGE OF PHYSICIANS AND SURGEONS OF LOWER CANADA.

The semi annual meeting of the Governors of the College was held on the 12th of May, in one of the halls of the Jacques Cartier Normal School, (Old Government House), Notre Dame Street, Montreal. The President, Dr. R. H. Russell, (Quebec), occupied the Chair, being supported by Dr. R. P. Howard and Dr. Marmette, the Vice-Presidents. There was also present Drs. Peltier and A. G. Belleau, Secretaries; Dr. Robillard, Treasurer and Registrar, and the following Governors: Drs. Jackson, G. E. Fenwick, Michaud, Tetu, Desjardins, Brigham, R. F. Rinfret, St. George, R. Landry, A. W. Hamilton, Gilbert, Gibson, Duchesneau, Tessier, Scott, Hingston, Rottot, Church, Weilbrenner, Chamberlain and Perrault.

The following gentlemen, graduates in medicine of Universities, upon presentation of their diplomas, received the license of the College to practice their profession.

McGill University.—W. Moffat, M.D., C.M., G. H. Monk, M.D., C.M., G. C. Duncan, M.D., C. M., B. Wales, M.D., C.M., W. J. Kearney, M.D., C.M., J. H. Christie, M.D., C.M., J. B. McConnel, M.D., C.M., J. J. E. Woods, M.D., C.M., S. A. Hickey, M.D., C.M., M. O. Ward, M.D., C. M., R. Howard, M.D., C.M., J. D. Clyne, M.D., C.M., B. J. Brassard, M.D., C.M.

Victoria University.—P. Gosselin, M.D., J. Chevalier, M.D., T. Bélanger, M.D., J. P. Leduc, M.D., J. M. Boileau, M.D., J. A. S. Brunelle, M. D., J. Manseau, M.D., A. Alexander, M.D., Z. Comtois, M.D., A. Piché, M.D., J. A. C. Lafraîcheur, M.D., A. Nadeau, M.D., E. Brun, M.D., C. Esnouf, M.D., A. Champagne, M.D., F. Filiatrault, M.D., O. P. Hêtu, M.D., D. A. Letourneau, M.D., J. Charbonneau, M.D., E. Larocque, M.D., M. Desrosiers Lafrenière, M.D., F. Trudel, M.D., E. Paquet, M.D., A. P. Lassisseraye, M.D., P. F. Casgrain, M.D., E. A. Guillemot, M.D., P. A. Allard, M.D., P. Privé, M.D., J. B. A. Lamarche, M.D., E. E. Fauteux, M.D.

Laval University.—J. N. Fraser, M.L., O. Lauriault, M.L., N. C. Beauchemin, M.L., J. E. Turcot, M.L., F. C. T. Lamoureux, M.L., G. Bolduc, M.L., J. L. L. Hamelin, M.L.

Bishop's University.—I. MacKay, C.M., M.D., W. M. Hunter, C.M., M.D., G. Dubuc, C.M., M.D.

Toronto University.—O. C. Brown, B.M.

Kingston University.—E. Chaffey, M.D.

Dr. A. G. Fenwick, late of Three Rivers, one of the Governors of the College, having removed his residence to the town of London, Ont., his resignation was received, and Dr. R. M. C. Mignault, of Yamaska, elected to replace him. Dr. Edmond Robillard placed his resignation of the office of Treasurer and Registrar in the hands of the College, and Dr. George E. Fenwick was elected to fill the vacancy thus created.

The Governors of the College were, at the conclusion of their session, entertained to luncheon at the City Club by the members of the College resident in Montreal.

UNIVERSITY OF LAVAL, QUEBEC.

The following gentlemen, after a severe examination by the Medical Faculty of Laval University, Quebec, have received the degree of M.D.: J. E, Turcot, St. Hyacinthe; J. Lamoureux, L'Assomption; A. E. Baudry, Pointe aux Trembles; G. Bolduc, St. Joachim, and L. Hamelin, of St. Barthelemi.

CLOSE OF OUR THIRD VOLUME.

With the issue of our next number, the third volume of the *Canada Medical Record* will be brougth to a close. How far we have fulfilled the expectations of our friends is for them alone to say—we may however state that we have endeavoured to so arrange

our selections, that as far as possible it should be thoroughly practical in its character, and we feel that to a very large extent we have carried out this idea: indeed were we so inclined we could extract from the letters of many of our subscribers numerous compliments upon the large amount of valuable practical information which they have been able to glean from our pages. As we have conducted the *Record* for the past three years, so will it be conducted in the future, and we ask the cordial assistance of our friends to extend our circulation. We have but few subscribers, who have it not in their power to induce a brother practicioner to take our Record. We ask them to do it. Let us hear from you, in time that new subscribers may commence with volume four.

ZIEMSSEN'S CYCLOPÆDIA OF THE PRACTICE OF MEDICINE.

We have received Volume three of this most interesting and valuable work from its American publishers, Messrs W. Wood & Co of New York. We will notice it in our next issue.

We incloes receipts in this number to all who have remitted to us since the issue of our May number.

TO CONTRIBUTORS.

Our third volume will soon be completed, and as we look over the names of those who have placed us, during the past year, under obligations for the contribution of original communications, we find that they have nearly all been residents of Montreal. While we feel proud that those who know us best, should have selected the *Record* as the means of reaching the profession, and thankful for the assistance which they have thus afforded us, yet we cannot help the conviction forcing itself upon us that very valuable contributions to practical medicine are being lost by the absolute lethargy of the mass of our country practitioners. This should not be. They owe it to the profession at large; they owe it to themselves—that interesting cases, and clinical facts occurring in their experience should be recorded. The reporting of cases causes closer observation on the part of the physician, and this largely increases his keenness of perception. Let our Country subscribers waken up, forward their communications, and we will be glad to lay them before the profession.

TO OUR SUBSCRIBERS.

In our last issue, we inclosed accounts to a large proportion of our subscribers. Those who did not receive them with that number of the *Record* will find them inclosed in the present one. As the amount to each is very small, and yet in the agregate to us a very large sum, we respectfully ask a *prompt* remittance.

A few will find that their accounts extend from the first issue of the *Record*, and for them we have a few special words. We have continued to send the *Record* to these delinquent subscribers because in nearly every instance we either personally knew the parties or had reason to believe that it was purely neglect that the subscription was not paid. We have now come to a point when we must clearly understand one another. We have supplied them with the *Record* for the past three years, and paid thirty-six cents postage for each subscriber. We cannot continue to do it any longer. We therefore respectfully intimate that all subscribers who owe for the three volumes of *Record* will have their names erased from our list, unless they remit previous to the issue of the first number of volume four. After that date all unpaid three years accounts will be placed in the proper quarter to secure prompt payment.

THE MONTREAL WATER SUPPLY.

The water which has been furnished the citizens of Montreal during the past few months has been filthy in the extreme. That such fluid, dark with dirt, should be supplied by any Civic Government to its people, is a disgrace to our boasted civilization. The remedy—filtration—is not expensive, and should be adopted without delay. Settling ponds, which have been spoken about, will not, in our opinion, answer the purpose, and higher authority than ours we know holds similar views.

OUR DUSTY CITY.

Montreal people are in dry weather almost smothered with dust, and in rainy weather they can hardly travel the streets for the mud. Two extremes, these are indeed—and neither are at all satisfactory. Of the two, perhaps the latter is the best able to be borne—for in a carriage you can bid it defiance; but the dust penetrates everywhere, and is so thick on the streets as to look like we had at some time had a fall of dust from the clouds. Moreover it is unhealthy. We have seen, this spring, a large number of sore eyes —simple conjunctivitis—caused by it, principally among those compelled to drive much; also several

cases of bronchial irritation resulting from its inhalation. Montreal is truly the dustiest city, and we are informed on good authority it is also one of the dirtiest cities to be found any where.

DIARRHŒA OF TYPHOID FEVER.

Dr. George Johnson (*Practitioner*) says he has lately given up the use of all astringents in the treatment of diarrhœa in typhoid fever. Typhoid fever requires careful nursing and feeding, but no medicine of active nature. He feeds his patients mainly with milk, beef-tea, and two raw eggs in twenty-four hours, and gives wine or brandy in certain cases. He has abandoned the use of mineral acids. When the food disagrees it is better to keep patients to milk alone for several days. Out of fifteen cases of typhoid lately in his wards, all recovered under this treatment.

HYDROCELE FLUID AS A PRESERVATIVE.

Dr. Robert McDonnell, of Dublin, recommends, hydrocele fluid as a preservative of anatomical and pathological specimens. It neither contracts nor hardens the tissues, nor does it enlarge them. He adds a little bichromate of potash to it, and prefers it to any other menstruum.

MEDICINE IN JAPAN.

The Island of Yesso (says the *London Lancet*) is becoming more and more prosperous. An American physician has founded as many as five hospita's for the natives. He has established a regular clinique and gives lectures to the students. These lectures, are published, with illustrations, in a monthly periodical written in the Japanese language.

PERSONAL.

Dr. W. R. Cluness, of San Francisco, California, reports in *Pacific Medical and Surgical Journal*. the successful removal of a polycystic proliferous ovarian tumor weighing thirty-seven pounds.

Dr. G.F. Slack, (M.D. Bishop's College) M.R.C.S Eng., and for three years House Surgeon at Charing Cross Hospital, London, has been appointed Lecturer on Minor Surgery in the Medical Faculty of Bishop's College.

Dr. Wallace Clark (M.D. McGill 1871) has left Marquette, Michigan, where, since his graduation, he has been in practice. We hear he has several excellent openings at his command, but has not yet determined his location.

Dr. Shee, of Quebec, (C.M., M.D. Bishops College 1874) was lately in Montreal, as acting Surgeon to the Allan *S.S. Peruvian*.

Dr. W. J. Kearny, of Montreal, a graduate of the present session of McGill University, has been presented by his friends with a valuable case of surgical instruments, accompanied by a flattering address.

Dr. A. G. Belleau, Quebec, (M.D. McGill College, 1868,) has been appointed Deputy-Coroner for the District of Quebec.

Dr. Deguise has been appointed Physician to the port of Quebec, in place of Dr. Roy, deceased.

The end of May, Dr. Hingston Mayor of Montreal, removed the tongue of an old man for cancer. Lower jaw was sawed through at the symphisis and the tongue removed clean at the os hyoides. The ecraseur was used, and the operation was almost bloodless.

BIRTHS.

At Gentilly., Que., on the 26th May, the wife of Joseph E. A. Lanouette, C.M., M.D., of a daughter.

In Montreal, onthe 27th May,the wife of Dr. Francis Wayland Campbell, of a son.

In Montreal, on the 3rd June, the wife of Dr .William E. Bessey, of a son.

MARRIED.

At the residence of the bride's father, by the Rev J Patterson, brother-in-law of the bride, assisted by the Rev. J. Watson, M.A., Huntington, on the 2nd June, John Morrison M.A., M.D., son of Rev. J. Morrison, Waddington, N.Y., to Anna Markland Sherriff, third daughter of Francis Sherriff Esq., M.D., Dremisle, Huntington.

At Richmond, Que., on the 3rd June, by the Rev. Henry Roe, assisted by the Rev Isaac Thompson, Archibald George, on of the late Archibald Hall, Esq., M.D., of Montreal, to Catherine Louisa, third daughter of the late Dr. Fowler of Melbourne.

At St. Johns, Que., on the 1st June, by the Rev F.J.B. Allnatt, W. de M. Marler, of Montreal, to Josephine C. Howard second daughter of Dr. Henry Howard, Medical Superintendent St. Johns Lunatic Asylum.

DIED.

In Montreal on the 22nd of May, Sarah O'Leary, wife of J. P. Rottot, M.D.

At Simcoe, Ont., at the residence of Dr. Covernton, on the 31st May, Robert M. Wilson, M.D., of Niagara, in the 46th year of his age.

In Montreal,on the 4th June, Frederick Payne, infant son of Dr. W. E. Bessey.

In Quebec, on the 3rd inst, Louis Joseph Roy, M.D,. Physician to the Port of Quebec, aged 55 years and 5 months.

Original Communications.

Address to the Graduates in Medicine of the University of Bishop's College, delivered at the Annual Convocation of the University, June 24th, 1875. By FRANCIS WAYLAND CAMPBELL, A.M., M.D., L.R.C.P., London, Professor of Physiology.

MY LORD,

HONORABLE CHANCELLOR,

LADIES AND GENTLEMEN,

GRADUATES IN MEDICINE,

On behalf of the Medical Faculty of this University, allow me to offer you their warm congratulations upon the auspicious termination of your collegiate career. The Honorable Chancellor has just conferred upon you the Degree of Master in Surgery and Doctor of Medicine, and you now stand before the world as duly qualified members of a great and noble profession. This occasion, long looked forward to, is full of interest not alone to you, but to all who take an interest in Medical education. To-day your term of pupilage is ended, and well remembering the time when I stood in a like position I can appreciate the load which has fallen from your shoulders, and the buoyancy of your spirits, as you stand upon the threshold of your professional career, and look forward with the hope and the enthusiasm of youth into the unrevealed future. To-day a new life is opening before you, and as you stand upon the brink of that river upon whose distant shore are gathered the promises and the rewards of the future, let us for a moment pause, and calmly survey the scene. The profession which you have chosen as the future occupation of your life requires no elogium from me. It came into existence because it was a necessity, and it has ever since its birth been fostered and cared for by the good, the learned, the benevolent of every age. Gentlemen, the inception of our profession dates long ages back. I fear we seldom think of the great honor which you and I have in belonging to a profession which is so ancient, and which has a pedigree of which perhaps no other profession can boast. Hippocrates the father of Medicine, was born 500 years before the Christian era, and the brilliancy of his intellect was such that, though living at a time when Ancient Greece was in her period of greatest refinement, and standing, as he did, side by side with Socrates and Plato—names which will ever shed lustre on their time—his has come down to us with a veneration which century upon century has not effaced. Is not this an ancestry to boast of? Have you then thought of the great responsibility which is imposed upon you, now that you are numbered among its members. The human body "*fearfully and wonderfully made*" is henceforth to be the object of your constant care and continued study. From morn till evening, and often during the still watches of the night, the sick chamber will make demands upon you. Within its precincts you will, if faithful to your duty, meet with triumphs which will cheer and encourage you; you will also meet with failures—be prepared for them, and not cast down. Ever bear in mind that your skill is human, and that we have to admit the fact, that there are diseases which as yet yield not to the Physician's skill. The science of medicine has not, as yet, in all its numerous branches and departments, reached absolute perfection; in a word, we cannot call it an exact science. Yet the rapid progress which has taken place in our profession during the present century, leads us to entertain the hope that in time the Physician will be able to deal successfully with diseases which we are now forced to pronounce incurable. The human body, with its complex and yet most perfect machinery, has during the past four years been the subject of your investigation. In health, and in its action under disease, you have witnessed those apparently numberless phenomena, which it is capable of exhibiting; and now, believing in your ability to deal scientifically with the various derangements which may occur to it, we send you forth, attesting to your competency by the seal of this University. The charge which has now been entrusted to you is one of the most serious which can be placed in the hands of mortal man. Henceforth your pathway will lie amid scenes of suffering and of death, and you will often be called upon to face disease in its most deadly, and its most loathsome forms. When the atmosphere is heavy with germs of disease—when universal panic extends over the land—you will I doubt not be found—as our profession ever has been found—true and steadfast in the performance of your duty. For in a time of peril, when disease is cutting down the strong and the vigorous all around you, to you the public will look for cheering influence, for hope and for life. At such a time you will require much to sustain you, and the thought that you are humble instruments in the hands of the great Physician will, I doubt not, give you strength for the contest. Often when tired and exhausted nature is demanding the repose necessary for its recuperation, your bell will summon you to the post of danger—not alone to your patient but danger to yourself. Unlike the soldier who leaves his home for the field of battle amid the shouts and the huzzas of a sympathising populace, and who re-

turning crowned with the victorious wreath, receives the plaudits of the nation—your departure to your post of danger is not accompanied by any such stimulants to exertion, nor are your victories—sometimes dearly won—proclaimed to the world through the medium of the newspaper press. The banners of our profession have emblazoned on them many illustrations of heroism as great as ever soldier showed upon the field of battle. Those of you who have walked the wards of the Montreal General Hospital will have noticed chiseled in marble on the walls of its entrance hall the names of Loedel and Caldwell, who, the record tells us, fell, while bravely battling with an epidemic—typhus fever—which some years ago swept over our city. Have they died in vain, or has not their noble sacrifice of self, stimulated during the past thirty years, a host of students who, reading the record of their death at the post of duty, have felt that these men, although dead, yet speak. A few years ago, and that terrible scourge of the Southern States of the American republic—yellow fever—broke out at Norfolk, Virginia, and the contest was far beyond the power of the medical men of the place to grapple with. Volunteers were called for, and were not wanting. Numbers of medical men rushed to the scene, and at once threw themselves into the struggle. It was a terrible one, and when the victory was won, and the casualties counted, it was found that forty medical men had fallen victims to the epidemic they had labored to resist. They have not died in vain. Faithfully they fulfilled the sacred duties of their calling, and their memories remain an imperishable legacy to the profession they have ennobled and adorned. Gentlemen, I have drawn no fancy picture, but selected incidents of no uncommon occurrence, among the ranks of our profession, and they well illustrate its moral grandeur At the very outset of your professional career, you will meet with difficulties, so I pray you be prepared for them; nor will trials and disappointments be unfamiliar to you. It has been truly said that there is no royal road to learning, and there most certainly is no such avenue, in the vast majority of instances, along which the Physician can swiftly glide into practice. I think it well it is so, for it gives the young practitioner time to well digest—if I may be allowed to use the word—those cases which come under his care, and which, from want of experience, he would, if hurried by press of work, certainly fail to do justice to. Rapidity of diagnosis—the art of naming disease—which in some is remarkable, can only be acquired by years of patient investigation. Be satisfied therefore, and bide your time. Do not depend upon friends, however, to press your claims upon the public. Be content to rely upon your own exertions, let your manhood assert itself, and take my word for it, patient industry will in time bring its reward. Do not I beg of you, gentlemen, follow the advice of those who perchance will advise you, *as they have advised* others—that the best way to get business in the medical profession is to put on the appearance of being overpowered by it. Do not have messages summon you from public worship, so that the eyes of the whole congregation may follow you as you pass down the aisle. Do not send messengers to the houses of your most influential friends, asking if you are there, and stating that your attendance is required at a most important case. Sir Dominick Corrigan, one of the most celebrated Irish Physicians of the present day, states that on commencing his career, and being entirely destitute of patients, a kind friend recommended him to take to driving hard in a carriage, particularly on wet and muddy days, so as to bespatter pedestrians, and endanger lives at crossings, and thus make every passer-by enquire who he was. Sir Dominick, however, says that the advice did not suit either his views or *his pocket*, and he at once thought of the lines applied to one of the profession who was reported to have so acted:

> "Thy nag's the leanest thing alive,
> "So very hard thou lov'st to drive;
> "I have heard thy anxious coachman say,
> "It cost thee more in whips than hay."

I am not visionary, gentlemen, in what I have just said, for you will doubtless be anxious to get on, and your friends will not be slow in giving you—what they are loath to accept from you—*advice*, and perchance it may be to act in some of the ways which I have just condemned. Do not be deceived by them, for rest assured there is but a single pathway to excellence and success in the Medical profession, and that is by steady hard study, and a patient waiting. It may seem hard to be thus kept down, while you are in the hey-day of your youth, and eager for work, but if you wish to retain and increase your hold on the community, among whom your lot may be cast, let your advancement be legitimate, and the result of an honest appreciation of your merits. Remember that there is no position which a medical man can fill to which you may not aspire, and let the thought that all the men in our profession who have risen to eminence have been working men cheer you. One of the most noted Physicians of London at this time was the son of a poor farmer, who tilled a small patch.

of ground belonging to Guy's Hospital. By his own intelligence, and steady hard work the son pushed his way, and to-day, as Sir James Paget, he is honored, not alone wherever the English language is spoken but wherever the influence of legitimate medicine is felt. It is true that it is not given to all to be Field Marshals, or Admirals, or Bishops, or Professors in Universities. In every sphere of life—in every profession—in every trade, there must ever be grades; but if you are ambitious, aim high and labour hard; if you apparently fail do not be discomfited, but try again. Ever remember that God helps those who help themselves. Remember also to succeed will require from you the most unceasing watchfulness; so that when the time to reap your reward arrives, you may be prepared to take advantage of it, for Shakespeare says, "there is a tide in the affairs of men, which, taken at the flood, leads on to fortune." If at last you find that you have reached the point beyond which you cannot pass, rest assured you are much the better off from the efforts which you have made. The difficulty of obtaining practice in the early years of professional life is not by any means confined to the medical profession. Our sister profession, the law, makes a like complaint, and, if some of the facts recorded of her greatest men be correct, with much justice. It is said of Blackstone, a name familiar to every law student, that during the first fourteen years of his professional career, he had but two briefs entrusted to him. His management of them, however, showed such care, that they formed the corner stone of that very great success to which he subsequently attained. Unlike the merchant or the mechanic, the professional man cannot advertise his claims to notice: for to do so would place him in direct opposition to that code of ethics which governs our profession throughout the civilized world. You must work patiently, and let me add hopefully, and if you do so I firmly believe you will in time have your reward. In your intercourse with your patients, you will find much that will try your patience and your temper. Guard them both well; keep a tight rein upon them, for sickness begets a snappishness of disposition, and very often an unreasonableness in the demands which will be made upon you. It will be your duty however, to study the whims and the caprices of your patients, no matter how unpalatable and irksome it often may be. Could I offer you no other reason, than as a means towards success, I would advise it; but surely out of your sympathising nature some will flow towards those whom an All-wise Providence has seen fit to afflict.

Into the sick room I beg of you to carry a cheerfulness of disposition, for, more perhaps than you will at first imagine, it will inspire confidence, and give to the patient a hopefulness in cases, even the most desperate. How much this can do in prolonging life, experience will soon teach you. In cases of an essentially chronic character, the value of a cheerful hope-inspiring physician is perhaps best seen. I know that the physician whose face ever lightens the darkness of a sick room can do a great deal to make sickness endurable.

Towards the fair sex, ever present a lofty, manly bearing. It would be folly in me to imagine that you have yet to learn to appreciate them; but, gentlemen, I mean no disparagement either to them or to you, when I say you have yet to learn their true value. It is in the sick chamber that woman brings into active play those wonderful attributes of gentleness which soothes the aching brow, and smoothes the pillow, when man's mortal frame is racked and tossed with pain. True indeed has Sir Walter Scott in his beautiful Marmion said:

> "O Woman! in thy hours of ease,
> Uncertain, coy, and hard to please,
> And variable as the shade
> By the light quivering aspen made;
> When pain and anguish wring the brow,
> A ministering angel thou!"

And now, gentlemen, what return may you anticipate from a firm adherence to the line of conduct I have marked out for you. I wish indeed that I could with truth say that you would always receive the gratitude of those whom you have benefited, but in truth I cannot, for gratitude is a commodity which I fear is somewhat scarce. It is indeed precious and highly to be prized when bestowed, but, as remarked lately by that eminent American Surgeon, Prof. Gross, "there is much less of it than is commonly imagined." Do not for a moment suppose that among your patients you will not meet with some who will always show a lively sense of your professional worth. But, on the other hand, be prepared to find services rendered by you, which no sordid coin can pay, treated with indifference. Want of success in treating diseases which are of necessity fatal, proving simply that you are not omnipotent, will often be the cause of much ingratitude and fault finding; those who act thus forgetting that your power is limited, and that it is appointed unto all men once to die. Do your duty manfully, hopefully, and leave the result in the hands of the All-wise disposer of events.

One point more, gentlemen, let me touch upon, and I shall have done. I have spoken of the nobility of

our profession, and of your conduct towards your patients: let me now say a word or two with regard to your conduct toward your professional brethren. A proper appreciation of this will, I assure you, do much, very much, to make your professional life a comfortable one. I can hardly conceive of anything so deserving of severe condemnation, as deliberately acting in a way which must re-act injuriously on a brother practitioner. Gentlemen, scorn to do a mean action; be honest, straightforward, upright, ever speak well of a confrère, and never attempt to heighten your own attainments by a deliberate attempt at proving him your inferior. Throw aside all narrow considerations, work willingly, heartily, with those who are laboring in the common vineyard with yourselves. Bring your information, your experience, into the common stock, and I am confident you will never regret having done so. Ever be ready to do a kind act for a professional brother, for you know not how soon he may be able to do one for you. Life is too short to engage in unseemly quarrels, and professional quarrels are unseemly I assure you. Avoid them, I beg of you.

A few short hours, and the small band of graduates now before me will have scattered, each going to his own sphere of labor. Believe me, gentlemen, the Medical Faculty of this University will watch your career with no common interest, and will rejoice most heartily when success lights upon your banners. On your part, gentlemen, I trust I may express the hope that, though separated by distance from the scene of your former labors, you will ever take a warm interest in the success of your Alma Mater. She has cherished and nourished you, and now, proud of your attainments, she sends you into the world to battle with disease and death. Work then while you are young, in the morning and vigor of your intellectual and physical powers: for to fold your arms in idleness is to stagnate and die. Work while it is day, for the night cometh when no man can work.

And now, brethren, members of our noble profession, go forth upon your high commission, and see that you blot not the fair escutcheon of your calling.

God grant that when your course shall have ended, your epitaph may be like that which is so touchingly described in the following lines, written by Jean Ingelow:

"So said, he raised, according to his vow,
On the green grass, where oft his townsfolk met
Under the shadow of a leafy bough
That leaned toward a singing rivulet,
A pure white stone whereon, like crown on brow,
The image of the vanished star was set:
And this was graven on the pure white stone,
In golden letters—WHILE SHE LIVED SHE SHONE!"

Progress of Medical Science.

PHTHISIS PULMONALIS.

By FRANCIS DELAFIELD, M.D.,

LECTURER ON PATHOLOGICAL ANATOMY AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK CITY.

GENTLEMEN:—We will now pass to the study of those lesions in the lungs which are usually classed together under the names of pulmonary phthisis, tuberculosis, or consumption. You are doubtless aware that much difference of opinion exists as to the real nature of these lesions, and you may even have been discouraged by reading the different views expressed in your text-books concerning them.

It is my wish to try to render the subject somewhat plainer to you, by stating as definitely as possible what the terms of the problem are which we are called upon to solve.

One of the first points which strikes us in our study of this question is that we have to deal with three distinct conditions—scrofula, tubercles, and inflammatory products. Let us, therefore, consider these three conditions separately, and then try to see how they are related to each other.

Of scrofula we see so little in this country that it is difficult for us to appreciate the prominent place it holds in the minds of physicians in European countries. It is a condition which is hardly susceptible of a definition, and yet it is not hard to understand what is meant by the term. It means this: When an individual acquires an inflammation of a mucous membrane, of the skin, of the joints, of the bones, of the genito-urinary apparatus, or of almost any part of the body, such an inflammation usually runs an acute course, and terminates in resolution, or in suppuration, or in the formation of organized new tissue. But if the inflammation, instead of doing this, simply reaches a certain point and stays there, and then, instead of resolving, or of suppurating, merely goes through a succession of degenerative changes such an inflammation is said to be scrofulous. The scrofulous inflammations have several well-marked characteristics. They are very slow in their progress; they are very rebellious to treatment; they are accompanied by an extensive cellular infiltration of the inflamed parts, so that when the degenerative changes ensue there is large destruction of tissue. The degeneration which occurs in the products of such a scrofulous inflammation is peculiar in its nature; it is commonly called cheesy degeneration, and consists in the transformation of the products of inflammation into a dry, yellow mass composed of amorphous granular matter. Examples of this form of inflammation will at once occur to you. Caries of the vertebræ, hip-joint disease, white swelling of the knee-joint, scrofulous orchitis, and enlarged lymphatic glands are all of frequent occurrence. Of the scrofulous inflammations of the skin and mucous membranes we see but little in New York.

You will see at once that such inflammations as these, running this peculiar course, can be explained

in two ways. We may say that a certain number of individuals are born with, or acquire the scrofulous diathesis—that they are scrofulous persons—and when any part of their bodies becomes inflamed, that in consequence of this scrofulous diathesis, the inflammation takes on the scrofulous character. Or we may hold that, just as we find croupous, or catarrhal, or suppurative inflammation occurring in different individuals, or in the same individuals at different times, so we may find the scrofulous inflammation; and that it is no more necessary to suppose a scrofulous diathesis than a suppurative or a catarrhal, or a croupous diathesis.

Our views on this subject can hardly fail to be influenced by our surroundings. In Germany or in France we see great numbers of persons, especially children, who at once strike us by their unhealthy appearance. We see that every inflammatory process set up in them takes on the scrofulous character. We see their faces scarred with scrofulous sores, their glands swollen, their bones destroyed, and it seems natural to class them all together as the victims of some constitutional disease.

In this country, however, our experience is somewhat different. We see indeed, a certain number of such unhealthy persons, but we also see the same scrofulous inflammations occurring in persons otherwise healthy. We see caries of the spine produced by injuries in healthy adults; we see healthy children attacked by hip-joint disease, recover from it, and go through a long life in perfect health; we see lymphatic glands pass through all the stages of scrofulous inflammation and degeneration without any permanent effect on the health of the patient. So here it is not unnatural for us to think it possible that this form of inflammation is merely one of the natural varieties of that process.

Two other questions concerning scrofulous inflammation are still to be considered: 1st. Are tubercles present in scrofulous inflammation? 2nd. Does the cheesy degeneration which accompanies scrofulous inflammation give rise to tubercle.

1st Are tubercles present in all scrofulous inflammations? We find this question answered in four ways. Some hold that a scrofulous inflammation is really nothing but the infiltration of the affected part with tubercles. Some hold that there is first a formation of miliary tubercles, and that these become cheesy and are accompanied by inflammatory changes. Some hold that the process is simply an inflammation, succeeded by degeneration, and that no tubercles are present. Some hold that the process is an inflammatory one of a peculiar nature, resulting in the formation of a cellular tissue of low vitality, and that this process is identical in its nature with tuberculosis. It is easier to point out the defects in these different theories than it is to construct a better one. Probably the entire truth in this matter has not yet been reached.

2nd. Does the cheesy degeneration which accompanies scrofulous inflammation give rise to tubercle? This is a question which is now very generally answered in the affirmative—perhaps too hastily. This opinion has been formed in great measure from the results of experiments made on animals. We must therefore consider here the artificial inoculation of tubercle. Attempts to inoculate tubercle artificially were made at quite an early period.

TUBERCLES—INOCULATION.

History.—Kortum, 1789, Paris, rubbed fluid matter from a scrofulous ulcer into the neck of one boy, and inoculated another boy with the same matter, in the same place, but without results.

Hebréard, 1802. inoculated three dogs with matter, from scrofulous ulcers, but without results.

Salmade, 1805, inoculated a number of animals with scrofulous matter, but without results.

Lepelletier, 1810, inoculated four guinea-pigs but without result.

Cruveilhier, 1826, injected mercury into the trachea, arteries and veins of animals, and produced multiple abscesses, which he called tubercles.

Villemin, 1865, read his first memoir, giving his experiments with gray tubercles on rabbits, and concluding that tuberculosis is a specific affection, like syphilis, that it has its cause in an inoculable material, and that it can be easily inoculated on rabbits.

In 1866 he published his second memoir, and in 1868 his book on the same subject. He inoculated rabbits from men, from cows, and from other rabbits; also guinea-pigs, dogs, cats and sheep. In dogs and cats he obtained no well-marked results, in sheep no result. The matter which he used was gray tubercles from the lungs and serous membranes; the cheesy infiltrated matter from lungs, and the cheesy glands, sputa and blood of phthisical patients. With all these matters he obtained positive results. In the lungs, liver, spleen, and serous membranes of the animals inoculated he found numbers of small gray tumors, identical in appearance with the gray miliary tubercles of men.

In four cases he produced yellow, infiltrated partly softened cheesy lobules in the lungs, and in one case a cavity.

From these experiments he deduced the conclusion that tuberculosis is a specific, inoculated disease like syphilis; that gray and yellow, isolated and infiltrated are all of the same nature; that they have no specific anatomical elements, but that the proof of their nature is their inoculability.

Lebert, 1866, repeated Villemin's experiments on rabbits and guinea-pigs, and confirmed his conclusions. After this he went on to inoculate with miliary tubercles, cheesy infiltrated tubercles, cheesy lymphatic glands, portions of cancer, mercury and charcoal. From these experiments he concluded just the opposite. That tubercles are not specific nor inoculable. That they are simply the result of circumscribed inflammations; that they have no specific elements. In one case, in a guinea pig, inoculation of peritoneal granulations gave rise to cavities in the lungs.

Herard, 1867, inoculated four rabbits, two with gray granulations and two with cheesy infiltration. The first two succeeded, the second two did not, from

which he concluded that gray tubercles and cheesy infiltration were different.

Colin, 1867-1868, one of the commission appointed by the Paris Academy, made two reports embracing experiments on forty-six animals, rabbits, guinea-pigs, dogs and sheep. He deduced the following conclusions:

1. Inoculation of gray and yellow tubercular matter produces tubercles.

2. It is most probable that the tumors produced by inoculation are partly due to the material inoculated, and partly to the suppuration produced around the inoculated material.

3. The extent of the lesions produced is in proportion to the quantity of material inoculated.

4. It is the tubercular material itself and not any virus, which is taken up by the lymphatics and deposited in the different organs.

5. The deposits in the lungs, when they are firm, shining and semi-transparent, are certainly tubercular; when they are opaque and yellow, their nature is not so certain.

Behier, Pidoux, Vulpian, and Empis inoculated with various results.

Clark of London, 1867, produced gray tubercles in rabbits by inoculation with gray tubercles, and in two cases with non-tubercular matter.

Saunderson, 1868, produced gray tubercles in guinea-pigs, by inoculation with gray tubercles, pus, non-tubercular products, and by causing chronic suppuration with setons.

Wilson Fox, 1868, inoculated 117 guinea-pigs, and 12 rabbits.

He inoculated gray tubercles; red, gray and cheesy hepatization, pus, sloughs from wounds, waxy liver, putrid muscle, and used setons. He produced miliary tubercles, in the lungs, bronchial glands, spleen, liver, omentum, and intestines. These tubercles were identical microscopically with those in man. Of 117 pigs 58 became tubercular and 6 doubtful.

Verga, Biffi and Mantegazza, 1868, in Italy, inoculoted rabbits with the same results.

Waldenburgh, 1869, Berlin, inoculated seventy-one rabbits and twenty eight guinea-pigs. He inoculated gray tubercles, cheesy glands extirpated during life, cheesy pus, gray tubercles, and cheesy glands preserved in alcohol, and catarrhal pharyngeal sputum treated with permanganate of potash. He also injected gray tubercles and inflamed glands rubbed up with aniline blue, and found the aniline in the miliary tubercles produced, in the white blood-globules and in some of the tissues.

He also inoculated a goat nine times with fresh matter and tissues preserved in alcohol. The animal's health was not affected, but tubercles were produced.

Most of the animals died of the disease. The tubercles produced were true gray miliary tubercles. They were found in the lungs, intestines, omentum, liver, spleen, kidneys, lymphatic glands.

Out of 100 animals thirty-four became tuberculous. He inferred that the tubercles were produced by the absorption of the fine particles of the inoculated matter, the circulation of these in the blood, their deposit in the different tissues, and their presence causing irritation and new growth.

Klebs injected tubercular matter into the abdominal cavity, and produced tubercles of the peritoneum and other organs. He regards the tubercles as formed in and propagated by the lymphatics.

Cohnheim and Frankel, 1868, inoculated by introducing into the abdominal cavities of rabbits and guinea-pigs portions of tubercle, of fresh and putrid tissues of all varieties, also pieces of India-rubber, of paper of lint, etc. The result of these procedures was always peritonitis. In many cases this killed the animals, in others the foreign body became encapsuled and was found surrounded by cheesy pus. In these cases miliary tubercles were found throughout the body. Cohnheim inferred that cheesy pus was the excitant of tubercle, and in proof of this he found that such cheesy pus, mixed with a solution of salt, filtered and injected into the blood vessels, produced tubercles in dogs.

All these experiments, therefore, which seemed at first to demonstrate that tubercles could be inoculated like small-pox, resulted in this conclusion. In certain animals—guinea-pigs, rabbits and dogs—if we excite inflammation by introducing under the skin or into the peritoneum any foreign substance, the inflammation thus produced will often assume the scrofulous character. If it does so, there is usually a collection of cheesy matter at the point where the inflammation was excited; near this the lymphatic glands will be enlarged, and in the lungs and other viscera we will find miliary tubercles. It seems to be a natural conclusion from this, that scrofulous inflammation with cheesy degeneration produces foci of cheesy matter; this cheesy matter is absorbed, infects the entire body, and thus produces miliary tubercles.

This doctrine was very soon applied to the tuberculosis of man. It is now very generally believed that in many cases miliary tubercles are the result of auto-inoculation from a cheesy focus. Thus Niemeyer says that patients with chronic cheesy pneumonia are always in danger of infecting themselves and becoming tuberculous. Rindfleisch says that tuberculosis in individuals who are not scrofulous is a thing unknown. Hueter lays down the rule that if we find a cheesy lymphatic gland in any part of the body, we must extirpate it at once to prevent tubercular infection.

You will find, however, that in this country there are some difficulties in the application of this doctrine. These difficulties seem to depend on the fact already mentioned that here scrofulous inflammations are less frequent and less extensive. It is impossible to ignore the fact that we meet with cases of general tuberculosis without cheesy foci; and that we meet with extensive cheesy deposits without tubercles. So that we may be permitted to doubt whether the law of the production of tubercles from self-inoculation with cheesy products is as absolute a one as has been stated.

II. Our next step must be to inquire what products of chronic inflammation do we meet with in the lungs? These products are all comprised under two heads—products of inflammation within the air cells and bron-

chi, and products of inflammation between and outside of the air cells and bronchi. We have already seen in studying pneumonia that there is a form of inflammation in which the air cells are filled with fibrin and large, nucleated cells of epithelial character, while the bronchi are filled with pus cells. This is one of the forms of pneumonia which we meet with in phthisis. We have also seen that there is another variety of inflammation affecting the interstitial connective tissue of the lungs, and called interstitial pneumonia. All the inflammatory products found in phthisis are due to the existence of one or both of these varieties of pneumonia.

What lesions do we find then in the lungs which are undoubtedly the results of inflammation ? the intra-alveolar pneumonia fills the air cells with fibrine and epithelium, and the bronchi with fibrine and pus. Wherever this takes place the lung becomes solid—hepatized. This hepatization is at first sometimes red, sometimes of a gelatinous, gray color. The absence of a first stage of red hepatization in some cases is due to the fact that the inflammation is from the commencement a chronic one, that it has no acute stage in which the blood-vessels are congested and the blood escapes. The products of inflammation thus formed frequently degenerate, then the hepatized lobules are of a more opaque gray color, or whiter, or yellow and cheesy. They may remain cheesy for an indefinite period, or they may calcify, or the walls of the air vesicles may be so compressed that they lose their vitality, become necrotic, soften, break down and form cavities. The same degenerative changes take place in the pus and fibrine which fill the small bronchi.

The extra alveolar or interstitial pneumonia results in the production of new fibrous tissue. This new tissue is sometimes dense and hard, composed of fibrillated connective tissue with few cells, sometimes is softer and looser, sometimes is composed of reticulate connective tissue. It resembles closely the new fibrous tissue which is produced in other parts of the body by chronic inflammation. This new tissue is found thickening the pulmonary pleura, surrounding the bronchi and blood-vessels, traversing the lung in broad bands, motilng it with large patches or with minute nodules. It is either white, gray, or black in color.

When in the same lung both the intra-alveolar and the extra-alveolar forms of pneumonia continue as a chronic disease for years, the inflammatory products which result modify each other and give rise to a great variety of lesions. It is these complicated lesions which it is so difficult to distinguish from tubercle. *New York Medical Record.*

INTERNAL HEMORRHOIDS.

* * * * The next case, Gentlemen, to which I will invite your attention, is one of hemorrhoids, or piles, as they are commonly termed. The man's history is the following :—

He is sixty years of age, and has suffered, he says, for thirty years with an enlargement or protrusion from the anus. During the last ten years these tumors have bled, and bled profusely. This aggravated hemorrhage has occurred every three or four weeks, but in the intervals there has always been more or less loss of blood. As a result of this constant drain, his constitution has suffered severely; he is weak and feeble, possesses no energy, and is unable, as he assures me, to earn his living. He has, therefore, sought the shelter of this Institution, in the hope of being cured.

Now before I proceed to the examination and treatment of this case, let me briefly explain to you the causes and pathology of this troublesome affection. In the first place, what are hemorrhoids? The derivation of the term is from the two Greek words Hæma, blood, and Reo, to flow, and signifies, therefore, literally, a flow or flux of blood. But all piles do not bleed; and they have therefore been variously subdivided at different times and by different writers.

In the first place, there is the classification into the "blind piles," hemorrhoides cecæ, and the "open or bleeding" pile, hemorrhoides apertæ, and these are the terms which have been largely employed by the older surgeons. Another classification, and perhaps the more common, is that into internal and external piles, according as the tumor is developed above or within, or below and external to the external sphincter ani muscle. The former, the internal pile, which is often accompanied by bleeding, corresponds with the open pile of the ancient surgeons.

And now let me say a few words relative to the character of a hemorrhoid. Essentially, hemorrhoids depend upon a varicose condition of the veins of the rectum, at all events, in their incipient stages. You know, perhaps, that the lower part of the rectum is supplied with blood through three channels; the superior, middle, and inferior hemorrhoidal arteries. The first named vessel is given off by the inferior mesenteric; the second by the internal iliac, and the last named by the internal pudic arteries. These different hemorrhoidal arteries are accompanied by their respective veins. As a consequence, the blood from the rectum finds its way back into the general circulation through three channels, to wit, the internal iliac, internal pudic, and inferior mesenteric trunks. The latter, as it ascends, pours its blood into the portal vein, and passes through the liver.

You will thus understand, I trust, how it happens that the superior hemorrhoidal vein, a vein of considerable length, destitute of valves, and entering into the composition of the portal system, may at any time be subjected to the general disturbing hepatic influences which tend to produce portal congestion. And you will also see how, such portal congestion having occurred, we may have interference exerted upon the return of the blood from the rectum through the medium of the superior hemorrhoidal, and its prolongation, the inferior mesenteric veins. This distribution of the rectal veins and arteries will be more clear, if you glance for a moment at this exaggerated diagram in colors, (demonstration made by the lecturer).

Now, Gentlemen, let us suppose that from any cause, whether portal dis turbance, the result of liver trouble, or from constipation, and the accumulated

fecal pressure upon the rectal veins, or from other causes, these veins should be kept permanently engorged or filled with blood, what would result? Inevitably there would be over-distension of the veins, accompanied at first by thinning and afterwards by hypertrophy of their walls. In other words, these veins would become varicose, and such varicosity would be most marked at their inferior termination, near the anus, where, as you observe in the diagram, the venous trunks inosculate freely, and form lips or pouches. That portion of the varix which forms above the sphincter ani, and which is covered by the mucous membrance of the gut, is known as the internal pile That which is developed below this muscle, and which has a muco-cutaneous covering, is the external pile.

In its incipient stage, the interior of the dilated or varicose vein is usually patulous, so as to permit the free passage or circulation of blood. In a short time, however, clots form, especially in the external pile. I shall doubtless have frequent occasion to show you how, by an incision of such a hemorrhoid, a clot can be evacuated from the containing cavity. It often, too, happens that these sacs suppurate and discharge their contents, and there are left only those pendulous folds of skin, tabs, as patients call them, which we so frequently observe fringing the external margin of the anus.

I have spoken to you, thus far, of a hemorrhoid as a varicosity or dilatation of a vein. But it may be, and most frequently, indeed, is something more, especially when the affection has been of long duration. For then we find that besides the distention of the walls of the vein, there is also thickening and hypertrophy, and that upon the outside of the venous parietes a thick, projecting velvety growth develops. This is well supplied with small arteries, which bleed freely when examined, and which bleed, too, most copiously, during the evacuation of the patient's bowels. Occasionally this hemorrhage occurs at almost every evacuation; but usually, I think, the bleeding is only severe at intervals of two or three weeks. In the interim there may be some bleeding, but generally far less in quantity, and often, indeed, sufficient only to constitute a stain.

The external pile inconveniences its possessor by the sense of weight, distention, and irritation which accompany it, and by its tendency to undergo attacks of acute inflammation. It is oftentimes, too, attended by an intolerable pruritus. The internal pile, in addition to most of the above-mentioned inconveniences is marked also by the bleeding from which it derives one of its synonoms, and which, as I have stated, is not infrequently periodical and prodigious.

With these preliminary remarks, let us proceed to the examination of the patient upon the table. Bearing in mind the long period during which he has labored under this distressing affection, you would naturally expect to find considerable structural lesions. To prepare him for this examination, and for any operation which may be necessary, I have caused his bowels to be freely acted upon by castor oil, followed by the employment of a full injection. He has also been directed to strain over a bucket of hot water, in order to force down the offending growths. Now, as I separate the buttocks, you observe the large size of the hemorrhoidal mass, projecting from above the external sphincter. Mark, if you please, its dark, villous appearance, and its extent of base embracing almost the entire circumference of the bowel. The surface of the tumor is studded with hemorrhagic points, and, as I press upon the mass, the blood flows freely. Underneath the pile you observe a projecting ring or fullness surrounding the anus. This is caused by a partial prolapse of the lower portion of the rectum, dependent, no doubt, on the long-continued habit of constipation into which the man has fallen; for he states that his bowels are rarely moved twice a week, often, indeed, but three times in two weeks. The removal of the hemorrhoid will doubtless relieve this prolapse.

The case is evidently a bad one, of internal or bleeding piles. Now, how shall I proceed to their cure?

Excision by the knife or scissors is out of the question. Such an attempt would certainly be followed by terrible bleeding. Removal by the ecraseur, or by a platina wire heated to a white heat by the galvano-cautery, are also objectionable, for both of these methods are, at times, apt to be followed by troublesome hemorrhage. So, also, is the destruction of the growth by the actual cautery, after the method of Dr. Henry Smith, of Kings's College, London.

The method which I adopt in all of these cases of internal piles, and which I confidently recommend to you, is that of ligation. If you follow me closely you will see how this is effected. The patient will now be brought under the influence of ether, and while this is being done, I will draw your attention to the modus operandi of the ligature in these cases. I have here a stout curved needle, with a large eye. This is armed with a strong double ligature, in fact a piece of fishing line, which cannot be broken by any strain my hands can put upon it. With this I intend to traverse the base of the tumor, and I shall then strangulate the mass in segments. It will at once occur to you that this procedure may be productive of great pain to the patient when he shall have emerged from the effects of the ether. Not so, if the ligature be properly applied.

In this diagram the mode of nerve distribution at the anal orifice is correctly represented. It is copied from Mr. Hilton's book on "Rest and Pain." You see here the internal pudic nerve sending a shower of branches from above downward through the thickness of the rectal walls. A little distance above the anus these nerve filaments rest *beneath* the mucous membrane, and they pierce this latter, to be distributed cutaneously on the line at which the mucous and cutaneous surfaces become continuous. This locality you can recognize in the living subject by a whitish line; see, here it is, on our patient.

He is now fully under the anæsthetic, and I proceed to my operation. First of all, I grasp the hemorrhoidal mass with this strong, toothed forceps, draw

it strongly downward, and have it so held by my assistant. I then take my scalpel and make an incision along the white muco-cutaneous line I have indicated to you. This incision is not deep, but is sufficient to divide the thickness of the mucous membrane, and consequently also the filaments of the pudic nerves just above their emergence. I next pass through a needle with its double ligature, the point entering in the cut I have made, and escaping above the hemorrhoid. I divide the ligature and remove the needle. The respective ends of the two ligatures are then tied, the upper one over the mucous surface of the pile whilst the lower one falls in the track I have made with my scalpel. I then surround the bases of both included masses with a thread from either ligature, and knot them very tightly. This I do to prevent any bleeding at the point of needle puncture. This series of manœuvres I repeat until the entire mass of the tumor is surrounded; in the patient before you three needles and five ligatures are demanded. You have witnessed how forcibly I tie the thread. Remember, that the more tightly you tie them the more perfect will be the stranulation, the less the danger of hemorrhage, and the more rapid the cure.

The operation is finished, the whole hemorrhoidal growth is strangulated—and you saw how large it was. I then return the mass within the bowel, leaving the free end of the ligatures twisted together and projecting through the anus, in case a possible hemorrhage might render further manipulation desirable, although this is hardly to be anticipated.

For after treatment I direct a one-grain old opium pill, to be repeated in four hours, and afterwards as often as may be necessary to prevent any motion of the bowels. His food will be of a fluid and farinaceous character. The constipation I enforce for seven or eight days, at the expiration of which time I order a more solid diet, which, in all probability, will be followed by a natural motion and the fall of the ligatures, unless they should separate earlier.—*Clinic of Dr. Brinton at Philadelphia Hospital.*

PREVENTION AND TREATMENT OF PUERPERAL DISEASES.

In the American Supplement to the *Obstetrical Journal of Great Britain and Ireland*, Dr. Wm. Gooddel discourses on these points so practically, that we cannot do better than give his own language. He says, speaking of the Preston Retreat:—

"The wards are used invariably in rotation. By close management, and by crowding walking patients together, one of these wards in its turn stands idle for two or three weeks. During this time the doors and windows are kept open. Before it is again occupied by patients, the walls, floor, wood-work, and furniture, all of which are painted, are thoroughly scrubbed with carbolic acid soap, and then mopped over with a solution of half a pint of carbolic acid (Calvert's No. 4), to one pail of water. From this time until the ward is again vacated, no portion of it, not even the floor, unless accidentally soiled, is touched with water.

The nurses wear such clothing only as can be washed. As soon as the inmates of a ward are well enough to take care of themselves or one another, their nurse is relieved from duty. She now takes a soap bath, puts on an entire clean suit of clothes, and goes into a ward which has been thoroughly ventilated and cleansed. Before a new batch of patients fall to her care, she has had one week or more of rest. I visit the wards thrice daily, beginning always with the ward last occupied, and with the patient last delivered. Whenever a vaginal examination is needed it is put off until all the other patients have been seen. The examining finger is then anointed with an ointment containing carbolic acid, and the hands are afterwards washed with carbolic acid soap. Post mortem examinations I never perform.

The beds consist of a tick filled with fresh straw and covered with an army blanket. After the discharge of a patient, her bed is emptied, and the tick, blanket, and bedclothes are boiled in water to which a little carbolid acid has been added. Each bed is furnished with a feather bolster pillow, which are exposed on slats to the air when not in use. Once a year every bolster and pillow-tick in the house is washed and the feathers baked and "renovated," as it is technically termed. They also pass through the same process whenever soiled, or whenever used by a patient whose convalescence has been delayed.

The patients come chiefly from the poorer classes; but many in more comfortable circumstances, with the hope of getting better care, seek admission on account of some difficulty attending their former labors. On this account, the proportion of difficult labors is much above the average. Those patients who have families often put off coming in until labor has actually begun, and then leave at the earliest possible moment. Notwithstanding this, since patients have the privilege of remaining four weeks after their delivery, the average stay of each one is sixteen days before delivery, and eighteen days after. Every patient, upon admission, takes a warm bath, and at least one a week thereafter before her delivery. If she exhibits signs of feeble health, she is at once put upon the use of quinia, and of the mixture, consisting of two parts of the muriated tincture of iron, with three of dilute phosphoric acid. The habitual constipation of pregnancy is met by the administration, either in the morning of a teaspoonful of pulv. glycyrrhizæ comp. of the Prussian pharmacopœia; or, at bedtime, of four Lady Webster's pills (pil. stomachicæ). When a more active purge is needed, the pulv. jalapæ comp., or the pil. cathartic comp. (U. S. P.) is given. Headache and sleeplessness are treated by warm baths, by full doses of potassic bromide, and by the above-named medicines, when indicated: albuminuria is dealt with in pretty much the same way, but always with iron and phosphoric acid. The regular diet is plain and wholesome, yet more liberal than usual in charitable institutions. Apart from the frequent use of aperients, a relaxed condition of the bowels is promoted by serving table syrups at every meal, by fruits, fresh or dried, according to the season, and by all such vegetables as can

be eaten raw, viz., lettuce, cress, radishes, leeks, onions, tomatoes, cucumbers, and cabbages. Of these, in this latitude, an ample supply is obtainable during nine months of the year.

When a patient falls into labor, she first has her bowels moved by an injection, and then takes a warm bath. The bag of waters is usually ruptured artificially, and the liquor amnii collected in a grocer's scoop. The second stage of labor is never allowed to linger; any delay is met by the use, either of the vectis or of the forceps. As soon as possible after the birth and the removal of the child, the placenta is delivered by Credé's method. I may here remark that the still pulsating cord is first cut, then "stripped" of its blood, and as much as possible of gelatin, and finally tied, when it has ceased to bleed, and has become flaccid. Neither belly-band nor any kind of dressing is afterwards applied, but the cord freely dangles about from the navel. Treated in this manner, it dries up without any bad smell, and falls off like a ripe fruit, without leaving a raw stump. Out of more than five hundred infants treated thus, not one has had a pouting or sore navel requiring treatment, and not one has had an umbilical hernia. I am also well satisfied that, by dispensing with the belly-band, I have had fewer cases of inguinal hernia.

Ergot is hardly ever resorted to as an oxytocic; but one teaspoonful of the fluid extract is invariably given as soon as the head presses upon the perineum. When the labor is over, the perineum is examined, and, if torn, is at once sewed up with silver sutures. The patient is now washed clean, and a binder and cylindrical compress applied, the latter in the hollow just beyond the fundus of the womb. The bedstead on which she has been delivered is next wheeled from the Delivery Room to a ward and placed along the side of a bed, to which the woman now hitches herself over. Contrary to the generally held opinion that absolute rest after labor is indispensable, in no single instance has this muscular exertion apparently brought about a flooding. It seems rather to condense still further the uterine globe. Very rarely, indeed, has a flooding happened outside of the Delivery Room. However warm the weather, a blanket is thrown over the patient, and a foot warmer put to her feet. These remain until reaction sets in, and she asks to have them removed. A mug of beef-tea made from Liebig's extract is now given, and the child put to the breast as soon as it will take it. Thereafter, in a natural convalescence, the woman gets tea, boiled eggs, bread and butter, for breakfast; potatoes, and some kind of meat for dinner; stewed or fresh fruits, tea, bread and butter for supper. On the morning following the day of her labor, the binder is removed for good, and she slips into her chair while her bed is making. This is repeated once or twice a day until the fourth or fifth day, when she, if so disposed, gets up and dresses herself. No patient quits her bed against her will; yet the force of example is so great, that very few care to stay in bed when they see their companions up and about.

No woman is allowed to suffer from after-pains. Whenever these are complained of, one-quarter grain doses of morphia are administered every hour until relief is obtained. In stubborn cases of after-pains I have found nothing act so promptly as the exhibition of ten grains of quinia every six hours, until the ears ring. Bed-pans are not employed, except in cases of illness, or in cases requiring vaginal injections; but each woman has her own chamber-pot, which she uses indifferently, either in the sitting or the knee-elbow posture. Every woman is required to wash her own person at least once a day, and that with carbolic acid soap and a wad of fine oakum, which is at once thrown away. Only under very exceptional circumstances does the nurse cleanse the patient. Should the lochia become offensive, the woman is made to get out of bed and slip in a chair three or four times a day. This usually corrects the fetor; but if it does not, then and only then is a solution of potassic permanganate thrown up into the vagina. Firmly believing the nozzle of a syringe to be the medium of virous communication from patient to patient, I avoid the use of vaginal injections as much as possible. For a like reason, the temperature thermometer is not habitually used, but only in single cases as an aid to diagnosis.

Whenever the lochia are offensive, or the pulse is over 90, or the thermometer indicates a temperature higher than natural, or pelvic pains are complained of, or, in short, whenever any untoward symptom appears, quinia is given in from six to ten-grain doses every four hours, until the ears ring. In addition, for abdominal pains large doses of morphia are given, and the whole belly is painted with iodine, and covered with a mush poultice. The canonical purge on the third day is dispensed with. A patient has usually a movement of the bowels either before or on the day in which she gets up for good. If this does not happen, she takes four Lady Webster's pills at bedtime, which then act on the morning of the sixth day. As soon after getting up, as she feels strong enough, she takes a warm bath.

But few words are needed to explain why the ordinary chamber-pots are used, and why patients are made, once or twice a day after the first, to get out of bed and slip into a chair. The presence of putrescent fluid in the utero-vaginal tract is recognized by all writers as the great cause of the autogenetic variety of puerperal disorders. But the recumbent posture of itself necessarily tends to detain these poisonous discharges in contact with the traumatic lestions of labor. These discharges may also be partly imprisoned in the vagina through the swollen condition of the more external soft parts, or partly corked up in the uterine cavity by the presence in the cervical canal of a putrid clot. In such cases detergent vaginal injections are highly recommended. But clinically they will be found of limited value; for they cannot reach high enough, and do not ordinarily dislodge a large clot even when situated low down. True intra-uterine injections are not open to one of these objections; but, apart from their being attended at best with some degree of hazard to the patient, the operation is too delicate a one to be

intrusted to a nurse. Besides, in hospital practice the nozzle of a syringe, to say nothing of the fingers of a nurse, is, I fear, so often one of the vehicles for the transmission of virus, as to make this means of disinfection of doubtful propriety. In a local outbreak of fever, especially of the diphtheritic form, I should, however, suggest the use immediately after labor, of vaginal injections containing the nitrate of silver or the persulphate of iron, in quantities large enough to sear over the traumatic lesions of labor. Such injections I have had no occasion to try, but, they ought to inhibit active absorption and promote healthy granulation.

ON THE PREVENTION OF MAMMARY ABSCESSES BY THE APPLICATION OF THE PRINCIPLE OF REST.

Dr. W. Bathurst Woodman read a paper on this subject before the Obstetrical Society of London (*Med. Times and Gaz.*, Jan. 16, 1875). He had been struck with the rarity of mammary abscesses in animals, notwithstanding the forced abstinence from suckling which cats and dogs undergo from the drowning of their progeny, and in spite of the great distension of the udders of cows, mares, and other animals when driven to market, or for other reasons separated from their young. Acting upon this suggestion, he carefully abstained from those manipulations and questionable "gentle" frictions which have so long been customary in such cases, and with the most satisfactory results. Where an abscess was threatening, in place of employing liniments he enjoined perfect rest, the avoidence of all frictions and rough handling, and of suckling for a time—if possible from both breasts, but at all events from the most implicated; the horizontal position, careful application of strips of isinglass, soap, or lead plaster, or of an air-cushion with a hole in the centre, or of bandages taking their purchase from the opposite shoulder. In addition to these measures he employed preparations of opium, belladonna, or chloroform, applied in compresses, or ice, moist warmth, and leeches; the local congestion being also relieved by diaphoretics, diuretics, and aperients—belladonna, iodide of potassium, and sedatives being given if requisite. Illustrative cases of this method of treatment were given, exemplifying its advantages.

Dr. Barnes observed that the principle of rest had long been applied to the treatment of inflammation of the breast. He himself had learned the value of it from Trousseau, when a student in Paris thirty years ago. That admirable physician taught and illustrated it with great earnestness. He placed the breast at perfect rest by carrying straps of leather spread with *emplateur de vigo*, all round it, so as to lift it well up and exert constant support on the vessels. Thus œdema was prevented, and engorgement soon subsided. It must, however, be remembered that this form of pressure was ill borne in the first inflammatory stage. It was chiefly serviceable when suppuration had taken place and the abscess had been opened; the sac then rapidly closed. In the earlier stage he had seen leeches do excellent service. The pressure then must be lighter.

Dr. Ashburton Thompson said there were two modes of treatment not referred to in this paper—the administration of tincture of aconite, and total abstention from fluids during the necessary number of days. By giving minum doses of aconite every hour he had succeeded in cutting short inflammations of the breast which there was no doubt would otherwise have run on to suppuration very frequently; indeed, in three cases out of four. In cases of stillbirth he had hitherto found abstention from fluids sufficient in every case to avoid every kind of mammary disturbance. Ice was allowed in moderate quantity, and no other fluid, from the time of delivery until the fourth or fifth day, when the breasts generally return to their normal state of quiescence. He had had two cases recently in which this method of treatment had been perfectly successful. The deprivation of fluid caused but little distress.

Dr. Braxton Hicks thought the principle of rest had been gradually coming upon us for years, friction only being resorted to among the poor and ill-educated. Surgery at the present day was all tending to quietude. Manipulations only led to suppuration, and often produced the extra amount of stimulation required to set it up.

Dr. Murray observed that the application of belladonna plaster was of great service, keeping the arm at the same time fastened to the side. In some instances a slight process of friction upwards was productive of good.

Dr. Matthews, whilst heartily assenting to Dr. Woodman's views, thought that the public also had largely endorsed his practice, since he had observed that it was a very common proceeding to apply a large lead plaster (spread upon leather) to the breast in cases where it becomes necessary to get rid of the milk; this of course rendered friction and all meddling impossible. He had found two large and suitable handkerchiefs suitably applied—one by way of sling across the neck under the breast, the other in exactly the reverse way, over the breast, and tied around the body so as to include the breast between them, interposing a large pad of cotton-wool—to constitute a very efficient mode of applying pressure.

Dr. Edis remarked that the chief thing to be remembered was to limit the supplies, to act on the bowels, and to insure perfect rest to the mammæ. He was accustomed to order a belladonna plaster to be applied to the mammary region within twenty-four hours of delivery, thus exercising pressure as well as arresting the secretion of milk. Abstinence from fluids and great moderation in diet were enjoined for the first few days, an aperient mixture of sulphate of magnesia and iodide of potassium being given twice or thrice daily to relieve the bowels. The shoulders should be raised, and the arms kept perfectly quiet; the upper part of the chest being only lightly covered; any friction or drawing of the breasts being strictly prohibited. Where this method had been adopted he had never seen a single instance of mammary abscess. An evaporating lotion continuously applied to the mammæ was in some

instances sufficient to prevent the secretion of milk; but the pressure obtained from the plaster was of great service, and effectually prevented the employment of any friction.

TREATMENT OF PROLAPSE OF THE UMBILICAL CORD.

Dr. G. J. Engelmann observes that there are cases of prolapse in which it is not desirable to leave the progress of the labor wholly to the powers of nature—cases in which interference is necessary, yet no indications for operation exist. Now the first and most simple assistance that can be rendered is to properly direct the patient's voluntary efforts: either, as the state of the case demands, keeping her quietly in one position, refraining from pressure with the abdominal muscles, or, when labor is far advanced, to encourage her to aid the passage of the head by the exertion of all her energies. 1. Postural treatment.—Equally simple, and on that account neglected probably in clinical teaching as well as in the text-books, is the treatment by position, which is a valuable aid to the practitioner. It consists in placing the patient on the side opposite to that on which the funis has prolapsed, so that the cord may be relieved from pressure, when it may perhaps glide back into the cavity of the womb. When the prolapse takes place in one or the other sacro-iliac fossæ, the patient should be placed on her hands and knees, in the elbow-position. This position, however, is unfortunately very tiresome, and if too fatiguing, the patient must be placed in the corresponding side position, on the left side if the cord has prolapsed into the right sacro-iliac fossa. Dr. Engelmann has achieved good results by this method. Position alone, as Thomas some time ago remarked, will rarely if ever cause the return of the cord without the aid of manipulation, unless the bag of water is unbroken; and even then it may not. 2. Reposition of the cord.—The carrying back of the prolapsed loop into the cavity of the womb beyond the presenting part is a treatment that has been giving up as ineffective by some, whilst it is most warmly recommended by others. In Engelmann's cases reposition was accomplished in only seven of the eleven cases in which it was attempted; and though apparently successful in these seven cases, the cord not reappearing, only four of the children were saved. In the out-door department the results were but little better, reposition of the prolapse loop having been practiced in thirty-two cases, and, notwithstanding that the operation seemed to have succeeded in twenty-six of these, not more than sixteen children were saved—in fact, by reposition of the cord alone only thirteen, as delivery was hastened by operation in three other cases. The life of the child was saved in fifty per cent. of the cases in which reposition was apparently successful, and in forty per cent. of all the cases in which it was attempted: and as was only resorted to in more favorable cases, with well pulsating cord and normal pelvis, the plan does not seem to afford much encouragement. Reposition is justifiable in many cases, but it has its strictly defined indications. With few exceptions, it must be confined to cases of prolapse with head presentations, as it is only with the rounded and resistant head that, when the loop has been carried back beyond its greatest circumference, the uterus can by its contraction prevent the immediate return of the prolapse. Not unfrequently a life is lost by too obstinate adherence to this method of treatment, the continued pressure and traction required proving fatal to the child; and in the same way, even when apparently successful, pressure at a higher point may have arrested the circulation in it. It should only be undertaken when the os is so far dilated that the escape of the waters is no longer to be feared, that, in case of necessity, delivery by forceps or turning can be immediately resorted to. The best instrument for the purpose of reposition is Robertson's funis replacer, and when apparently accomplished the fœtal heart must be closely observed, as it is by this means alone that it can be ascertained that it has been really effected; the fœtal pulse becoming strong and regular, continuing so after several pains. 3. Anæsthesia.—The use of chloroform was frequently resorted to, and proved a valuable adjuvant in achieving reposition of the cord. 4. Forceps.—The forceps were resorted to about as often as the reposition of the cord. In fifteen of the thirty cases in which it was applied the child was saved. 5. Extraction by the feet.—Extraction by the feet, simply not following version, was practised in sixty-five cases, in forty-seven of which (72.3 per cent.) a living child was developed. The success naturally depends upon the favorable prognosis offered by breech-first labors, in which alone it can be resorted to, and the treatment is mainly a postural one. Extraction by the feet was practised in fourteen of the lying-in house cases, and in only one was the child delivered dead, putrid—a case which should justly be excluded. The results were less favorable in the out-door cases, the accoucheur not unfrequently being called in too late. The patient should be so placed that a return of the presenting loop may be facilitated, all muscular strain must be avoided, the membranes must, if at all possible, be preserved intact until the os is sufficiently dilated, and when this is the case, the parts being yielding, we must not wait for threatened signs on the part of the fœtal pulse, but at once deliver by version. The operation which was most frequently resorted to and which proved, comparatively speaking, most successful, was turning by the feet immediately followed by extraction. Of the 125 cases so operated on, seventy-two were favorable, 57.6 per cent. of the children were saved; and this result holds good not only for transverse and shoulder presentations, but also for head presentations. 7. Cephalotrity.—Craniotomy can certainly not be classed among the operations called for by prolapse of the funis, yet Engelmann makes mention of this operation, as it was so often necessitated for preservation of the mother, and as the large number of these operations, twenty-five amongst 365 deliveries, complicated

with prolapse of the cord, most forcibly proves the frequency of the highly contracted and this distorted pelvis as cause of the prolapse.—*American Journal of Obstetrics.*

TWO CASES OF INOCULATION WITH THE SEPTIC LOCHIA OF PUERPERAL WOMEN.

BY WILLIAM STEWART, L.R.C.P. EDIN., BARNSLEY.

The elucidation of the nature of the poison and the etiology of puerperal septicæmia is of such vital importance, and, at the present time, occupies such a prominent place in the mind of the profession, that I feel no apology is required from me for bringing under the notice of the profession the two following cases.

Case 1. Miss G., aged 52, a delicate woman, frequently suffering from hepatic derangement, and the subject of an obscure internal abdominal tumour, said to have followed an injury from a railway accident, called me to see her on Sunday, October 8th, 1871. I found her suffering from most excruciating pain in the right forefinger. The pain was so agonising that I was led to inquire whether she had not scratched or injured it in any manner, when she informed me she had very slightly scratched that finger and the one next to it a few days previously. Upon remarking further that I was afraid she had received some poisonous matter into the scratch, she then remembered having given an injection to a lying-in woman on the evening of the 6th (about thirty-six hours before my visit), whose nurse was very inexperienced, and had neglected to change the patient for several days after delivery. I was informed by the medical gentleman in attendance upon the confinement, that his patient had peritonitis at the time. My patient had wrapped a piece of adhesive plaster round the middle finger, which was therefore quite unaffected, but unfortunately had left the scratch on the forefinger totally unprotected. Here, then, was the clue to the case, decomposing lochial discharge applied to the recent scratch. This case ran a most acute and rapid course. Thirty-six hours after the application of the septic matter, I saw the patient. The finger was then hard and undurated, but not much swollen. The back of the hand was very red and much enlarged. The inflamed lymphatics in red streaks could be seen passing up the forearm; and in twelve hours more, in spite of all measures adopted to arrest the advancing disease, the finger had mortified. The next day, her relatives being very anxious, I met in consultation two neighbouring medical gentlemen, who agreed with me as to the cause of her symptoms: but the gangrene continuing to spread soon involved the other fingers, hand and wrist, and was followed by a fatal termination on the 10th, being ninety hours from the application of the poison, and about forty-eight hours from the time when I first saw the case. Throughout the short course of illness, the general symptoms were those of high fever, persistent vomiting, and, towards the close, delirium.

Case 11. The poison in this case was introduced from a puerperal patient in my own practice. Mrs. L., a primipara, was delivered by Dr. Heath, my assistant, on October 24th, 1874. Three days afterwards, symptoms of acute peritonitis set in, preceded by decomposition of the lochia and accompanied by profuse diarrhœa, and other symptoms of blood-poisoning. Injections of Condy's fluid into the uterus and vagina were used to disinfect the discharge. These were administered by Mrs. M. (her mother), who, on November 5th, two days before her daughter's death, had inflicted a slight wound with a table-knife over the first joint of her left thumb. The wound being slight, she did not consider it necessary to mention it, or to apply any dressing to the part, but continued to administer the injections without any protection to the thumb. On the 7th, I found her suffering from the most violent pain in the thumb, which was swollen and indurated; the wound was gaping and sloughy in appearance, the back of the hand red, shining, and erysipelatous. A free incision on the thumb above the wound, followed in a few days by another on the back of the hand, gave exit to a large quantity of pus, and relieved to a certain extent the severity of the symptoms; but the purulent affection seemed to travel along the cellular tissue of the forearm, which in turn had to be relieved by incision. The lymphatics were inflamed as high as the elbow, where there was a patch of erysipelas. This case terminated favorably in six weeks, leaving only the first joint of the thumb stiff.

These cases appear to me to be specially instructive: first, because of the danger to which attendants are exposed when it becomes necessary to give vaginal injections to puerperal patients. And I think it becomes the duty of the medical attendant to warn the nurses to take precautions not to allow the discharge to come into contact with any recent wound or abrasion of skin. Secondly, they are exceedingly interesting from their tendency to throw light upon the nature and production of puerperal septicæmia, as they show that the application of decomposing lochia alone to a recent scratch or wound has been sufficient of itself to produce gangrene of the part and death of the patient in the one case, and a very severe attack of phlegmonous erysipelas in the other, although no puerperal condition existed in either of the inoculated subjects. I think we may, therefore, draw the conclusion, that the passage of decomposing lochia over any abraded surface in the vaginal passage is sufficient to produce puerperal septicæmia without the importation of any other specific poison. In this manner, we may account for the disease attacking much more frequently primiparous cases, as the vagina and perinæum are much more likely to be slightly lacerated in those than in multiparæ. If it were possible to apply as effectually the antiseptic treatment to these cases as it is carried out by Professor Lister in surgical cases, I have little doubt that as good results would be obtained. Obstetricians too frequently begin to lock the door when the horse is stolen; we wait until there is evidence of decomposition having already taken place in the lochia before steps are taken to prevent or counteract the

danger. Cannot some antiseptic means be devised to be used from the time of delivery? I should be inclined to think that folds of antiseptic gauze instead of the ordinary napkin, and an antiseptic lotion for detergent purposes, would be of very great service, and might prove quite sufficient to prevent the setting in of putrefactive change in the discharge.—*British Medical Journal.*

OPHTHALMIA NEONATORUM.

By Jabez Hogg, Surgeon to the Royal Westminster Ophthalmic Hospital, &c.

A paragraph occupying a prominent place among "Notes on Current Topics," in the *Medical Press and Circular* of last week, taken from the *Boston Medical and Surgical Journal*, must not be passed over in silence, or it may be the means of inflicting considerable mischief on a class of the most helpless sufferers from eye diseases.

Dr. Derby, writing on Ophthalmia Neonatorum, says that "Dr. Williams, of Boston, stands almost alone in his condemnation of the use of nitrate of silver lotions in this complaint." This is by no means the fact; I am indeed inclined to think that Dr. Derby knows but little of the modern treatment of the ophthalmia of new-born infants, or he would not have hazarded such an assertion. At all events, he would have been aware that strong solutions of nitrate of silver are now placed among the bygone therapeutical agents of the ophthalmic practitioner, in not only ophthalmia neonatorum, but in most other eye affections. For my part, I cannot too severely denounce the mischievous treatment propounded by this gentleman, namely, that of daily applying a ten-grain solution of the nitrate, and if this be found inefficient then "the stick of nitrate of silver of Von Graefe, the *lapis mitigatus*, formed with twice the bulk of nitre to one of nitrate of silver." He goes on to say, "these are not dangerous remedies." On the contrary, I beg to warn your readers against such a mode of treating this affection, as it will generally be found to lead to grave complications that always aggravate the disease and retard or prolong the cure.

I can only gather from such statements as those just quoted that the ophthalmia of new-born infants is still, as in days gone by, looked upon by some practitioners as a purulent affection, the result of a direct specific inoculation, or application of puriform matter, gonorrhœal or leucorrhœal, to the eyes, during the passage of the head of the infant through the vagina, and consequently the disease must be met as in the old-fashioned heroic calomel and bleeding days. My experience of these cases tells me this is a great mistake, for even among the poor who crowd our hospitals only a small percentage of the cases can be directly traced to a previous gonorrhœa, and certainly among the middle classes it is quite an exceptional cause, and in a great many instances it appears to be a part of the dyscrasia of the mother, for I have been called upon to treat every infant born to the same mother on the third or fourth day after birth. The disease at the outset is nearly always a simple catarrhal affection, the result of some cold or atmospherical influence. The close and unwholesome air of the sick-room of the poor, and in which they are too often obliged to live and sleep, may often be the cause, or, as Dr. Mackenzie pointed out, it may be due to want of care in washing the infant—the careless intrusion of soap, or of whisky or gin, still absurdly enough often applied to the head "to keep the infant from taking cold." Ophthalmia neonatorum must be regarded in a vast proportion of cases as a catarrhal affection, requiring, if seen at the accession of the attack, the simplest remedies for its cure, the most important among which is strict attention to cleanliness, and the constant removal of the discharge from the eyes by the gentlest means as soon as it is secreted. The application of warm water alone, and when the secretion is profuse, followed by a very mild astringent collyrium, composed of alum, or a weak solution of the permanganate of potash, is all that we need apply. Should the case be neglected for a few days, and the papillæ of the palpebral surfaces and vessels of conjunctiva become swollen and injected, then a very weak solution of one or two grains of nitrate to the ounce may be occasionally instilled with advantage, but this should invariably be followed up immediately by the free application of cod-liver oil. At the same time, it is of the utmost importance to look to the quality of the mother's milk, and see that she is well nourished and properly cared for in every way. The administration of ten drops of cod-liver oil to the infant is often a valuable adjunct to the means employed. On the other hand, if by any chance the medical practitioner should be induced to resort to the application of strong lotions of nitrate of silver, or the more dangerous "solid stick" of *mitigated* destructives we must expect to see, in the majority of cases, the delicate epithelial and corneal layers quickly removed, and followed by chemosis and granular lids, or ulceration and opacity, with prolapse of the iris, and ultimate loss of sight.—*Dublin Medical Press.*

LOCAL TREATMENT OF LICHEN URTICATUS.

It will be agreed that there is a form of skin-disease specially affecting children, characterised by wheals, papules, and severe itching, worse at night, yet independent of discoverable parasite. It may be acute or chronic, is generally obstinate, liable to recur after intervals of relief, and is so distressing that it seems well to record good results obtained from combinations not in ordinary use. I refer to two ointments; one containing equal parts of calomel ointment and extract of belladonna; the other, storax, according to this, which is a recognised formula: ℞ Storacis oz. i; ceræ flavæ gr. 120; olei olivæ fl. oz. ss. Misce secundum artem. In illustration, I subjoin two cases out of twelve observed.

Case I (acute).—Ellen H., aged 16 months, had been weaned one month, when she got diarrhœa. Soon afterwards, she "came out all over like nettle-

stings", and had severe itching, worse at night, and preventing sleep. She had had previous good health, and was fairly nourished. She was vaccinated at four months. She had eleven teeth, and one pressing; and was fed on milk. The rash now was of scattered papules on the trunk and limbs; wheals came out at times; the feet were free. The parents and other children were not at all affected.—October 12th. She was ordered to use one soft-soap bath, weak; then to rub in unguentum hydrargyri ammoniatum.—October 16th. The bath gave much pain; there was no relief. ℞ Unguenti hydragyri subchloridi, extracti belladonnæ, āā partes æquales. Signa: To be painted on night and morning. An oatmeal-bath was also ordered.—Oct. 21st. There was much relief. The urine was hot. A mixture of acetate of potash was ordered.—October 30th. There was very much relief. She slept well.—November 6th. She was clear till yesterday, when some relapse occurred, which readily yielded to the same remedies.

Case II (chronic).—Albert P., aged 2¼ years, came under notice on August 10th, 1874. He had attended the Children's Hospital twelve months previously with an attack similar to the present. He had then suffered one week, and had been vaccinated in the week before that. He remained a patient for *five months*, when he got some relief, but was never quite free, and had been worse lately. The body and limbs were covered with scattered papules, which itched violently, worse at night. Sometimes a rash like "nettle-stings" came out. The hands and feet were free. The mother was cleanly; neither she nor her two other children had had any rash whatever. The child was well nourished and cared for. He got at first sulphur ointment and quinine mixture; on September 25th, rhubarb and magnesia mixture, and ammoniated mercurial ointment; and on October 9th, mixture of chlorate of potash, and carbolic acid ointment.—October 16th. Up to this date, there was no marked relief. Storax ointment was ordered to be applied night and morning.—October 30th. The mother reported much improvement from the time of commencing the last ointment; he had much better nights.—November 13th. Improvement continued. The child seemed well.

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TREATMENT OF HOOPING-COUGH.

Dr. Mascarel states (*Bulletin Gen. de Therapeutique*, June 30, 1874) that in his opinion hooping-cough depends on two elements—a nervous element and a catarrhal element. The nervous element resides in the inferior branches of the pneumogastric nerves. This is so true that there is a form of gastric hooping-cough in which every attack of coughing is accompanied by vomiting. The catarrhal element has its seat at the orifice of the glottis and of the larynx as well as through the whole extent of the mucous membrane, both aëril and digestive, receiving filaments from the two pneumogastrics, as is rendered evident by the masses of mucus of various kinds coughed up by children during and at the termination of their crises. If we once admit these two principles—a nervous element and a catarrhal element—we must act therapeutically against both; and as the nervous state is antecedent to the catarrhal state, we ought to act specially against the neurotic. Every morning between six and eight a minute does of tartarized antimony should be given in solution in water. In children over two years of age the antimony may be replaced by ipecacuanha. Every evening at the last meal a small pill may be given containing one-eighth of a grain of extract of belladonna, which may be gradually increased till five or six of the pills are taken at once. Dr. Mascarel has tried this plan for from eighteen to twenty years, and has hardly ever known it to fail in relieving or completely curing the disease in three weeks. The use of the belladonna should be gradually discontinued. An essential condition of success is to have the extract of belladonna pure, and one test of its purity is the appearance of a peculiar exanthema over the face and body of the child, which may so alarm the parents that it is prudent to forewarn them of its occurrence. This only appears, however, once in seven or eight cases, and its slight gravity is shown by its spontaneous disappearance in the course of a few hours. A second evidence of the goodness of the preparation is the dryness of the throat, which many of the older children complain of. Dilatation of the pupils is rarely observed, unless the remedy has been applied directly to the eyes. In cases where the cough is extremely violent and is accompanied by vomiting, when it may produce hernia and ecchymosis of the conjunctiva, the employment of emetics is contraindicated, and instead of them small doses of syrup of morphia, with a little ether may be given, the use of the belladonna being continued. After breakfast, a few teaspoonfuls of strong coffee may be given with advantage. Dr. Mascarel does not believe in the beneficial effects of change of air, as he has had cases under his care that have come from a distance, and in which, nevertheless, the disease pursued its course unaltered. — *Practitioner*, Aug. 1874.

INJECTION OF ERGOT FOR INTERNAL HEMORRHOIDS.

DR. ORR reported to the Cincinnati Academy of Medicine (*Clinic*, April 3, 1875) that he had lately made use of rectal injections of the fluid extract of ergot in two cases of internal hemorrhoids. He ordered a half drachm of the fluid extract to be thrown into the rectum together with one ounce of water daily. When he commenced the treatment the tumours were quite large, but within a few days disappeared entirely, as did also the symptoms produced by them.

Dr. Conner had also treated a case of internal hemorrhoids occurring in a woman in the manner described by the last speaker. She reports herself entirely relieved. He mentioned Langenbeck's suggestion that injections of ergotin be made with the hypodermic syringe and that it be thrown into the submucous connective tissue. Had employed the agent subcutaneously in two cases of varicocele with excellent results in one of these. In this one, but two injections were found necessary. The latter of the two was followed by an abscess, in connection with which the doctor mentioned the curious fact, that, although the injection was made on the left side, the abscess occurred on the right; he was certain that the septum had not been pierced by the needle. In the other case referred to, four or five injections had been made with no result whatever. He was inclined to attribute many of the failures following the use of ergot to unreliable preparations. In two cases of varix of the lower extremity, its employment was a perfect failure.

ON THE TREATMENT OF SUSPENDED ANIMATION IN NEW-BORN CHILDREN.

Notes of a Lecture at the Harvard Medical School, by Charles E. Buckingham, M.D., Professor of Obstetrics.

With some obstetricians, the condition of the newborn child, compared with that of the mother, is of secondary consequence. I confess it is so in my estimation. This is a matter which depends upon the religious views of different individuals, and of course is not to be here discussed. Both the mother and the child require attention and you can oftentimes give directions for the benefit of the child while you are making the required pressure over the uterus which has just expelled it.

Sometimes the child cries lustily as soon as it is expelled. Sometimes it gasps feebly, with long intervals between its respirations, which may of themselves become more frequent and stronger, or less frequent and more feeble. It may come into the world blue and flabby, and without a visible sign of life. If there be beating of the umbilical cord, however, there will almost certainly be a gasp, and that gasp may be repeated; or if not repeated unaided, your assistance may restore the child to life. Even if there be no pulsation to be seen or to be felt, you may in some cases hear it by putting your ear over the heart. You need not trouble yourselves about a ligature upon the cord; make the child breathe. And for this end it is not worth while to spend time in trying the Marshall Hall method: you have a chest to deal with which has never been expanded, and a pair of lungs which have never been inflated. Send for a couple of pails of water, one cold and the other rather warmer than it would be comfortable to take an entire bath in. A child who has never breathed, if rapidly dipped in these alternately a few times will often cry audibly. But you must not wait for the pails of water before trying other measures to make the child breathe; if you do, it will be just so much neglect. With a dry rag over your little finger, thoroughly wipe the mucus from the fauces; that operation alone will make some children cry. Take the child up in a dry towel, or a pocket-handkerchief if you have one at hand, or in anything which will keep it from slipping from your grasp; hold it with the scapulæ in the palm of your left hand, the finger and thumb embracing the occiput, which should be firmly pressed backwards; the finger and thumb of the right hand should close its nostrils. Apply your mouth to that of the child and try to inflate its lungs; you need not fear that you will blow too hard; indeed, unless you place a moderately dry cloth between the child's mouth and your own, you will find it difficult to inflate at all. But why press the head forcibly backwards? Because in so doing you close the passage of the œsophagus; and should you neglect that precaution, you would find the stomach inflated instead of the lungs, and a new obstacle thus put in the way of the child's breathing, by your own carelessness.

You should inflate the lungs ten or fifteen times in a minute; and the process should be continued as long as there is the slightest possibility of life. The occasional alternate dipping will help your efforts. In some cases, a rapid and more forcible pulsation of the heart is felt by you upon your very first insufflation, and this, as a rule, will be repeated and increased in strength with every succeeding attempt, until as you take your lips away you will each time see the child gasp, open its eyes, heave its chest, and at last cry. The color, which has been leaden and dull, becomes of a positive red. The points upon which you placed your fingers, before the operation, became white, and remained so long enough for you to count twenty or more; but now the color returns more and more rapidly, and you will find, as the child's respirations become independent of your aid, that the color returns almost immediately on the removal of the pressure.

Be sure that all chance of life is gone before you stop your exertions: I have known an infant, who was laid aside in a sheet as dead by one of our profession, to live to adult age. So long as the breathless child is cool, if pulsation exists even to a slight degree, life is still possible. Excess of heat to such a child will diminish its chances for life. Why then, you may ask, do I dip it in hot water, as well as in cold, to make it breathe? Simply as a stimulant to its skin. It is not to be left in the hot water an instant: it is dipped in hot water for the same reason that I would spank it, or slap it with a wet towel, the object being to irritate its nervous system and make it cry.

If you will now simply wrap the resuscitated infant in a blanket, and leave him without washing or dressing or food for a few hours, he will be better off than if you weary him with further attentions.

Bicarbonate of Soda in Toothache.—Dr. Dyce Duckworth contributes a short memorandum on this subject to the London *Practitioner* for April. He was called on to treat a case of very severe

toothache, and tried various ordinary remedies, including chloroform and carbolic acid, without any benefit to the patient. He then remembered having read that the pain might be relieved by holding in the mouth a solution of bicarbonate of soda. He at once gave the patient half a drachm in an ounce of water, and, to his astonishment, the pain ceased immediately, and complete relief was secured. He thinks that, as the remedy is so simple and the disease so distressing and often intractable, this treatment may be worthy of notice and of imitation.

ON THE VALUE OF TAR IN BRONCHIAL CATARRH AND WINTER-COUGH.

BY SYDNEY RINGER, M.D.,
Professor of Materia Medica and Therapeutics in University College, London; and

WILLIAM MURRILL, L.R.C.P.

The frequent and popular use of this remedy, both by the profession and by the laity, in France and Belgium, led us to try its effects. Patients so susceptible to cold, that they were obliged to remain indoors the whole winter, informed us that this remedy curtailed considerably the duration and lessened the severity of their catarrhal attacks, and that, by an occasional recourse to the tar, they became less prone to catch cold, and could more freely expose themselves to the weather, without incurring an attack. It will be seen that our observations confirm these statements.

We employed tar in two-grain doses, made into a pill, every three or four hours. From October to January, inclusive, we carefully watched its effects on twenty-five patients, whose ages varied from 34 to 70, the average being 44. All these patients had suffered for several years from winter-cough, lasting the whole winter. They were out-patients, and visited the hospital weekly, or oftener. Most of them were much exposed to the weather, whilst some were so ill, that they were obliged to stop work, and, therefore, were less exposed.

These patients suffered from the symptoms common in winter-cough—paroxysmal and violent cough, the paroxysms lasting from two to ten minutes, and recurring ten to twelve times a day, and, in the night, breaking their rest. The expectoration, frothy and slightly purulent, was generally rather abundant, amounting in some cases to half-a-pint or more in the day. The breathing was very short on exertion, but most could lie down at night without propping. The physical signs showed a variable amount of emphysema, with sonorous and sibilant rhonchus, and occasionally a little bubbling rhonchus at the base.

These patients usually began to improve from the fourth to the seventh day; the improvement rapidly increased, and, in about three weeks, they were well enough to be discharged. The improvement was so decided, that the patients returned to their work; even those who in previous years had been confined to the house the whole winter. The cough and expectoration improved before the breathing. In several cases, the expectoration increased during the first three or four days; but its expulsion became easier, and, with the improvement in the cough and expectoration, appetite and strength returned.

On discontinuing the tar, a relapse often occurred in a week or two, and the patients returned with a request for more of the same medicine, and then, a second time, the symptoms quickly subsided. We found it useless in bronchial asthma, and its effects were more evident in cases where expectoration and cough were more marked than dyspnœa.

We have no doubt that tar is a good, useful, though, perhaps, not a striking, remedy in these troublesome affections; and certainly it is more efficacious than the drugs generally employed.

It may be remarked, that tar is useful in the same cases for which the spray of ipecacuanha wine is serviceable. The spray, we find, acts much more quickly, and, unlike tar, it lessens dyspnœa even before it improves cough or diminishes expectoration.

We have this year continued to carry on our observations with ipecacuanha wine spray, and with results confirmatory of the statements made in August last. We find, however, that some patients are very intolerant of ipecacuanha spray, which causes in them a good deal of irritation, and even tightness of breathing. It is advisable, therefore, at first to dilute the wine with one or two parts of water; a precaution especially needful for patients affected with much dyspnœa, with lividity; for the spray may for some hours much intensify the difficulty of breathing and lividity, so as to alarm the patient and friends.

It may be not much out of place to mention here that, in several cases, we have found the spray very serviceable in non-febrile inflammatory sore-throats, the mucous membrane being swollen and very red. We have found it useful, too, in hoarseness from congestion of the vocal cords. Where the hoarseness has lasted a few days only, or one or two weeks, the spray often speedily cures; but, where the hoarseness has persisted three months or longer, the spray even improves the voice considerably, but some hoarseness remains.—*British Medical Journal.*

THE USE OF QUINIA IN INFANTILE DISEASES, AND ESPECIALLY IN HOOPING-COUGH.

Dr. Rapmund, an essay on this subject (*Deutsche Klinik*, 1874, p. 164), remarks that quinia and and cold affusions are the remedies which posses the most certain and energetic antipyretic properties. Both are particularly useful in country practice, when the practitioner cannot have recourse to therapeutic agents of too complicated a character, partly on account of the difficulty of seeing his derections properly carried out, and partly on account of the stupidity of the patients. The chief objections to quinia are it cost and extreme bitterness. Its power over febrile affections is, however, very great. In 1872. Hagenbach, in the *Annales de Thérapeutique*

Infantile, demonstrated that quinia acts not only in in lowering the temperature and moderating the frequency of the pulse, but in shortening the period of convalescence. It is at once, he maintained, an antipyretic and a tonic. His observations were made on children arrived at the period of second dentition. Dr. Rapmund, on the other hand, chiefly observed its effects in much younger children, some being still at the breast. He administered quinia in four cases of scarlet fever, eleven cases of measles, two cases of smallpox, three of erysipelas, nine cases of lobular pneumonia, and three of follicular enteritis. Country practitioners know very well that patients do not send for medical advice in the ordinary exanthemata unless serious symptoms appear. In such cases he speaks in terms of praise of the immediate administration of quinia. Previouly to its being given, the child has often been in his practice excited, sleepless, delirious, and the cause of great alarm to the relatives. But as soon as a sufficient dose had been taken, the temperature and the frequency of the pulse fell, and the children enjoyed a calm and prolonged sleep. This hypnotic effect is of the greatest importance in children, enabling them to recover their powers during repose. Its value has been particularly insisted upon by Profession Jurgensen in respect to the treatment of croupal pneumonia. Quinia has also a marked influence in rendering the march of febrile diseases benign. Vogel, in the *Dictionnaire des Maladies de l'Enfance*, has recently declared that quinia is the only remedy that has succeeded in his hands in erratic erysipelas; and Dr. Rapmund has been equally successful. The dose was about two or three grains per diem. The strength of the patient must be kept up, especially when the erysipelas spreads. The affection in which quinia is serviceable *par excellence* is the lobular pneumonia of infants, and Dr. Rapmund prides himself on having obtained seven successes out of nine cases. In this disease death supervenes in consequence of cardiac insufficiency due to the violence of the fever, and it is obvious that quinia is exactly adapted to conteract this condition. When the extremities are pale and cold and cyanosis has set in, quinia is useless; but in a less advanced stage, when the febrile symptoms are acute and the temperture and pulse are much above the normal, quinia is formally indicated, and under its influence not only does the fever diminish, but the thoracic symptoms improve. The number of respirations, which often rise to eighty per minute, falls to thirty or less; the nostrils cease to dilate, the contractions of the diaphragm become less painful, and the child becomes calm. In cases of hooping-cough quinia appears to diminish the violence of the attack, and better rest is obtained at night; and it appears to prevent complications, and to render the course of the disease much more uniform and benign. Children should be well supported either by means of milk or by beef-tea. In very feeble infants, small quantities of wine may be administered. In regard to follicular enteritis, careful treatment with a wet nurse is essential, and quinia is a valuable adjuvant. When from any cause quinia cannot be taken by the mouth, it may advantageously be administered in the form of a clyster. Dr. Rapmund prefers the hydrochlorate of quinia, and its intence bitterness may be to some extent concealed by the addition of a little glycerin to the mixture. The flavour is also masked by its being dissolved in coffee.—*Practitioner*, Aug. 1874.

TREATMENT OF TYPHOID FEVER BY COLD.

Dr. F. T. Roberts, Assistant Physician and Teacher of Clinical Medicine in University College Hospital, gives (*Practitioner*, January, 1875) the following as the conclusions which he has arrived at with respect to the treatment of typhoid fever by cold.

"1. It is highly desirable that the members of our profession should be more generally impressed than they are at present with the usefulness of the various modes of applying cold to the surface of the body in febrile cases, under certain circumstances; and that they should be prepared without hesitation to carry one or other of them out efficiently whenever this plan of treatment is indicated. This applies to typhoid in common with other fevers.

"2. On the other hand, to adopt a routine hydropathic treatment of any fever seems to me most objectionable, and this applies especially to the more severe methods which are advocated. As already remarked, they are not easily carried out in general practice; they are certainly not required in a large proportion of cases; most of them are anything but pleasant to the patients, and they may prove very trying and exhausting, especially if frequently repeated, as they usually need to be if the treatment is efficiently fulfilled; while it must be remembered that they are not harmless measures, but may have a powerful influence for evil as well as for good. With regard to typhoid, many cases do not come under observation until it is too late to attempt to check the primary fever, even supposing that the intestinal lesion could be thus limited. For these and other reasons I do not see that, at present at least, a hydropathic treatment of typhoid fever in general practice has any claim to our support. If it is thought worthy of trial it ought first to be fairly tested in *bonâ fide* cases of this disease, and under the strictest and most competent supervision. With regard to sponging of the skin, I believe that this is often very useful, and ought to be employed far more requently than it is at present, in typhoid as well as in other fevers. With proper care it does no harm, while it often gives much relief, and is beneficial in other respects.

"3. The cases in which the more severe methods of applying cold are indicated are those in which the temperature is already very high and remains so, or shows a tendency to rise rapidly, especially if at the same time there are signs of much nervous disturbance. Unquestionably this plan of treatment is not resorted to under these circumstances nearly so frequently as it ought to be. It is difficult to lay down any exact rule as to what tempera-

ture indicates the necessity for adopting it, but if it reaches to 106° F. and shows no tendency to fall, or, still more, if it continues to rise, the treatment deserves due consideration. Necessarily much will depend on the actual condition of the patient, and every case must be thoroughly considered in all its features. The best method seems to me decidedly that of placing the patient in a tepid bath, and gradually cooling this. Affusion over the head is useful if there are marked nervous symptoms. Of course it is imperative that this treatment should be always conducted under the strictest supervision, and its effects carefully watched."

THE CANADA MEDICAL RECORD

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EDITOR:

FRANCIS W. CAMPBELL, M.A., M.D. L.R.C.P., LOND.

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MONTREAL, JULY, 1875.

RESULT OF THE ELECTIONS.—The following are the names of the newly-elected members of the Medical Council of the College of Physicians and Surgeons of Ontario:—Territorial Representatives; Dr. Edwards, Strathroy. Western and St. Clair; Dr. Hyde, Stratford, Malahide and Tecumseth; Dr. Wm. Clarke, Guelph, Saugeen and Brock; Dr. D. Clarke, Princeton, Gore and Thames; Dr. Henwood, Brantford, Erie and Niagara; Dr. Macdonald, Hamilton, Burlington and Home; Dr. James Ross, Toronto, Midland and York; Dr. Allison, Bowmanville, King's and Queen's; Dr. J. Dewar, Port Hope, Newcastle and Trent; Dr. Irwin, Wolf Island, Quinte and Cataraqui; Dr. Grant, Ottawa, Bathurst and Rideau; Dr. Brouse, Prescott, St. Lawrence and Eastern. Collegiate Representatives: Dr. McLaughlin, Enniskillen, University of Toronto; Dr. Berryman, Yorkville, University Victoria College; Dr. Alex. Bethune, Glanford, University Queen's College; Dr. Hodder, Toronto, University Trinity College; Dr. Aikens, Toronto, Toronto School of Medicine; Dr. Lavell, Kingston, Royal College of Physicians and Surgeons, Kingston; Dr. Lynn, Ottawa, University of Ottawa. Representatives at large: Dr. A. Carson, Whitby; Dr. Cornell, Toledo, Dr. Morrison, Forest; Dr. Muir, Merrickville; Dr. Bogart, Carlton Place. Homœopathic Representatives: Dr. D. Campbell, Toronto; Dr. Logan, Ottawa; Dr. Vernon, Hamilton; Dr. Morden, London; Dr. Henderson, Strathroy.

W. G. BEERS (defendant in Court below), Appellant, and H. M. BOWKER (Plaintiff below), Respondent.—TASCHEREAU, J., dissenting.—The respondent sued the Appellant for libel, contained in an article published in the Canada Journal of Dental Science. The article in question charged the respondent with having used professionally as a dentist, a certain amalgam mineral paste for filling teeth. The plea of Beers was that Bowker had previously, in an article published by him in the Canada Medical Journal, stated that the use of amalgam, a pernicious compound, was encouraged by the Dental Association of Quebec, of which Beers was a member. I would reverse the judgment which condemned Beers to pay $10 damages, and put the parties out of Court, leaving each to pay his own costs.

VACCINATION IN SCOTLAND.

SCOTLAND has always stood high as a country where medical science is cultivated with earnestness and assiduity. The tenth annual report on the vaccination of children in that part of Britain compares very favorably with statistics of vaccination in England. During the ten years from 1864 to 1873, 1,149,352 children were born in Scotland, and no less than 1,011,524 of these were successfully vaccinated. Of the 137,828 cases not vaccinated, 97,699 died before vaccination, which is not compulsory until the expiration of six months after birth. In 5,811 cases the infants were said to be incapable of being vaccinated, either from severe constitutional peculiarity, from previous vaccination, or from having had the small-pox. The operation was postponed for medical reasons in 8,118 cases, and in the remaining 22,200 cases the children had been removed from their birthplace before vaccination. It is we think, a pity that the period for non-performance of vaccination should be so long as six months; three months would be quite long enough. During the ten years from 1855 to 1864, 75 per cent. of the deaths from small-pox occurred in children under the age of five, whereas since 1864 only 25 per cent. of the deaths from small-pox were so caused. Nothing could better illustrate the advantages of the general system of the Registration, which is in operation in Great Britain, than the figures given above. Until we obtain such a system, and have it in operation in Canada, it is useless to attempt to enforce compulsory vaccination—for in our opinion it is impossible to carry it out. True, something may be accomplished—but compared to the Scottish Statistics, our

success must indeed be small. We hope our friends in Montreal who are at present working with so much energy on behalf of Sanitary science,—and for which we accord them our warmest praise,—will look at this matter, and press upon our Dominion Legislation the immense benefits which would follow the passing of an act, similar in scope to the act now in operation in Great Britain for the Registration of Births, Marriages and Deaths. Until this is accomplished, the energy of our Sanitary friends will not bear fruit such as it deserves.

MEDICAL MEN AND LIFE INSURANCE.

In July, 1874, two medical men of Limerick, Ireland, named Sheedy and Meehan, were convicted at the General Assizes in that town of conspiracy to defraud the New York Life Insurance Company by false and fraudulent representations as to the health and habits of persons examined by them, on proposals for Life Insurance, were convicted and sentenced to twelve months imprisonment in the Limerick Gaol. At the meeting of the General Medical Council of Great Britain, held in June of the present year the names of these two men were removed from the Medical Register, thus disqualifying them forever for the practice of their profession in Britain.

BISHOP'S COLLEGE CONVOCATION.

The Annual Convocation of this University was held in the large hall of the University on the 24th of June, which was crowded to excess, when the most satisfactory reports were made of progress in the various faculties. The Hon. George Irvine (late Attorney General Province of Quebec) the newly elected Chancellor in place of the late Hon. Edward Hale, occupied the chair, supported on either side by their lordships, the Bishop of Quebec and the Bishop of Montreal, Metropolitan, and R. W. Heneker, Esq., of Sherbrooke, the Vice-Chancellor. The Faculty of Medicine presented three candidates for graduation, viz., Mr. John Davis of George town, Barbadoes; Mr. J. Arthur Pidgeon of Quebec, and Mr. Frederick Benoit of Montebello, Que., who duly received the degree of C. M., M. D. Prof. F. W. Campbell addressed the graduates in medicine, and Dr. Pidgeon delivered the student's valedictory; various other addresses were delivered, and the occasion was looked upon as a memorable one in the history of the University, as it was announced that the finances were in a most satisfactory condition, the college being out of debt. We hear that among the friends of this institution, there is a strong desire to organize a law and engineering Faculty.

PUBLIC HEALTH MAGAZINE.

We have received the first number (July) of a new publication bearing the above title, issued and edited by Dr. Baynes, of Montreal. In general appearance, it is very creditable, and the contents are interesting and instructive. The subject of sanitary science is one which is attracting, we are glad to say, a considerable amount of public attention at the present time, and it is meet that sanitary literature should emanate from the Metropolis of the Dominion. Dr. Baynes has for some time back devoted much attention to the subject of hygiene, and as editor of the new Health Magazine he has our warmest wishes for its success.

MEDICAL FACULTY BISHOP'S COLLEGE.

We have received the 5th annual announcement of this Faculty, which informs us that the Session will open on the first of October next with an introductory lecture by Professor Wilkins. Several changes have occurred since last Session in the staff of the Institution, but we notice that the new additions are names well known among the Profession in Montreal. We notice also that this Faculty claims the honor of being the only school in Canada which teaches Practical Physiology. They have also established a chair of Minor Surgery, with a view of practically teaching students all those minor operations which form so important a part of a general practitioner's duty.

HOW TO MAKE GOOD MUCILAGE.

The best quality of mucilage in the market is made by dissolving clear glue in equal volumes of water and strong vinegar, and adding one-fourth of an equal volume of alcohol, and a small quantity of a solution of alum in water. The action of the vinegar is due to the acetic acid which it contains. This prevents the gelatinizing by cooling; but the same result may be accomplished by adding a small quantity of nitric acid. Some of the preparations offered for sale are mere boiled starch, or flour, mixed with nitric acid to prevent gelatinizing. These preparations are very inferior in quality to that made from glue.

PERSONAL.

Dr. Charles Gowan has been appointed Medical Superintendent of the Toronto Lunatic Asylum, in place of Dr. Joseph Workman, resigned. Dr. Gowan was formerly assistant superintendent of the Worcester (England) Asylum. Dr. Metcalfe of Windsor, has been appointed assistant superintendent in place of Dr. Benjamin Workman, resigned.

Original Communications.

Nature's Power to Heal. By WILLIAM CANNIFF, M.D., M.R.C.S.E., Toronto. Prepared for the Canadian Medical Association.

Mr. President and Gentlemen :

In the paper I now have the honour to present for your consideration, I may not be able to claim much originality. The thoughts and reflections are, in a measure, the faint echo of what has been before now advanced by others. The necessity has been laid upon me of saying something at the present meeting of this Association, upon the subject of Surgery. I can hardly say that it is a report upon the subject, but I wish to declare to you that I did all I could to secure for your prepared appetites something worthy of the occasion. At an early day I wrote to my esteemed friend, Dr. Hingston, reminding him of this particular duty; but he had become Lord Mayor of the great commercial metropolis of the Dominion, and so could not undertake the important work. And I am sure you will allow me here to observe that Montreal, in honouring a distinguished member of the Medical profession, one of her most respected citizens, did itself infinite credit, and is four-fold honoured in the possession of so worthy a head. I also wrote to my equally respected friend, Dr. Grant, who had been appointed, with Dr. Hingston and myself, to report on Surgery. But circumstances made it impossible for him to attend to the matter. Occupying the responsible and honourable position of Medical adviser to the Governor General's family, he could not hesitate to respond to the call, to accompany that esteemed family across the Atlantic; and, if time and brain-work and worth are duly rewarded, Dr. Grant's outgoing, although I have no doubt extremely agreeable, will be followed by more pleasant incomings. So you see that if a proper report on Surgery, worthy of the science and of the Association, is not forthcoming here to-day, it is not because I did not use my best efforts to secure the active services of two of the most prominent surgeons of the Dominion.

With these explanatory remarks I will now venture to present to you a few remarks, somewhat disjointed it may be, upon a subject by no means new, but one of never-ceasing importance. I refer to the subject of *Nature's Power to Heal.*

I trust you will pardon anything I may say which appears like self-assertion or egotism. After one has been in practice a number of years, although he may lose faith in a good many things he was taught to believe as a student, he is likely to become bigoted, so far as his own experience is concerned.

Before proceeding I would call attention to the fact that, upon this continent, neither in the United States nor Canada, is found a distinction between the physician and surgeon. Here and there in cities and larger towns exist one who gives his attention more particularly to one of these branches of the medical science or to midwifery, but mainly a doctor in this country means a physician, surgeon and accoucheur altogether. Although prepared to admit that the distinction, such as exists in Great Britain may be advocated with some good arguments, I must say I think it is fortunate we have not adopted the custom. In a new country, sparsely settled, it is not often that a field in either branches can be found sufficiently large to satisfy the practitioner in any specialty. This, doubtless, is the reason that mostly all medical men in America are general practitioners. There is to my mind a more cogent reason why medicine and surgery should not be severed. So far as surgery is an art, it may occupy a distinct place without detriment, but, when we regard it as a science, and examine the basis upon which it rests, we find one that is common to it and medicine—the physiological and pathological facts which form the ground-work of one constitutes the basis of the other. And in the field of practice, he will fall sadly short who attempts to treat surgical affections without a knowledge of the principles of medicine; while the exclusive physician, who has little or no knowledge of what more particularly belongs to surgery, will often fail to render full justice to his patient. Such being the case, and with the subject I have to treat, I shall not confine myself entirely to what particularly belongs to surgery.

The power of Nature to restore parts both internally and externally in every tissue of the body, is, I fear, not fully appreciated and trusted; is not sufficiently studied, and therefore not understood; as a trustworthy guide in the treatment of disease and injuries, she is too frequently ignored. I must go further and express my opinion that very often Nature is thwarted in her efforts, instead of being humbly followed. It may seem a startling and severe assertion, but, nevertheless, I believe that in the practice of not a few, as much is done to interrupt the work of Nature as to assist—in other words: as many would recover from sickness and injuries, and as speedily, without treatment as with it, in the aggregate. I do not mean to say that no benefit is

derived from the administrations of the doctor, on the contrary, I am sure there is no one so badly qualified by nature and education to practice, who does not sometimes, perhaps often, afford relief to his patients; at the same time I cannot repress the conviction that in many cases the doctor who has successfully treated one case, will with his next patient, by the injudicious use of drugs, or by interference of some kind, arrest, or retard the work of Nature. Do not misunderstand me. I am not here to condemn the profession, but to point out what appears to me to be defects, in order that they may be removed. It is a noble and inspiriting thought that one has saved life, allayed pain, and abbreviated distress, and I would that this feeling should not be marred by the thought that, perhaps, if such and and such a thing had not been done, the patient would have suffered less, or have recovered, whereas, he died. Such unhappy reflections will now and then obtrude themselves in our every-day practice, unless the practitioner is animated by a sublime egotism. However, we are not called upon unnecessarily to write bitter things of ourselves; at the same time it is unquestionably our duty to be as certain as we can that we are not running counter to nature in our course of treatment. Mistakes will, no doubt, occur even with the most efficient and conscientious; but with the constant acquisition of knowledge in relation to our profession, there ought to be commensurate improvement in the treatment of cases, and advantage to the sick. That very much has been gained in the direction I am advocating there can be no doubt; but I urge the plea that Nature should be trusted more than she is. It was one of the first things I learned from my first teacher that, "meddlesome midwifery is bad." Experience has fully established the truthfulness of the statement. But I am just as well convinced that meddlesome surgery is bad, and meddlesome medicine is bad. What is it that has given success so frequently to the Homœopathic physician, who faithfully treated his patients with infinitesimal doses? Was it not due to the fact that Nature was left untrammelled to work her cure, sustained at the same time, by faith operating through the mind upon the nervous system? I have now and again had patients who, having failed to improve under the use of drugs, at once began to mend when discontinued; and I have had medical friends make the same statement. While I write there come to us from England the information that a religious sect, known as "The Peculiar People," and who do not believe at all in medical treatment, have opened an hospital for the sick, into which the disciples of Esculapius shall never enter. Now, I shall not be surprised to learn that the mortality and duration of disease at this institution are no greater than in the best appointed hospitals of London. And there is no doubt these peculiar people, who, although zealously religious, do not seem to be fools, have, by observation, convinced themselves that their prayers accomplish as much as is done by the regularly qualified medical man. From the position I assume the fallacy contained in Professor Tyndall's proposition to test the efficacy of prayer in healing the sick is at once apparent.

The well-known Dr. Todd, in speaking of Erysipelas divided cases into three classes; one class consists of those who will get well without treatment, perhaps I may add, in spite of bad treatment; another class will die, notwithstanding the most judicious treatment; the third-class, which may not be large, is composed of those who will live or die, according as the treatment is proper or improper. So then, so far as the effects of treatment upon life goes, we may take it for granted that the cases are comparatively few where the balance is turned, one way or the other, by any treatment. But the important fact remains that the medical man's duty is not limited to treating extreme cases. It is an important part of his function to allay suffering and prolong life; therefore, it is incumbent upon him to possess that knowledge of nature's laws, which we find exhibited in man's physical system,—that he may be fully equipped for the path he has to tread.

The knowledge requisite is not only to enable him to do what is necessary, but to avoid that which is unnecessary. The medical man is almost daily tempted to do something when he knows that nothing is really required. In fact, it is often necessary to do something to satisfy the patient or his friends. The do-nothing course is rarely satisfactory to the world, with its present limited education respecting the laws which govern life and disease. And it is not unfrequently a question of some importance to the medical man "how not to do it." The administration of bread pills and tinctured water is one of the clumsy ways of solving the question. But, apart from this morbid desire on the part of the public, and the expectations that medicine will be given, does not the doctor sometimes magnify his office by unnecessary service? The result is not only that prescriptions are written generally in a style of

mystery which originated in the dark ages, and which was employed by imposters; but the surgeon proceeds to probe a wound with no possible benefit to the patient; he introduces a suture unnecessarily, to produce an impression, perhaps to gain an extra fee, a fractured limb is manipulated, whereby the limbs, it may be the life is placed in jeopardy. Of course, the patient may not be so willing to pay a proper fee when no medicine is given, or when you bring fragments of a broken bone into position so gently that he fails to detect just when the bone is set. But is it not a duty we owe to science, and to the dignity of our office, to endeavour to educate the public to a proper appreciation of the true function of the medical man. Now, with regard to this point, so far as the physician is concerned, I hold that he should be supurseded in a great measure at least, by the Sanitarian. I believe the time will come when our profession will be most frequently employed to prevent disease, when preventable; not by the administration of drugs, but by the application of those sanitary laws which science reveals. It cannot be expected that disease will be entirely prevented, so that we will have to continue to act as physicians. Certainly, injuries of various kinds will continue to befall man which no surgeon can foresee or prevent.

Many obstacles to the reform I have referred to might be mentioned, one is the strong conservative feeling which causes the profession to retain, with much tenacity, the forms of prescription which originated in ante-civilization times. I have often thought that the use of Latin in writing prescriptions was a pedantic sham. Some of the signs employed are convenient, and words in the abbreviated form can be quickly penned; but this is all that can be said in favour of continuing what is really a relic of barbarism, when an educated few took advantage of the ignorant and credulous mass. But it may be asked what has this to do with *Nature's Power to Heal?* I reply it has much to do with it. If we wish our profession to attain that position which it legitimately should possess, we must discard everything bearing the appearance of mystery or secrecy. Prescriptions must be written in plain language, and if the patient desires to know what you are giving him let him know; and then will follow this important advantage: the druggists will not commit mistakes in their efforts to interpret prescriptions. This emancipation will materially tend to foster a dependence upon Nature, rather than drugs.

Coming to the subject of Surgery, more especially, it is hardly necessary for me to mention the various ways in which are manifested Nature's power to heal —to restore parts. Mostly every medical man is familiar with the writings of Paget and Billroth. These investigators, as well as others, have demonstrated that in all the multiform lesions met with in the human system resulting from injuries and disease—in every tissue of the body, Nature ever stands ready to undertake the work of repair; and if the system be in a healthy state and Nature be not interfered with in her action, the power to restore parts is often striking and marvellous. In a large number of cases, all that the patient requires is *rest*. It is at such times that the meddlesome surgeon may work mischief. Many years ago I read with much care a course of lectures by Mr. Hilton, of London, upon the subject of rest—mechanical rest and physiological rest; and the benefit I thus derived I cannot over-estimate. Rest is, in fact, the principal, the great pre-requisite to enable nature to accomplish her work of healing. Rest of body and mind. Pain, so common an attendant of disease and lesions, indicates a state incompatible with healing. The pain may result from the absence of rest, or it may be Nature's cry for assistance: and, it is a part of the surgeon's duty to respond to this cry. He should distinguish between these two causes of pain, and endeavor to remove them. But it is his first duty to try to prevent pain; and he should see to it that he never is the cause of pain. The surgeon's art will often furnish to nature essential aid whereby she may more promptly and efficiently accomplish her task. Failing to receive any assistance from Art we often find Nature, nothing daunted, resorting to other means to effect a cure—taking further and more complicated steps, often marvellous and beautiful. For the sake of illustration we will take a broken bone, a simple fracture. Union between the fragments would rapidly take place if the limb were kept in a state of rest; but in consequence of neglect of the surgeon, or wilfulness of the patient, or some other cause, motion is permitted. The result is the arrest of the healing process—of the ossific union of the pieces. The motion has caused pain, the pain has led to congestion, congestion produces fibrinous effusion; and this results in the formation of more extensive provisional callus, or "en-sheathing." By this means the ends of the bones are retained in a fixed position, rest is secured; and after this—after these successive and wise steps by Nature, the work of repair between the fragments will proceed. Thus we learn that the designation of Nature's Splints to the ensheathing callus is well

applied. But in a simple fracture Nature should not be called upon to form this splint; Art should apply it, and thus enable Nature to immediately undertake the work of repair. The resources of Nature with regard to healing are wonderful. The observant surgeon and physician will notice them in many ways. The adhesions which form between the layers of peritoneum may justly be regarded as an untoward event, so far as the future comfort and efficiency of the patient are concerned; still are we not to look upon such adhesions as a method of Nature to secure rest of the intestinal tract, and thus remove the cause of continued inflammation, whatever may have been the primary cause of the disease. And when the pleuræ costalis and pulmonalis are glued together by inflammatory lymph, and the pericardium becomes adherent to the heart—although in many respects disastrous—must we not, nevertheless, recognize the only way (and being the only one a wise way) by which a degree of rest is obtained for organs whose functions render absolute repose an impossibility. Continued inflammatory action would result in death, but it is arrested by Nature in the way stated, and life is preserved although crippled. I need hardly stay to point out a fact so apparent that in many cases a timely course of medical treatment would have rendered this work of nature unnecessary; and life, not only would have been preserved, but the body retained in its original perfect condition. One more illustration is found in the process of cure by Nature in aneurisms, and another in the several steps whereby a divided artery is effectually closed.

The powers of Nature are often manifested not merely to preserve life and function, but where function has been destroyed, or impaired, to repair and restore. The power to restore lost parts is limited, but the power to recover function is far greater than generally supposed. Even while the disease is in progress, we often find efforts put forth to limit the loss of, or preserve function. Take, for instance, disease of the joint. During the course of the disease, while active destruction of tissue is taking place in the joint, Nature will be throwing out new material out of which to form a new structure, which will in some degree become a sub-titute for that destroyed. Again, in case of excision of a joint, what do we see taking place? If the two bones are retained for a sufficient length of time in a state of immobility, firm union follows; and this, in many cases, is all that can be expected. But in some cases Nature attains a far higher result. A stiff limb is better than an artificial one, but to have the limb not only saved but its functions preserved is an achievement of Nature, often witnessed by the surgeon. This higher result after resection, is perhaps more common than is supposed, and I have seen cases where it took place in spite of the effort of the surgeon to obtain anchylosis. Again, while it would be commonplace to refer to the fact as often witnessed, that the surfaces of an incised wound, when retained in contact in a state of rest, will rapidly and enduringly unite; it may not be so destitute of interest to notice a subsequent event. When a wound has healed, which may be in a few days time, the part is restored to its ordinary usefulness. This might be deemed sufficient; but Nature will do more than this. Life has been preserved, the member has been preserved, the functions have been perfectly preserved, what more? Unsightliness will next engage the attention of Nature. Beauty and harmony of symmetry must likewise be restored. If the part be hidden by apparel, of course this is a matter of no importance, but if exposed, especially if about the face, then the importance may be of considerable magnitude. Nothing, in fact, to some minds, can be more distressing than to have an unseemly scar upon the face, seen by all. Now, towards the removal of cicatrices the surgeon can do little, or nothing, but Nature is not so impotent. Surely, although slowly, the scar wears away, and in time, may disappear: nay, often does. But whether a total removal takes place or not, the effort of Nature to reach that end, only ceases with life itself, In this continued endeavour of Nature, the surgeon fortunately can do nothing to retard the work, short of violence; but he may, and often does more to prevent primary union of wounds than he does to assist.

It is, however, in severely crushed, or torn wounds that an additional and exceedingly wise course is pursued by Nature, for the purpose of saving and restoring tissue; around the wound is a certain portion of tissue more or less injured, some of it will, or may recover; while some of it must die. Where the boundary line is to be drawn Nature must decide. It is she who will examine the molecular parts, and determine which can, and which cannot be restored, which portion shall be resored to vitality, and again enter upon the active duties of molecular life; and which shall perish and be cast off. And, as Nature will in time amputate a whole limb in a palpable manner, so will she, although impalpably, sequestrate the doomed tissue around the wound and at the same time furnish a vehicle to carry off the detritus. The out-flowing

serum or liquor sanguinus often constitutes a channel by which the offal, so to speak, is washed away, which if allowed to remain, would become a putrifying substance, to poison adjacent tissue, yet suffering from injury. After the work of sequestration has been completed, and in this way disposed of, nothing may remain but for Nature to close up the wound by granulation or second intention. But, alas, these wise efforts of Nature are often rudely interfered with, and in her first efforts she is entirely thwarted. In various ways this is sometimes done by the surgeon. I will not speak of the methods which were followed, in the past, a period of which we sometimes speak with an inconsiderate sneer, as if no unscientific treatment was ever pursued in the present day. The time I may reasonably expect to occupy will allow me only time to speak of a modern course of practice which, in the minds of some, appears to be equal to the old treatment of wounds by sympathy (sympathetical cure) where applications were made not to the wound but to the implement which inflicted the wound. Under this treatment it was found that wounds healed with wonderful rapidity, they being left in fact to the kindly operations of Nature. Meanwhile the surgeon supposed it was the unguent applied to the weapon. Such folly would not be tolerated now-a-days. However, we find among modern surgeons those who use and recommend carbolic paste and other agents impregnated with substances, having long compound names, to the wounds, or who employ some lotion or spray which has to be applied according to a certain formula, so intricate, that if success does not attend the treatment, it can easily be accounted for on the ground that the directions were not faithfully carried out. These applications possess some wonderful power to destroy supposed low forms of animal life, which (like the ærial spirits with which the Rosicrusians peopled the air) float about in every breeze waiting to flock into any solution of continuity upon the human body, upon mischief bent—to bewitch, as it were, the ultimate particles of the living tissue, so that instead of recovering themselves, and closing the breach in the surface, they perform fantastic tricks before the high priest, Nature, and thus turn the healing process into a process of death and decomposition. While there is no doubt the air is inhabited by myriads of low forms of life, and very likely these very often affect the human system by entering the blood through the lungs, it is a far-fetched theory that they in any way affect living tissue. Dead animal matter forms the most fruitful abode for them to propagate and grow; but that has nothing to do with the cause of that death.

But I fancy I hear some earnest disciple of Lister exclaim, how do you account for the result? I am tempted to reply, as the natives of a certain country are said sometimes to do, by asking another question. If you do not believe in homœopathy how do you account for the success, which their statistics prove, attends the treatment of disease by their method? but I will not: I do not like, being a Canadian, to follow the teachings of any one simply because he belongs to a certain country. It was said of those who gained the most renown for curing wounds by the "sympathetical method" that they never undertook to heal *gunshot* wounds. Their operations were judiciously confined to simple incised wounds. Now I do not desire to convey the impression that those who practice according to Lister's theory with such success, either falsify the accounts given, or confine their treatment to cases of incised wounds. I think, certainly, that there might be found in connection with their practice something of the fallacy contained in the often quoted phrase *post hoc ergo propter hoc*. I am not going to deny the efficacy of carbolic acid and similar disinfecting agents. These it is well known, have great power to arrest, not the death of tissue, but its decomposition. Now what is it that favours decomposition of dead animal matter in any case? A dead body, the offal from the slaughter house, any animal tissue, deprived of life, is not at once poisonous; it is when it begins to putrify that it becomes noxious. And are we to believe that no such decomposition can take place without the aid of air germs? and yet we must entertain this view if we accept the doctrine of Lister that suppuration, in connection with wounds, is due to the active agency of these invisible degraded forms of life.

In connection with bruised wounds we often have rapid death of organic elements. If these be pent up within the wound, they are placed in the most favourable condition for speedy decomposition and putrifaction. Having putrified, and remaining pent up, we have following all the disastrous circumstances of septic poisoning. Now, it is obvious to all that this could have been prevented, if one of two things had been done,—either a free escape of the fluid within the wound secured, or by the introduction of some agent, possessing the power to arrest decomposition. Of course the antiseptics possess the power to do this. But it will be per-

haps urged that extensive experience, by different persons, in different parts of the world, has proved that unusual success attends the treatment of wounds by the application of certain pastes or putties; and of bandages applied in a certain way with proper precaution, and caution.

Allow this to be granted, but it does not follow that it was by excluding the air, or germs in the air, from the wound. The fact is the course of treatment laid down according to Lister's plan all tends to secure those conditions, so essential for the due operations of Nature's laws. We have cleanliness first and last; we have unusual attention by assistants to watch for, and remove every untoward circumstance; we have rest, so necessary, of the parts by the mechanical presure of the paste and bandages; also, by the same means, pressure is made whereby effusion is prevented. In fact the parts are pressed together and retained in a state of *rest*. Congestion is thus limited, and the injured tissue placed in the most favorable condition for restoration to vitality. Yes, success does frequently attend the antiseptic treatment; but it is due to the circumstances attending that treatment. But the question remains, whether the same end could not be reached by far less complicated means and which are far less likely to fail, and, in failing lead to disaster. It is submitted that the antiseptic treatment proves beneficial by preventing the existence of, or of destroying the poisonous properties of putrifying organic matter arising from the body with which air germs have nothing to do. It is also submitted that this can be accomplished by means far more certain, far less troublesome, and will produce results far more satisfactory. It would occupy too much time and exceed the bounds of the object proposed in this paper, to point out at length the means to accomplish this. I cannot, however, omit speaking of the value of *pressure* as well as *position*. The drainage tube will often carry out fluid from the bottom of the wound but position of the body generally, and particularly of the part, will effect far more. Pressure generally by bandage is a most effective agency in squeezing out the fluid which is filling the spongy crushed tissue, so that healthy circulation of nutrient and reparative material may take place. While the softened tissue is filled with the products of passive congestion, of course the destruction of injured tissue is greater than when the position of the wound or other circumstances prevent a free drainage. It has been recommended with much sound argument, that the boggy tissue should be as it were drained by means of the knife.

Judiciously-made incisions will allow the noxious fluid to drain off and thus all the benefit of antiseptics will be obtained. Failing, however, by any means to effect necessary drainage, disinfectants should be used to prevent or destroy putrifying matter.

I will not pursue this subject further. My object, whether gained or not, has been to show that Nature possesses ability to heal, unaided, even the worst forms of wounds; and that while Art can render assistance, that assistance should be of a simple character, based on ordinary principles of natural philosophy, and guided by common sense, not on any visionary theory. In concluding my remarks I wish to speak of what I regard as the great agent for Repair. Some years ago in a publication, I advanced the theory that the principal purpose the fibrine of the blood served in the physical economy, was to heal tissue. This theory has been accepted by a number of writers. Limited in quantity, (a late writer says it is not present at all in the circulating blood in health) we find that when it is required, it rapidly increases in quantity and efficiency. Possessing limited vitality, it has yet sufficient power of organization to form a temporary, a pseudo tissue until the natural is reformed.

Incapable of perpetuating itself after it has become organized, it acts as a sort of scaffolding upon which the natural tissue is gradually built. Being used only for a temporary purpose does not lessen its value, for how could a building be erected without accessory means. Doubtless it is derived from the nutrient elements of the blood, but those elements have passed the period of maturity. They were at one time qualified to enter into the formation of natural tissue, but, not being used, they passed on to decline. Still, although with lessened vitality, they were well adapted to serve an important purpose in case of need, like refuse timber, which has been rejected in the construction of a building, it is quite suitable for the scaffolding. Such is fibrine.

President's Address Delivered at the Eighth Annual Meeting of the Canadian Medical Association, held in Halifax, Nova Scotia, the 4th, 5th and 6th August, 1875. By LE BARON BOTSFORD, M.D., L.R.C.S., EDIN., ST. JOHN, N.B.

GENTLEMEN,—In the order of business it is now my duty to address you on this our eighth anniversary. With one exception the Associa-

tion has held its meetings in the Provinces of Quebec and Ontario. On this occasion we have the pleasure of assembling in one of the oldest cities of the Maritime Provinces; which with its noble harbour adorns the Atlantic coast of the Dominion. Perhaps the day is not distant when a session of this same Association will be held on that other shore where the waters of the Pacific wash its Western boundary.

Those among us whose heads are nearing their resting place may not see this event, much less the gatherings of our profession in those intermediate regions which must one day become the home of millions; but you who have commenced the battle of life, when the passing years will have left their impress, and you take your stand between the present and the future, will witness vast changes, and in the meetings of the "Canadian Medical Association" will find yourselves surrounded with brethren, coming from the different quarters of the Dominion—from the Pacific coast with its genial winters,—from the valleys of the Saskatchewan and Assiniboine—from the prairies of Manitoba, from the old homestead Provinces of Ontario and Quebec, from those Provinces by the sea, and *you* will reap the benefits which such meetings are so well calculated to confer, for they will embrace the experience of the profession under varying climates and under many conditions. And gentlemen we must not be discouraged by seeming failures. These are incidental to the commencement of all such institutions. The time will come when full success will crown our efforts, and our Association will be commensurate with our nation. We must have our evening as well as morning to constitute a perfect day. We cannot measure the result by present benefits. They will assume proportions which will surpass the anticipations of the most ardent. For no matter how extensive the experience of the individual practitioner, how close his observation, how powerful his mental capacity, he will, if confined to a locality, become cramped by its limits, and it may be his professional growth checked by an incrustation of routine so apt to settle upon us all. Throw the same person into contact with genial minds and he will enter upon new fields of thought, and receive as well as impart new suggestions, and that in proportion to the extent of country which may be represented. This has been the case in other departments of culture, and will prove true when professional brethren meet. for each member from his contact with disease under varying circumstances will bring to light some new experience and at the same time will carry away that detailed by others, each having some special opportunities in the wider field of observation. whilst the most cultivated will be benefitted even in their own special direction by the critical shrewdness of those who may be their inferiors in their specialty, yet their equals if not their superiors in other departments of the profession.

Another result will be the modifying influence which will be exercised on the extreme of the profession. The too hasty will be held in check by the naturally conservative, whilst the latter will be stimulated to new life by the impulsive energies of the former. And all will be stirred up from a sluggish routine which dislikes to have its calm disturbed, or drifts lazily away with the tide of opinion and accepts the dicta of teachers, rather than enter upon that strict investigation and careful line of thought so necessary to all progress.

By such collisions of mind may we not hope that there will arise some check to fashion. which has lessened and still lessens the influence of the profession. No one can deny the prevalence of fashion. Not merely in the past, when dogmatism prevailed in proportion to existing ignorance, but even now in our times. The evil is ever ready to come to the surface. Those now living will recollect how Broussais swayed the schools and how his facts and theories were accepted or rejected. How every departure from a healthy condition was regarded as the result of asthenic state, and how, as a matter of course, bleeding and antiphlogistics were the great agencies for dislodging the enemy. Then again, diseases were ascribed to the failure of vital powers and bloodletting was so little used that it was lately treated by one of the most eminent in the profession as a "lost art." "Building up" was a necessary consequence; and then stimulants advocated as the best means to arrest the flagging powers of life to such an extent that (with many practitioners) no condition would seem to contra-indicate their use. And again the pendulum swings, and already are there some who will not allow that

stimulants of an alcoholic character are admissible in any case.

At one time mercury was the great specific, and was pushed to such an extent that men felt the remedy to be worse than the disease: and from the ignorance which led to its abuse there came a rebound, and by some (wisely or otherwise) it is repudiated and cast on one side as a vicious poison. A great change has come over the profession as regards cholera. It is not many years since its contagious or communicable character was generally denied. Now it is as generally admitted. Thus it is. Theories rise and fall; and medicines, which belonged to observed facts we might suppose to be better grounded, pass through the same phase; to-day used, and commended as efficacious, to-morrow neglected or condemned.

No doubt a few active or powerful minds lead to such results. By their force they set the new system in motion, and the mass follow; and the followers of a sect are always more inclined than the founders to push systematic opinions to the most absurd extreme; "and if we are to believe the recorded results of therapeutic research, conducted under complicated conditions, we shall be obliged to admit that the same diseases have equally well been cured by the interposition of the gods—by witchery and priestcraft—by the most sanguinary and antiphlogistic and by the most mild and expectant treatment; by remedies founded on the rational pathology of the disease; by the administration of infinitesimal parts of nothing; by peppermint water and bread pills. Each and all of those diverse plans of treatment have had their advocates, who bring forward in their favor accumulated masses of evidence."

There can be no effect without a cause. But the difficulty is to determine, amid the complicated actions of the human body, what is the cause. And yet there must be some one or other which shall be efficient in the varying systems of treatment. For if similar results are attained, are we not compelled to admit that nature asserts *her* supremacy, and, in spite of the errors perpetrated, rises superior to the depressing agencies arrayed against her? Men become the subject of disease, and under every system throw off the morbid state and resume a healthy condition. Many a nostrum has been used and proved apparently successful in the hands of the regular practitioner, and frequently the thorough empiric can parade the cures which have attended his panacea. And both the regular and the empiric have succeeded, not because their remedies were beneficial in themselves (in many cases they may have been injurious) but independently of the means used. We have therefore, to look for a reason why this should be. Why judicious means shall fail in the hands of one man, and why inert, or it may be injudicious medication, shall be attended with favourable results in the hands of another. It is a common experience to witness the eventual failure of the theories, or of the medicines which have been initiated by strong and ardent minds because they are unphilosophically based, yet the success which has attended theories demonstrates the necessity of looking for some principle beyond mere physical agencies, some underlying cause for the success which follows the same or varying treatment. It may be urged that the "vis medicatrix" explains the difficulty; but that power has been present in the same case in which the philosophical attendant has failed, and the inert globule has afterward succeeded. We are there compelled in *certain cases* to look further for the efficient cause; one which aids the ignorant empiric as much as it does the regular practitioner—one which stimulates the force of the system to renewed activity and to a healthy termination, one which is more than a natural tendency to a sound state—one which exercises a curative power when called into play, and residing in the mind and proceeding from it aids the physician, who enlists in his favor a strong anticipation more potent in certain temperaments than well adapted drugs. This is no new idea. It is one we all recognize, yet one we continually overlook. We are so engaged in the contest with disease—so bent upon effecting results by the power of medicine—that we are practical sceptics of the enormous force which the mind exercises not only over the functions of the organs, but over the structure of the organs and tissues themselves.

Brown Sequard, who has devoted much attention to the nervous system, has thus expressed himself, "Power of the mind over the body is much greater than most of you imagine; indeed, I do not think that any one among you, (he was addressing a public audience) however

exalted may be his idea of the strength and variety of that power, has an adequate conception of its magnitude within the bounds which I will mention." Again he remarks, "The cure of any illness which does not consist in a disorganization of the tissues can be accomplished when the person thinks it can be done. If we physicians, who treat patients every day, had the power to make them believe that they are to be cured, we certainly would obtain less fees than we do. There is no doubt at all that if we could give to patients the idea that they are to be cured, they would often be cured, especially if we could name the time for it, which is a great element in our success." I have succeeded in this way, and I may say that I succeed more now than formerly, because I have the faith that I can in giving faith obtain a cure."

Such are the opinions and experience of a close philosophical observer, one who has devoted great ability and ceaseless energy to the solution of nervous phenomena.

This is an aspect of our profession which demands our consideration; for though it has been well determined that the mind is often seriously affected by the condition of the body, it is questionable whether the body is not as much influenced by the mind, and that changes may thus be brought about even in the tissues themselves. If this is so, it will give one solution why recoveries occur under the same or varying systems of treatment, when the *vis medicatrix* cannot be regarded as the cause. This is a class of cases which gives efficacy to, and confirms each peculiar system of treatment in the estimation of its followers; and it will be futile to reason with any one as to the merits of his system, if he is *conscious* that he has been relieved when using it. We can only do so by going behind the system and showing that there is a cause which is operative though not generally acknowledged; a *cause* capable of producing results of a wondrous character, and when recognised sufficient to reconcile to sound philosophy what now appears a mass of contradictions.

I do not say that this class of persons on whom the mind is capable of producing such results is very numerous; but it is numerous enough to make the results a disturbing element in our medical progress, indeed to such an extent as seriously to affect the laity in their belief, and the profession itself in its certainty.

There are sufficient reasons to make us suspect that under anomalous conditions not only can the functions of organs be affected, as was demonstrated by Mr. Braid, of Manchester, but that changes in the tissues may be the result of disturbance in the nervous force; that this latter can assume various phases, being transmuted into heat or electricity, or manifesting itself in chemical power or motion. Be this as it may, Brown Sequard gives one among many instances in which nerve force caused physical changes of a remarkable character. He says: "A mother was looking at her child who was standing at a window with its fingers on the border of the window under the lifted sash. She saw the sash come down with great force and crush the fingers of the poor child. The mother remained unable to move, feeling immediately a pain in the three fingers at the very place where the child had been injured. The fingers swelled, an effusion of blood took place, ulceration followed, and she was a long time being cured." How this physical change was brought about, by what modifying power, it is difficult to determine. We cannot admit that the imagination *per se* could have been the efficient agent however important the role it played in the occurrence. But come from what condition of the mind, or tendencies of the nervous system it might, this, and phenomena similar in character exist as facts, and it will be wise if the profession give them due attention. They may be very few among the many, yet the principle involved in their production may supply a rationale for the instances which are adduced by empirics as proofs of the efficacy of their nostrums, and prevent the regular physician from being himself misled, or misleading others. A decided benefit will thus be gained. We will wrest from the ignorant their apparent success. We will make amenable to the laws of philosophical induction what has been vague and indefinite. For however subtle the principles which are operative, they will be mastered by a rigid system of investigation, and as soon as the phenomena become tangible they will not long escape the penetrating power of the medical mind.

Facts, no matter how incompatible with our previous experience and theories, will have to

be faithfully registered, and when a sufficient number has been accumulated, then some one will rise to the emergency, and establish the law of their production.

Medical science has always required patient research, and never more so than at the present time; its foundations are based upon the laws of being, and these laws are bound up with, and modify every change in the organism. And as there is no domain of nature but what may throw light upon our path, the amount of knowledge requisite to become a well grounded member of the profession will steadily increase until it touches the inconceivable. And if the scientists who can stand on the firm earth, and have to deal with matter in its more simple combinations, have still before them vexed problems and long years of patient research, how much greater must be the endurance of the physician who has to determine his certainties amid the shifting sands of life. where the varying phases are all but infinite and the organic forces and mental powers assume protean shapes.

In May Dr. Steves and I went to Louisville to attend the meeting of the American Medical Association. We were most kindly received, and they have responded by appointing six of their number to be present at our session. There is evidence that the meetings of their Association are producing a very beneficial result upon the whole profession in that country; not only is the tone and standing of the profession raised by the mixing of the leaders and veterans with the general body, but its culture and intellectual attainments force upon the public a truer estimate of its importance. A late President, Dr. J. M. Toner, says: "It must be apparent to all that the concentration of medical thought, and the scientific aspirations of the profession of the country, as expressed through the Central Association, are such that by its unity of action it exercises more influence now over the public and profession than ever before; or than would be possible without such combined association. This is particularly noticeable in States in which there has been recent legislation affecting the profession and public health." Again "It is a source of sincere congratulation that our medical educational institutions are rapidly enlarging and perfecting their curriculums; and becoming more thorough and efficient in teaching the science of medicine." Too much importance cannot be attached to the attainments required of the members of our profession, for, "it is our distinction and hope that to secure its largest practical amelioration, society must look mainly to *us*—our range of duty being the whole organization of man in health and disease—psychically as well as physically we alone offer that wider field of new action which an advanced society now requires. All that gives happiness, assuages pain, prevents disease, lengthens life, betters the individual or improves the race—these, the great concerns of living humanity, and carrying with them the principal morals of society, belong to our care. On them we are the only teachers that can speak with authority, or that, by and by, will be listened to with conviction. We alone can make theory on them, give way to demonstration, speculation to ascertained fact, doubt to certitude; and outside our pale there is no teaching nor knowledge that is secular beyond what forms a fraudulent empiricism on one side, and a perilous credulity on the other."—*Medical Times.*

There is a subject which I would submit to the Association for its consideration, and that is, the want of a registration of births, deaths and marriages. In some of the Provinces it does not exist, and it will be for you to decide whether a memorial from this Association to the general government will tend to hasten that most to be desired action of the Dominion Legislature.

Surgical Cleanliness. By EDWARD FARRELL, M.D., Professor of Surgery, Halifax Medical College, Halifax, Nova Scotia. Read before the Canadian Medical Association, August 7, 1875.

A question which has given rise to much discussion of late years; the dressing of wounds, especially the wounds resulting from surgical operation, is still of the greatest importance to the practical surgeon.

In this very short paper which is meant more to elicit the opinion of the members of this Association than to produce an exhaustive review of this subject, I will not attempt an enumeration of the various causes of fatality after surgical operation, but I shall get at once into the subject of the paper, and divide

the causes of death after surgical operation into unavoidable and avoidable or preventable causes.

Among the first may be mentioned the age, sex and constitution of the patient, the severity of the disease or injury for which the operation is demanded, or the severity of the operation itself, these always influence the result, and are taken into consideration by both the surgeon and patient in estimating the chances of success. Besides these, we have the various common but often fatal complications of wounds, the much dreaded septic diseases, which destroy life so often after surgical operation, in patients of all ages and of every variety of constitution.

Is it possible to prevent these fatal complications of wounds? Can we reach the cause of erysipelas, of pyemia, of septicœmia and diseases of that class? Is it within the power of the surgeon to find the influences that give birth to these diseases, nourish and propagate them; and, finding these influences, is it easy to remove or destroy them and render them powerless to do injury? To these questions the operating surgeon of to-day demands an answer.

In the face of the fact that the operators in large cities are men of acknowledged ability and skill, and that almost all operations are now performed without pain, and many without loss of blood, reducing the shock to the nervous system and to the circulation to a minimum, we must acknowledge that the death-rate after surgical operation is too large.

I am firmly of opinion that the removal of these diseases, is to a great extent, within the reach of the surgeon, and that we can reduce the death-rate after surgical operations.

In the great majority of cases I believe the cause, the real and active cause of pyemia, septicœmia, erysipelas and diseases of that class to be *dirt*—dirt in in some form or other, dirt brought sometimes in one way, sometimes in many ways in contact with open wounds. I include under this common term all noxious vapors, all germs, all bad air, all floating particles of dead and decaying matter from whatever source they may be derived. It may soon be discovered in what particular constituent of various impurities the cause of septic disease reside, and it may soon be found out what particular form of noxious matter gives rise to each form of septic disease; but it is enough for the practical surgeon to know that the term *dirt* includes every form of impure matter, and that cleanliness is the sovereign remedy. In order to apply the principles of cleanliness in the treatment of open wounds, let us see for a moment the number of ways in which noxious matter may be brought in contact with them. 1st. throught the air of sick room or hospital ward. 2nd. Throught the outer air with which the sick room is ventilated. 3rd. By the bed and bedding. 4th. By the bandages, sponges, towels and cloths used in dressing. 5th. By the instruments used by the surgeon or dresser. 6th. By the hands and clothes of the surgeon, dresser or nurse.

When we know that septic diseases may be derived from any one of these sources; that noxious matter may be brought in contact with wounds through so many channels of impurity; that these sources of disease are within our reach and that each of them can be removed by clearlines; is it not proven that Septic diseases may be, to a great extent, prevented, and that the death-rate, after operation can be reduced, when we learn what absolute cleanliness means?

Is it not plain that the greatest attention to the principles of cleanliness, and the greatest care in their application to the dressing and treatment of wounds are the surgical wants of to-day? I believe that cleanliness is a certain preventive of septic disease, but its full value will not be known until the profession learn in how many important particulars the principle of absolute cleanliness must receive attention.

The cleanest bed, the freshest sheets and the newest sponges are of little avail, if the walls and floor of the sick-room or hospital ward are loaded with impurities; on the other hand, the purest air in a canvass tent in an open field is of no benefit if the filthy products of disorganizing tissue and decomposition are hidden away in sponges and cloths, used in dressing. While on this subject we must all acknowledge how much we owe to Professor Lister, for his labor in the domain of the anti-septic treatment of wounds, which has set the profession thinking and acting in the right direction. When we read in his published papers of the minuteness with which Lister carries out his anti-septic treatment, and the great care with which he attends to every detail in dressing, we cannot but believe that much of his success is due to the cleanliness which such care in dressing necessitates. I believe we shall soon find that cleanliness is our chief anti-septic, and that carbolic acid and other anti-septics are but aids to absolute cleanliness.

To go beyond the domain of surgery to general hygiene, I believe that in relation to the national health, the health of the community, the family and the individual, we have yet to learn how to be absolutely clean.

Progress of Medical Science.

THE VIENNA TREATMENT OF UTERINE HEMORRHAGE.

Dr. Carl V. Rokitansky, Jr., may fairly be regarded as a representative of the German, or at least of the Vienna, school of gynæcology. If we examine therefore, his most recent utterances on the subject, * we may expect to get a reasonable idea of what advances our German brethren are making in the treatment of this class of affections, and wherein their methods differ from our own.

Two indications for treatment in general are pointed out by Dr. Rokitansky: first, to stop the excessive hemorrhage of the moment; second, to prevent its return. The general treatment to fulfil these indications must consist in the exhibition of repressive medicaments and in the administration of a proper regimen, while the local therapeutics should be directed towards a pharmaceutic effect upon the vaginal or uterine mucous membrane on the one hand and against the exciting causes of bleeding in the uterus on the other.

One of the most important points in the treatment of uterine hemorrhage is rest,—rest in the horizontal position, with raised hips, the coverings not too warm, no movement, not even in emptying the bladder or rectum. All excitement is to be avoided; the food and drink are to be of the simplest character: roast meat and ice-cold soda-water are the best nourishment. The chamber should be kept at an even temperature and supplied with plenty of fresh air. Everything which can cause congestion of the pelvic organs is to be avoided.

In what is called active uterine hemorrhage, particularly metritis hæmorrhagica, cold in all forms is to be avoided, because, while its transitory application tends to cause congestion, its continuous employment is not to be thought of. The application of frequently-changed cold compresses to the abdomen is, however, to be recommended. In these cases the plentiful application of leeches to the lower portion of the abdomen, or even to the vagina itself just before the menstrual period, is often extremely effective. In light cases these means, combined with mild laxatives and tonics, will place the patient in an improved position; and these precautions should be taken by all women liable to hemorrhage at the menstrual period.

In menorrhagia, which is simply the expression of general debility, marked improvement follows the use of tonics, and particular preparations of iron. When the loss of blood is not due to uterine disease, improvement of the skin's action, strengthening of the general health, and regulation of the bowels aid greatly in the cure. A systematic course of hydrotherapeutics is often of great benefit in these cases. In all severe cases of profuse hemorrhage, which tend rapidly to anæmia, it is indispensable, during the intervals, to stimulate the strength of the patient to the utmost degree possible.

In what is called passive hemorrhage, which is by far the most usual form of profuse menstruation, and which, by lasting weeks, or even months, brings the patient almost to dissolution, cold may be used with propriety. This means, however, frequently fails, and the physician is constrained to employ pharmaceutical or occasionally mechanical applications to the uterine mucous membrane. The medicaments used for this purpose are astringents, or more usually caustics. These are used in the solid or the fluid state. The use of powders has been of late almost entirely given up. Of the various medicaments, none can replace nitrate of silver. The others are usually tardy in their action, and often produce untoward symptoms (as the uterine colic brought on by the mixture of alum and sulphate of copper).

Whether or not the speculum is used in making these applications, their use should always be preceded by examination with the uterine sound, in order to ascertain as exactly as possible the situation, the condition, and the irritability of the uterus.

Dr. Rokitansky recommends the use of the lunar caustic in considerable quantity: if a small piece is used it is wasted in coagulating the blood, and does not reach the mucous membrane itself. He never uses the caustic until the cervix has been dilated. Slight pain is caused by its use, which usually lasts only a few minutes, occasionally an hour or so. Nausea, and even vomiting, may occur. Very exceptionally the pain may last a day or so, or give rise to feverishness. Dr. R. has only in a single case observed the supervention of dangerous symptoms. One precaution should be observed, particularly in walking cases,—that is, not to cauterize too energetically the first time. The irritability of the uterus should first be tried, and if there is a tendency to uterine colic it should gradually be accustomed to the application.

As to the method of applying the caustic: after the cervix is dilated sufficiently, and the uterine axis brought as nearly into a normal position as possible, a stick of caustic, perhaps an inch long, is introduced by a sidewise motion, either by means of forceps or on the end of a quill from which, after the caustic is placed in position, the latter is broken off. The introduction must be rapid, or the inner cervix may close before the caustic is completely introduced.

A cylindrical speculum of hard rubber is preferred by Dr. Rokitansky, who advises also that no effort be made at forcing it into position. If, for any reason, this cannot be employed, a "porte-caustique," or "uterus pistole," may be used. In most cases cauterization one, two, three, or four times every second, third, or fourth day will control the hemorrhage. Relapse may be prevented by the use of extract of ergot. Digitalis, tincture of cannabis indica, rue, savin etc, are nearly useless.

Two methods of cauterization with fluids may be used: either cotton-wool soaked in the medicament and introduced by any of the ordinary instruments through a rubber speculum, or intra-uterine injection. The latter method is highly praised by many authors, who, at the same time, ward against the effects which may easily follow. The best guarantee against such

* "Ueber Gebarmutterblutungen und deren Behandlung," *Wiener Klinik*, I Jahr, 4 Heft, April, 1875.

ejects is the continuous patency of the entire cervical canal, and this can best be obtained by previous dilatation with sponge tents or laminaria. This of course allows free exit to the injected fluids, and prevents the danger of their being forced into the Fallopian tubes. In addition to this precaution, it is necessary to inject no more than three, four, or at most six drops at any one time, and to inject only very slowly, and drop by drop. By this means the danger is reduced to a minimum.

These injections, as well as any kind of cauterization of the uterus, are to be avoided only when there are inflammatory processes in the uterus or in its immediate neighborhood. Version or flexions of the uterus are not to be regarded as contraindications, but call for the greatest care. Among medicaments, neutral liquor ferri sesquichlor, and tincture of iodine are the best.

When the porte-caustique is used, the patient should lie on her back, with the hips elevated. In making the application by other means, the position may be any of those usually taken. The vagina should be protected by a tampon of cotton-wool slightly inpregnated with glycerin.

Recently injections of hot water have been recommended in post-partum hemorrhage by Dr. Windelband, but these have not yet been fairly tried.

Among the mechanical means of arresting hemorrhage the sponge tent is the most prominent. For instance, if the usual means of controlling uterine hemorrhage fail and a polypus is suspected, the first thing to do is to dilate the cervix and make an examination. Occasionally the use of the tent a single time will in itself put an end to the bleeding, and if the pressure is directly upon some excrescence, this may disappear, removing at once the hemorrhage and its exciting cause.

Dr. Rokitansky only uses the sponge tent in cases of extreme necessity, and never leaves it longer than six or at most eight, hours in position.

As to tamponing the vagina with cotton, charpie, etc., impregnated with liq. ferri sesquichlor, this procedure rarely has any lasting effect: and if these tampons are left too long in position, infection, or at least local irritation, may result. Colpeurynters filled with ice-water are better; but where the physician is suddenly confronted with immediately threatening hemorrhage, tamponing as above may be an absolute necessity.

In cases of uterine fibroid when removal cannot be performed, dilatation, of the cervix with injection of tinct. iodinii may prove serviceable.

Finally, the hypodermic injection of ergotin is very useful when the hemorrhage proceeds from uterine fibroid.

When the cause of hemorrhage is to be traced to polypoid growths, these must be removed, if they can be reached by instruments. When they are not attainable injections of ergotin and the cold douche may be used. Dilatation of the cervix by sponge tent is not to be resorted to unless the strongest necessity exists. Cancerous growths are to be removed by the galvano-cautery, the sharp spoon, or the actual cautery, followed, when the eschar falls, by Wynn William's solution (one part bromine to five parts alcohol). When cancerous nodules still remain after this last operation, the bromide solution may be injected directly into the parenchyma of these tumors. —*Philadelphia Medical Times.*

COOL BATHING IN THE TREATMENT OF INFLAMMATORY BOWEL AFFECTIONS DURING THE SUMMER

To The Editor of the Philadelphia Medical Times:

Dear sir,—At our meeting in Louisville I promised to give you an account of my treatment, by cold bathing, of children in the febrile forms of diarrhœa during our summer seasons.

It is only barely necessary to call attention to the difference between cholera infantum and the exhaustive form of infantile diarrhœa comprehended under the common name of "summer complaint."

In the first we have those profuse discharges of serous matter from stomach and bowels, bringing on a collapse as rapidly and fatally as a true Asiatic cholera; but the latter is slower in its progress and always connected with fever due to a congestive and an inflammatory process in the intestinal canal, and is very properly designated entero-colitis. This is the affection commonly seen, while the former is comparatively rare.

We know very well that in many of the ordinary affections (summer complaints) the correction of the secretions of the bowels and a change of location to the pure fresh air of the country will bring about a rapid restoration; but among the poorer classes, and with others, often the change is not practicable; then too, by reason of the tentative measures for their relief applied by parents and neighbors, many simple cases go on rapidly to a dangerous stage of the inflammatory process before the doctor is called in. We are summoned, in short, very often, to see a child with a hot skin (temperature 102½° 105°) rapid pulse (130–150 and breathing (30–40) with frequent purging semifluid, greenish, watery, fecal and half digested matters; the mouth and tongue are dry, the thirst is intense, but the water given to appease it is quickly thrown off. the eyes are staring, pupils contracted, insomnia, rolling the head and uttering distressing cries, due to the headache from hyperæmia of cerebral vessels and the unappeased thirst.

I proceed at once to give the little sufferer a bath in hydrant water, which with us, in summer, is about 75°

I have found it necessary to superintend this for the first time myself as there is great reluctance, if not decided opposition, on the part of many mothers to its use, because the child always screams lustily as soon as it begins to touch the water. I usually direct the feet and legs to be gradually immersed, at the same time pouring cold water from the hand over the chest and abdomen until the whole body is under water. Then the head is held in the left hand, while colder water (cistern temperature—650

is poured in a continuous stream over the upper part of the head. This kept up for ten to fifteen minutes In the mean while the little patient ceases to cry and struggle, and is evidently greaty comforted, more especially if you give it freely of cool water to drink, the greedy swallowing of which shows how much its distress is due to thirst.

After the cold bath the child should be wrapped unwiped, in a thin wollen shawl, and laid upon its bed, with a slight additional covering and generally falls at once to sleep. The skin is cool, the pulse has lost frequency, fullness, and force; the breathing is slower, while the temperature in the axilla has fallen below the natural standard. The reduction may seem at first too great, but reaction soon begins, and a healthy warmth and perspiration are established. The whole scene in fact has so changed that you will have no difficulty thenceforth in getting a bath given three or four times a day, if the alarming train of symptoms make show of revival; and they will revive to such an extent as to require exhibitions of the bath from time to time for two or three days perhaps; for the diseased state of mucous membrane within has not been as suddenly relieved as the abnormal heat of the body.

In the mean time internal treatment should be vigorously if not heroically practised. Quinine and whiskey beef-tea, milk and lime water, are to be freely employed until the fierce symptoms cease to show themselves. One grain of quinine and a half to a teaspoonful of whiskey every three hours for a child eight to sixteen months looks rather formidable, but they will be borne admirably. As the febrile state becomes subdued, bizmuth and pepsin should be given every three hours to restrain the diarrhœa and to assist the digestion so greatly at fault, owing to the blow which the mucous membrane has suffered.

From my experience I am persuaded that under this plan of treatment nearly every case of entrocolitis may be saved.

For cholera infantum, if seen early, give a hypodermic injection of morphia of suitable dose to be followed up with small doses of calomel and camphor in sugar and milk, until biliary dejections are seen.

Respectfully

C. G. COMEGYS.

THE USE OF PODOPHYLLIN.

Says the London *Medical Times and Gazette*:—

M. Demarquay having of late made frequent use of this substance at the Maison Municipale de Santé, where a large proportion of the patients are women, M. Merchaut, his *élève* published in the *Bulletin de Thérap.* for August 30th, an account of the results that have been obtained of forty patients to whom it has been administered. Three only resisted its effects, and in these the constipation was rendered obstinate by mechanical obstacles. As a gener l rule its effects take place about twelve hours after its administration, the most extreme periods on either hand that were observed having been seven and nineteen hours. The medicine acted with little or no pain, either prior or subsequent to the stools; but it was often found that the patient had an inclination fr stool without any result. This was especially the case in the subjects of obstinate constipation, and and was obviated by increasing the dose, or better still by more frequent repetition of the remedy. The stools produced are remarkable for their non-diarrhœic character, being semi-liquid only, and often normal in color and consistence; and podophyllin may be long employed without producing any secretory disturbance in the canal, and without inducing super-purgation to be followed again by constipation. The medicine may, however, act in this mischievous way if given in too large doses (five to ten centigrammes) and without bearing due relation to the age of the patient and the degree of constipation. In the stools there is also found a considerable portion of bile when the dose is properly apportioned. The various accidents said by some authors to attend the use of podophyllin (as vertigo, sweating, loss of appetite, vomiting, dysentery, etc.) have not been met with among M. Demarquay's patients, even when the medicine has been contiued for a long period. This may be attributed to the small doses given, which have never exceeded six centigrammes. The formula which after various trials has been found most convenient, consists in a pill made of three centigrammes of podophyllin, two of extract of hyoscyamus, two of soap. This pill also constitutes the best average dose for an adult. It will sometimes, however, be insufficient in the subjects of habitual constipation, while for children one or two centigrammes suffice. When the three centigrammes do not prove sufficient, the dose may be gradually increased, or, what is preferable, the pills may be given oftener, so that one is administered every twelve instead of every twenty-four hours. And when these do not suffice, it will be preferable, in place of increasing the quantity of each dose, to repeat the pill every eight or six hours. At the end of the third day at latest the effect will have been produced, it being also explained to the patient that the medicine is not intended to act as a purgative, but as a remedy against constipation, in order to secure the necessary patience. Stools once secured, the medicine must always be administered at the same time of the day, and the patient acquire the habit of going to stool. Ten or fifteen days may be required for this purpose, and then the doses must be gradually given at more prolonged periods; so that perhaps a month altogether may be required to overcome the constipation.

LOCAL ANÆSTHESIA IN CASES OF LABOR

Dr. Friedlander in *Deusche Klinik*, No. 30, 1874 that being called to a woman who was suffering intolerable pain in the sacral region, he resorted to an application of chloroform (one part) and ether(two parts) after having vainly tried several other means. He obtained by this means total cessation of all pain, until perfect delivery. After having successfully tried the same application in a great many cases, he recommends its employment as an anodyone for the pains of parturition.

ON THE LOCAL USE OF TANNIN.

MR. THOMAS writes to the *British Medical Journal*, on concentrated solution of tannin as a styptic: "I have used it for some years, as a topical application, in various diseases, though rather as an astringent than a styptic. To prepare it of full strength an ounce of perfectly fresh tannin must be mixed with six drachms of water, in which it readily dissolves. The solution is a thick fluid, of the color and and consistence of treacle, which keeps much better than tannin itself. Most of the tannic acid found in shops contains a large proportion of gallic acid, and will not yield a very strong solution. But if an ounce of old tannic acid be mixed with two ounces of water, a tolerably strong solution, which answers for many purposes, may be decanted off after subsidence.

"The strong solution of tannin is a most powerful astringent, almost free from irritating properties. It is one of the best dressings for wounds, far superior to collodion, and even less irritating than the styptic colloid, which it somewhat resembles. If applied by a brush, and allowed to dry, it soon forms a pellicle which excludes the air, and gives ease to pain. It may be applied to almost any form of ulcer, and to wounds after amputations or other operations, especially when not very deep. It answers well, for instance, after the operation of hare-lip, painted over the pins and thread, in the same way as collodion is sometimes used.

"In a female, aged twenty-six, the hair was caught between rollers and the whole scalp removed to within an inch of the left eyebrow, and two inches from the right, round on a level with the tips of the ears to about the external occipital protuberance, the periosteum being extensively removed at the vertex. There was much suppuration, followed by erysipelas. After three months, exfoliation of bone occurred, and skin-grafting was performed, first with eleven grafts, and, six weeks subsequently, with twenty-one After varied treatment, antiseptic and other, little progress was made till nine months after the accident, strong tannin solution was applied. Discharge and fetor diminished at once, and the healing process went on more quickly than before. Tenderness diminished, and the general health improved rapidly for the first time since the accident. The wound, eighteen months after the accident, was about half its original size, and the discharge trifling. The patient does household work, wears only a thin cap, and is little worse for the accident, generally or locally.

"Strong tannin solution applied to the ulcerated skin of toe-nail at once removes pain. After one application, the offending corner of the nail may be readily raised, a little lint inserted underneath, and the nail allowed to grow up. Among many cases, I have in this way cured one in which evulsion, twice performed, had proved only a temporary remedy, the disease being reproduced each time the nail grew up. For cracked nipples, this solution, diluted with an equal quantity of water, is the best application, and corresponds to the tannin solution commonly used for this purpose.

"Enlarged tonsils may be reduced by daily brushing with this solution. This treatment, though vastly inferior to extirpation, or even to the application of potassa cum calce, is painless, and therefore, in some cases, useful. Bleeding warts may be readily removed by this application, as also by the perchloride of iron. I have found the former to readily reduce the granulations from an unhealed umbilicus in an infant."—*Medical and Surgical Reporter.*

THE CANADA MEDICAL RECORD

A Monthly Journal of Medicine and Surgery.

EDITOR:

FRANCIS W. CAMPBELL, M.A., M.D. L.R.C.P., LOND.

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MONTREAL GENERAL HOSPITAL.

As we have among our readers a great many, who, having walked the wards of this hospital, during their student days, continue to take an interest in its welfare, we feel that we need offer no apology for inserting the following particulars concerning it, which we gather from the Fifty-third Annual Report which has just reached us. The ordinary income for the year has been $40,746.70, and the ordinary expenditure $34,073.35, showing an excess of income of $6,673.35. The extraordinary expenditure of the year has been $25,151.18, and the extraordinary income $3,586.66, showing an excess of expenditure of $21,564.52. The bulk of this expenditure, viz., $21,066.00, has been paid for the acquisition of a lot of land, fronting on St. Constant street, and having its rear adjoining the present Hospital property, and on which was built some seven or eight tenement buildings. This property has been acquired with a view of giving to the present Hospital buildings, more breathing space, so to speak, and when other surrounding property has acquired, which we understand is intended, of extending the Hospital accomodation. When this comes to be done, we hope it will be accomplished in a way which will prove valuable to the institution, and that no more folly will be committed similar to what is now universally admitted was perpetrated when the Fever Hospital was built, and still later in the erection of the Morland Wing. This sum of $25,151.18 for extraordinary expenditure has been

met as follows:—1st the extraordinary income of $3.586.66, 2nd the excess of the ordinary income over expenditure of $6,673.35, and 3rdly by taking from its stock account the sum of $14.891.17—these three items footing up the amount of the extraordinary expenditure. On the 15th May, 1874, the stock account of the Hospital—consisting of bonds, mortgages and stocks—amounted to $97,095.55; the amount taken from it to supply deficit in extraordinary income, reducing it to $82,204.33.

The number of patients treated in the wards during the year was one thousand nine hundred and seventy-five, and there were fifteen thousand, seven hundred and twenty-six out-door patients attended to. Of the in-door patients, one hundred and sixty-eight died, and one thousand four hundred and thirteen were discharged cured, one hundred and eighty-nine improved, and forty-six unimproved. One hundred and forty-nine remained in the Hospital at the close of the year. Such a record speaks volumes for the care and attention which the Medical Staff of the Institution must have given those committed to their charge. In the nursing department, important changes are announced, and not a bit too soon. A lady instructed at one of the English training schools for nurses, originated by Florence Nightingale, and who has for some time past held office in St. Thomas' Hospital, has been engaged to take charge of the Institution as Lady Superintendent or matron, and has been authorized to bring with her four trained nurses. It is confidently expected that much benefit to the patients, as well as to the resources of the charity, will attend the employment of persons practically conversant with the duties of nursing as now taught in European institutions. We have no doubt but that the expectations of the Committee of Management will be more than realised. The question of a convalescent home is alluded to in the Report, and of the necessity for such an institution there can be no question. Its locality, however, is a subject which requires much earnest consideration, and we hope it will receive it. We make this remark, because incidentally we have heard of overtures, unofficial perhaps, and yet overtures nevertheless, which have been made by persons interested in the Montreal General Hospital, to persons interested in the proposed Western Hospital—that the ground now possessed by the latter corporation, should be devoted to a Convalescent Hospital. Whether the Western Hospital is completed or not (we have the strongest belief that it will), no greater mistake could be perpetrated than placing a Convalescent Hospital on that spot or any other in its near neighborhood. Even the well-known Tannery property is far too valuable to be used for any such purpose, and would far too soon be shorn of that quality which in our opinion is a indispensible for a Convalescent Home—isolation with complete country surroundings. Some spot, such as Lachine or the back River, easy of access, and where a large piece of land can be obtained at a cheap rate, is in our opinion the place for such an institution, and not where land costs from twenty-five to sixty cents a foot. In the Old Country we know that the Convalescent Home of the Glasgow Royal Infirmary is at Dunnoon on the Clyde, thirty miles from Glasgow, and we are informed that for the Manchester Infirmary is six miles from the City. The announcement is made, of the appointment of a Staff of four Physicians, whose duty it is to attend to the out-door patients. The wisdom of this step—which we upon several occasions, strongly urged—is shown in the greatly increased attention and care which is devoted to the out-door department. During the year, twenty-two new Governors were added to the Institution, while three died, viz., Mr. William Molson, Mr. Edwin Atwater, and Dr. Sutherland. Altogether the Report is a very favorable one, although the year's proceedings are not in one or two instances beyond criticisim. We, however, prefer, at all events for the present, not to name them, but rather point to the great good which this Institution is doing, and to the fact that all those concerned in its management are deserving of the thanks of the Community.

SMALL-POX HOSPITAL FOR MONTREAL.

The subject of the erection of a Small-Pox Hospital in Montreal is one which, at various times during the past three or four years, has received a good deal of attention, not alone from the Civic authorities, but from the citizens generally. By the amendment to the Act of Incorporation, of the city, the sum of $50,000 was authorized to be expended for such a purpose. When the matter came formally before the Council, the, to our idea, insane proposal was made to divide this sum between the Hotel Dieu and the Montreal General Hospital, and so vehemently was this proposition urged that sensible members of the Council thought it wise to drop the matter for a time. Subsequently, with a view of assisting in bringing the question to an issue, the Board of Health sought the assistance of

the three Medical schools in Montreal. Three questions were submitted, the two principal having reference as to whether the money should be divided between the two above-named hospitals, or that it should be used to erect one hospital; and, secondly, as to whether it would be advisable to place it under civic control. McGill College and Bishop's College Medical Faculties were on these two points entirely of one mind, viz., one hospital under the direction of the City. The Medical Faculty of Victoria College, who have medical control of the Hotel Dieu, stated the willingness of the Sisters to accept the twenty-five thousand dollars, and erect on their present Hospital site, a building to accommodate small-pox patients, and they favored isolation *as far as possible*. At the time we combated these views, and explained that the words which we have placed in italics were not such as we would have anticipated from such a body of scientific medical men. We likewise stated that we had information that the intention was to connect the proposed Small-pox building with the main building of the Hotel Dieu, by means of a covered way, and our assertion has never been contradicted. This occurred in April, 1874, and it was hoped then that matters would come to some definite issue, but they did not. In November of the same year, small-pox had attained such a hold upon the city, that the Board of Health were obliged to act with decision, and, amid much commotion they took possession of the Hall house, situated on a portion of the new Mount Royal Park. It was ill adapted for such a purpose, and yet it was evidently the best thing to do, all circumstances considered. Within its walls, patients have necessarily been crowded, without any regard to a due quantity of cubic space, and, as a necessary result, the mortality has been excessively large. The main question, shelved for a time by this action of the Board of Health, has again been taken up by them at a meeting held on the 15th of September. At this meeting replies were read from the Ladies of the Hotel Dieu, and from the authorities of the Montreal General Hospital. The former were willing to accept the $25,000 on certain conditions. They would provide for forty patients out of that sum, if the necessaries of life did not increase in expense, *but they stated that they could not admit children under seven years of age.*

The letter received on behalf of the Montreal General Hospital was also read. It stated that the Committee of Management, after giving careful consideration to the subject, had come to the conclusion first, that seeing the extent to which small-pox prevails in this city, the evil can only be adequately dealt with by the city authorities, and that a public small-pox hospital should be erected on the plan most approved of by sanitary science. Secondly, they declined the sum on the terms desired, as even if a building suitable could be erected for $25,000, its maintenance would be a continual drain upon their resources.

These two replies for the first time placed the matter in a light such as it never was in before. It was evident that the offer of the Hotel Dieu could not for a moment be entertained, for they would not receive children under seven years of age, and fully three-fourths of the deaths which occur from the disease are among children under that age. The reply of the Montreal General Hospital being decidedly negative, the Board of Health for the first time seemed as if they felt they were free to act. The chairman had plans of a proposed civic Hospital, which he brought before the meeting, but, as they were simply exhibition plans, we will content ourselves by saying the style was the Pavillion, with accommodation for about one hundred patients. After a considerable amount of discussion however, the following resolution was put to the Board of Health and carried.

That, seeing the letters received from the Hospital authorities, the Board of Health are of opinion that a Civic Hospital for small-pox and other contagious diseases should be erected, and they recommend to the Council the purchase of a piece of ground outside of the city limits, and to erect thereupon a cheap class of buildings, with accommodation for 100 patients, the hospital to be under civic control.

This is certainly a good step gained, but the matter has yet to come before the Council for final decision, when we fear we will have another exhibition of that religious intolerance which is fast bringing disgrace on our city. In the name of all that is reasonable, will any one, possessed of intelligence, give us an intelligent reason why a Catholic or a Protestant, a Jew or a Pagan cannot be treated religiously, medically and dietically in an Hospital which is under the control of the city. They are so treated elsewhere, and if so, why cannot it be so here. Let us have a truce to this religious illiberality, and we will then have a civic Hospital which will be a credit to us, and which we doubt not will be the means of saving a large number of valuable lives.

TO OUR SUBSCRIBERS.

We venture to again appeal to our subscribers in arrears, all of whom received accounts in the last two numbers of volume three. To those who have responded we tender our sincere thanks, for their mindfulness has been appreciated by the printer. Those still in arrears we hope will at once pay up.

BIRTHS AND MARRIAGES.

So far as we come across them in the public prints, we insert the births which occur in the families of Medical men. We also endeavor to keep track of those of our profession who enter the matrimonial state, but, as it so happens, very often, both these events occur and escape our notice. Sometimes a subscriber is the happy party interested and he watches for the *Record*, to see how it looks in it, and is woefully disturbed to find it has not been copied; once or twice we have received letters, couched in not the most friendly terms, from aggrieved parties. We rectified at once and willingly the omission, but we fear the sore remained. To avoid it in future, we beg of our friends to forward to us at once, formal notice of these interesting events, as soon as they occur.

OBITUARY RECORD.

Sir Charles Locock, M.D., D.C.L., F.R.S., died in England, on July 23rd, aged 76 years. Dr. Locock was physician-accoucheur to the Queen, and attended her Majesty during her nine successive confinements.

Dr Peter M. Latham, died at Torquay, on the 20th July. He was physician extraordinary to the Queen, and formerly one of the physicians of St. Bartholomew's Hospital.

Mr. John Churchill, the well known medical publisher of London, died on the 3rd August, aged 74 years.

Dr. Gibb, of Helensburgh, Scotland, died suddenly at Prescott, on the 15th September, from hæmatemisis. He was *en route* to Montreal, on board the steamer *Corsican*, and was so ill that he was landed at Prescott, when everything possible for him was done by Dr. Brouse. His body has been removed to Scotland.

Dr. Alexander Fleming, of Birmingham, Eng., died at Buxton on the 21st of August. He was best known in this country for his researches on the action of aconite—a strong tincture, dose one to two drops of aconite, being called after him, and is much used in Montreal.

FLEETWOOD CHURCHILL, M.D., OF DUBLIN.

Few names are more familiar to Canadian practitioners and students than the one which heads this article. As an author on the important subject of obstetrics, he has for the past thirty years been above all other men—the authority in fact—on this branch of the Medical profession. After almost half a century's active practice, Dr. Churchill a few weeks ago finally retired into private life. He has removed to the country, where he intends to pass the remaining years of his life.

Dr. Churchill's retirement was graced by a generous gift to the King and Queen's College of Physicians, on his own part, and on that of his son, Dr. Fleetwood Churchill, jun., of the valuable obstetrical library he had collected during his lifetime. The President and Fellows, recognizing the value of the gift, and the generosity of the donors, have resolved to place a portrait of their ex-President and Fellow in the College Hall.

PROSECUTIONS UNDER THE ONTARIO ACT.

In the month of August, the Council of the College of Physicians and Surgeons of Ontario, commenced actions against several of the most noted quacks, residing in Toronto—one was fined $50 and costs, and another was dismissed, and the third was reserved for judgment. We are glad to notice this activity on the part of the Ontario College, but sorry to see that the support which they had a right to anticipate from the public was not accorded them.

OPENING OF THE MONTREAL MEDICAL SCHOOLS.

McGill Medical Faculty and Bishops College Medical Faculty opened on the 1st October. In the former the introductory lecture was delivered by Professor Girdwood and in the latter by Professor Wilkins. The Medical Faculty of Victoria College does not open until the 5th of October.

MEDICAL CALENDARS.

We have received the annual Calendar of the University of McGill College, which, as usual, gives in a concise form all the information which is important for intending students to know. The calendar of the "Ecole de Medicine et Chirurgie de Montréal" has also reached us. It is neatly printed, and gives the usual information. We would suggest, however, that the long and so far as we can see useless, string of names which is inserted at the close of the Calendar, should be expunged, and an alphabetical list arranged—first of those students of

the School, who passed before the College of Physicians and Surgeons of Lower Canada, previous to the School becoming affiliated to a University, giving the date of their license, and, second, a list of its graduates since its affiliation with Victoria University, with the year of their graduation. Such a list would be valuable. We hope our friends will take the hint.

The Calendar of the Laval University has also been received. This school seems to have its share of students, and its course is certainly a most complete one.

THE ONTARIO COLLEGE OF PHARMACY.

We are pleased to notice by the September number of the *Canadian Pharmaceutcial Journal*, that the interest taken by Pharmaceutical Students in the Ontario College of Pharmacy is steadily increasing. At the first examination which was held in August, 1874, only five candidates presented themselves, while in August, 1875, forty-three entered their names. This is most satisfactory information, and we trust the same success will attend the Quebec College of Pharmacy.

BOWKER vs. BEERS.

By a mistake, which we cannot well explain ,in our last issue, we published the decision of Judge Taschereau of the Court of Appeal, which decision was in favor of Mr. Beers, and neglected to give the decision of the majority of the Court, which was in favour of the plaintiff, Mr. Bowker. We, therefore, as a matter of simple justice to Mr. Bowker, publish the entire decision of the Court. We have kept our readers posted on this law-suit, which has dragged its weary length along, for several years—because we believed many of them would feel interested in the case, from having read the article of Mr. Bowker, which appeared in the *Canada Medical Journal*, and which was the commencement of the difficulty which ended in the present suit.

BEERS AND BOWKER.—TASCHEREAU, J., dissenting :—Bowker, a dentist, sues Beers, another dentist, for libel in an article in a medical journal. The latter says he was only replying to a previous article of Bowker's. Is there compensation of damages? Bowker had condemned the use of amalgam in stuffing teeth, saying it was poisonous and hurtful, those who used it were either dishonest or ignorant. Beers replied that nearly all practitioners in Canada used it, and even Bowker himself did. Is the amalgam injurious? A large number of doctors and dentists say it is innocent. Judgment went for $10 damages and costs of the Superior Court. I would reverse this, and send the parties out of Court, each to pay his own costs.

DORION, C.J. :—We won't attempt to decide whether amalgam is injurious or not. We will leave that to the doctors, and it is notorious that doctors differ. The libel is in Beers charging Bowker with using this amalgam he so strongly condemned, which was equivalent to calling him an imposter and a charlatan. I may say it was not at all proved.

RAMSAY, J. :—Bowker is a fortunate litigant. He indulged in lively writing and laid himself open to an answer, but the answer went too far. The charge is that of using what he said was poisonous and injurious. I may say there is no plea of compensation in the record, but one of provocation, which does not go so far. Beers went beyond the rights of fair criticism and was guilty of a serious offence,

SANBORN, J.:—Bowker only wrote against a body. Now, if a man should accuse a whole nation of a certain offence, each individual of the nation would not have an action to avenge the wrong. It is no question of amalgam, but whether Bowker used what he condemned. In the medical profession thay have no umpires to decide disputed points ; so their criticisms are apt to be more severe than is permissible. Judgment confirmed. Carter & Keller for appellant; A. & W. Robertson for respondent.

ARTIFICIAL COOLING OF ROOMS.

In the hot months it is worth while to bear in mind the plan adopted by M. Martin in order to keep the rooms of the sick in a state of freshness. This consists in opening the windows widely, and then hanging wet cloths before them. The water as it vaporizes absorbs the caloric, and lowers the temperature of the apartment by several degrees, while the humidity which is diffused renders the heat much more supportable. By adopting this plan, patients find themselves, even in the height of summer, in a freshened atmosphere, analogous to that which prevails after a storm.

PERSONAL.

Dr. Hingston, Mayor of Montreal, was married at Toronto, on Thursday, the 16th of September, to Miss Margaret McDonald, daughter of His Honor the Lieutenant Governor of the Province of Ontario. On the Saturday evening previous to his marriage, his bachelor friends in Montreal entertained him at dinner at the St. James Club ; and on the Monday evening following, his bachelor friends in the Medical profession, also entertained him at dinner at the Metropolitan Club. Dr. Roddick occupied the Chair, and Dr. Brosseau did the duties of the Vice-chair. We are sure we only

repeat the wishes of his very large circle of professional friends throughout the Dominion, when we express the hope that the newly-married couple may be spared to a good old age, and be blessed with all the happiness which it is possible for mortals to enjoy.

Dr. Frederick J. Austin, formerly of Sherbrooke, but who for the past year has resided in Montreal, has been induced by his large circle of friends and patients to return to Sherbrooke, and again resume his practice, which two years ago he was obliged to give up, on account of poor health. We had hoped that we would have been able to keep Dr. Austin among us, for his talents as a medical man are such as to reflect credit upon the profession, among whom he may sojourn—but the pressure of his former patients was very great, and he eventually consented to return. His health is now, we believe, completely restored. In his old sphere, he will soon have his hands full.

Dr. Molson of Montreal (M.D. McGill College, 1874), who but recently returned from an extended trip in Europe, sailed again for England by the Allan S. S. Prussian, on the 11th September.

Dr. Beaubien, has resigned the Chair of Practice of Medicine in the Medical Department of Victoria College, Montreal. He has been connected with this Faculty for a great many years—in fact we believe, ever since its establishment as the "Ecole de Medicine et Chirurgie de Montréal."

Dr. J. P. Rottot succeeds to Dr. Beaubien's chair, as Professor of Practice of Medicine. He also lectures on Clinical Medicine.

Dr. A. T. Brosseau has been appointed Professor of Medical Jurisprudence in the Montreal Medical Faculty of Victoria College.

Dr. Robert Frederick Godfrey, C.M., M.D., Bishop's College 1873, passed his final examination, and was admitted a member of the Royal College of Surgeons of England, on the 22nd of July, 1875.

The following medical gentlemen represent the undermentioned counties in the newly elected parliament of the Province of Quebec:—Chateauguay—Dr. Laberge; Huntingdon—Dr. Cameron; Gaspé—Dr. Fortin; Joliette—Dr, Lavalle; Napierville—Dr. Lafontaine; Ottawa—Dr. Duhamel; Pontiac—Dr. L. R. Church; Portneuf—Dr. Larue; Quebec Centre—Dr. Rinfret; St. Maurice—Dr. Lacerte.

The College of Pharmacy of Montreal have named the following staff:—Dr. J. Baker Edwards, Professor of Chemistry; Dr. Kollmyer, Professor of Materia Medica, and Dr. J. B. McConnell, Professor of Botany. These three gentlemen are professors of the same branches in the Medical Department of Bishop's College.

Dr. Steeves, of St. John, New Brunswick, has been appointed by the Home Government of that Province, Medical Superintendent of the New Brunswick Provincial Lunatic Asylum. It is understood that several medical gentlemen of high medical qualifications, were candidates for the position, but the very cordial manner in which Dr. Steeves was recommended for the appointment by a large number of his *confrères*, induced the Government to select him for the office. Dr. Steeves is a medical man of extensive experience, having for many years enjoyed a large practice in St. John, and, as we are personally acquainted with him, we have much pleasure in endorsing the appointment. He has also, we may add, been a warm friend of the Canadian Medical Association, ever since its organization, and a pretty regular attendant on its meetings.

Dr. Carlyle, of Toronto, had his summer residence at Cacouna this season.

Dr. Cameron, of Huntingdon, has again been elected a member of the Local Legislature of Quebec.

Dr. Russell, M.D., Edinburgh, son of Dr. R. H. Russell, of Quebec, has settled in Quebec, and is rapidly establishing himself in practice.

Dr. Sheppard, M.D., McGill College 1874, has returned from England, and commenced his duties as Demonstrator of Anatmoy at McGill College, at the opening of the session on the 1st October.

Dr. Clarence Chipman, M.D., McGill College, 1870, late House Surgeon of the Montreal General Hospital, has located himself in Prescott, Ont., where we believe he intends to reside permanently.

Dr. R. A. Kennedy, of Montreal, has been appointed Assistant Surgeon of the 6th Battalion, Hochelaga Light Infantry.

Dr. Cassils, of Quebec, was at Murray Bay during the season, and was much appreciated by the summer residents of this favorite Canadian watering place.

Among the many physicians, who this season visited Cacouna—Canada's fashionable watering place—were: Drs. G. W. Campbell, R. L. MacDonnell, J. H. Dugdale, and Francis W. Campbell, of Montreal; Dr. R. H. Russell, of Quebec; Dr. Carlyle, of Toronto; Dr. Peaslee, of New York; and Dr. Brandan, of Richmond, Virginia. Dr. D. C. MacCallum, of Montreal, visited Kamouraska; Dr. Reddy, of Montreal, visited Murray Bay, and Dr. Trenholme, of Montreal, visited Little Metis, all in the Lower St. Lawrence. Dr. R. P. Howard, of

Montreal, visited Peterboro', Ont., and its neighborhood, and Dr. Robert Craik, of Montreal, spent a short time on the Maine Seaboard. The following medical men from Montreal attended the meeting of the Canadian Medical Association at Halifax, viz:—Drs. Wm. H. Hingston, Mayor of Montreal, Dr. A. H. David and Dr. Robillard.

Dr R. A. Stevenson, M.D., McGill College, 1871, of Strathroy passed his examination, and was admitted a member of the Royal College of Surgeons of England, on the 22nd of July last.

A WORD OF EXPLANATION.

It will be noticed that the present number is dated October, Vol. iv. No. 1. This will, perhaps, appear singular, for, as our readers are aware, our Volume has heretofore commenced in August. The change, however, comes in this wise: During the past summer we were obliged, owing to poor health, to leave the city for a considerable time. Before doing so we made, as we presumed, arrangements which would ensure the issue of the July number, of the *Record*, a little late, it is true, but only to the extent of a few days. On our return on the 1st of September it was to find that, owing solely to the printer, our July number was still in his hands. A few days sufficed to issue it, but the task was then presented to us of issuing three numbers within a period of four weeks, so as to gain lost time. We confess that, with the accumulation of other work, and still feeling somewhat previous illness, the task was not an inviting one. After much thought, we therefore decided to commence Volume four with the October number, especially as it really made no difference to subscribers, all of whose subscriptions commence and end with the volume.

CANADA MEDICAL ASSOCIATION.

HALIFAX, 4th August, 1875.

The *eighth* Annual Meeting of the Canada Medical Association was held this day, when were present Drs. Botsford, Thorburn, Hodder, Walker, White, Robillard, Muir, Munroe, C. C. Hamilton, Rosebrugh, Harding, Atherton, Ryan, Dewolf, Lawson, Fleming, Jennings, Farrell, Johnston, Peppard, Burgess, Moren, Campbell, McMillan, Hingston, Gordon, Oldright, Christie, Dawson, Kerr, Sanford, Clay, J. F. Black, R. S. Black, Parker, Tupper, Earle, Steeves, Wickwire, and David.—

The President, Dr. Botsford, took the chair at 10.25 and called the Meeting to order.

The Committee of Arrangements reported as correct the credentials of Dr. P. Pineo of the U. S. Navy, as Delegate from the American Medical Association and the Massachusetts Medical Society, and of Dr. Jno. E. Tyler as Delegate from the Massachusetts Medical Society

The President welcomed the presence of these gentlemen and requested them to take seats on the platform; both gentlemen replied in a few well-chosen words.

The Minutes of the last day's session of last year's Meeting were read and confirmed.

The following gentlemen, being duly proposed and seconded, were elected permanent members:

Drs. Barter, Moncton; Lawson, Halifax, Sharp, Norton; Fleming, Sackville; Ryan, Sussex; Woodill, Halifax; Campbell, Halifax; Peppard, Great Village; Walsh, Halifax; Dodge, Halifax; Sanford, Hants; DeBurgess, Hants; Kerr, Londonderry; Clay, Halifax.

A letter from Dr. W. B. Atkinson, secretary of the American Medical Association, was read, informing this Association "of the appointment of the following gentlemen as a Committee of Conference, to meet a like number from this Association, at such time and place as may be agreed upon by the Joint Committee of the Associations:"

Drs. S. D. Gross, Philadelphia, Pa.; J. T. Hogden, St. Louis, Mo.; Austin Flint sen. New York City; W. Walling, Louisville, Ky.; L. C. Lane, San Francisco, Cal.; Wm Johnston, Jackson, Miss.; Wm. Brodie, Detroit, Mich.; J. M. Toner, Washington, D. C.; F. D. Cunningham, Richmond, Va.; E. Andrews, Chicago, Ill.; W. B. Atkinson, Philadelphia, Pa.; D. J. Bowditch, Boston, Mass.; Robert S. Bartholoer, Cincinnatti, Ohio.

A letter was read from Dr. S. D. Gross of Philadelphia, expressing his regret at not being able to be present at this Meeting, and, as Chairman of the Committee of Conference, giving the names of the Committee, and suggesting Saratoga as the place of Meeting, and that the conference be held about the 10th September.

Letters of regret, at not being able to be present, were send from Dr. Marsden of Quebec and Dr. Trenholme of Montreal.

The Committee of Arrangements announced

the credentials of Dr. F. L. Warner of Boston, as Delegate from the American Medical Association, as correct, and Dr. Warner was requested to take a seat on the platform.

On the motion of Dr. HINGSTON, seconded by Dr. EARLE, the order of business was suspended, so that the President's address should be delivered at 12 o'clock noon, and the Association proceeded to consider orders 8th and 9th of the Order of Proceedings.

The Secretary reported that one hundred copies of the transactions of the last Meeting had been published, and one hundred and fifty extra copies of the By-laws.

Dr. HODDER offered a few observations on medical education, explaining the mode of conducting the examinations in the College of Physicians and Surgeons of Ontario, by which teaching bodies were not allowed to examine their own students, and recommending that one standard and system, if possible, should be adopted throughout the Dominion; and he would like the matter referred to a Committee from all parts of the Dominion. Drs. Pineo, Warner, David and Oldwright made a few remarks on the subject, and the matter was deferred until later in the session.

The Committee of Arrangements then announced that papers would be read during the session of the Association, by Dr. Botsford, President, Drs. Larocque, Oldright, Rosebrugh, Farrell, Dodge, Gordon, Harding, Caniff, Hodder and Reid.

Dr. C. H. Munroe of Picton was elected a permanent member.

Dr. Pineo presented to the Association in the name of Dr. Woodworth, Supervising Surgeon General, four volumes, being his published reports, &c.

The thanks of the Association were tendered Dr. Woodworth for his donation, and Dr. Pineo was requested to convey the same to Dr. Woodworth.

The President then delivered his address, when it was moved by Hon. Dr. TUPPER, seconded by Dr. HODDER, "That the thanks of this Association be tendered Dr. Botsford for his able and interesting address, and that he be requested to hand it to the "Publication Committee," which motion was carried by acclamation.

Dr. OLDRIGHT, seconded by Dr. MOREN, moved, "That the following members compose the Nominating Committee, Drs. Tupper, Robillard, Parker, Hingston, Wickwire, Harding, Atherton, Rosebrugh, Oldright and Thorburn." Carried, and the Meeting adjourned until half-past two p.m.

AFTERNOON SESSION, 4th Aug.

The President opened the meeting at 2.40 p.m.

The Minutes of the morning's Meeting were read and confirmed.

Dr. R. J. Black exhibited several well executed wax preparations of exanthematous diseases, for which the thanks of the Association were given to Dr. Black.

Dr. Botsford read an interesting paper "on the Climatology of New Brunswick and its Relation to disease," and also one "On Sanitary Science," written by Dr. Larocque of Montreal. Drs. Parker, Hingston, and Tupper spoke on these papers, Dr. Parker suggesting that a Committee be appointed to take up the subject of Vital Statistics. Dr. Hingston thought a medical man from each of the larger cities should be named to draw up a memorial to the Government.

The Committee of Arrangements recommended, "That the discussion on papers be limited to half an hour, and that no member occupy longer than five minutes in debate," and reported that the papers would be read in the following order:

1st. Dr. Oldright; 2nd. Dr. Roseburgh; 3rd. Dr. Harding; 4th. Dr. Hodge; 5th. Dr. Reid; and lastly Dr. Bent.

Then Dr. FARRELL, seconded by Dr. LAWSON, moved, "That the recommendation and report of the Committee of Arrangements be adopted." —Carried.

Dr. OLDRIGHT then read a paper "On the Ventilation of Drains," which excited a most interesting discussion, in which Drs. Farrell, Pineo, Walsh, Jennings, Christie, Tyler, and Warner took part. Dr. Oldright having replied, the thanks of the Association were given Dr. Oldright for his able paper.

Dr. FARRELL next read a paper "On Surgical Cleanliness," on which Drs. Parker, Jennings, Hodder, Atherton, Christie and Hingston offered observations, when a vote of thanks was unanimously carried to Dr. Farrell for his pithy and interesting paper.

On motion, Dr. Dodge and Sanford were appointed to examine the Treasurer's books and accounts.

It was then moved by the Hon. Dr. PARKER, seconded by Dr. DEWOLF, "That the President and Secretary of the Association be a Committee to memorialise the Dominion Government upon the "subject of Vital Statistics."—Carried unanimously.

Resolved: "That Drs. Botsford and Harding of New Brunswick, Hingston and Larocque of Quebec, Oldright and Fulton of Ontario and Moren and Gordon of Nova Scotia be a Committee to prepare a general act to be submitted to the several local Legislatures at their next session, on the subject of Hygiene and Sanitary Law, which was agreed to.

On motion of Dr. OLDRIGHT, seconded by Dr. ATHERTON, the order of business was suspended, to enable Dr. Hodder offer his motion referred from the morning session. Dr. HODDER then moved, seconded by Dr. FULTON, "That a Committee of two members of the Association from each Province of the Dominion, in addition to the Local Secretaries, be appointed, for the purpose of suggesting a universal code of education for the Dominion, based upon the system at present in operation by the College of Physicians and Surgeons of Ontario, and to report thereon at the next Annual Meeting, and that the Committee shall consist of the following gentlemen:

For Nova Scotia, Drs. Parker and Farrell; for New Brunswick, Drs. Botsford and Steeves; for Quebec, Drs. Hingston and Robillard; for Ontario, Drs. Thorburn and Temple, which motion was carried unanimously. Drs. Dodge and Sanford reported, after carefully examining the Treasurer's books and accounts, find them correct and regular.

It now being six o'clock, the Meeting adjourned until 8.

EVENING SESSION.

The President called the Meeting to order at 8.10 as there was a full attendance of members.

The Minutes of the afternoon session were read and confirmed.

In consequence of the absence of Dr. Rosebrugh, Dr. Dodge read a paper "On Opthalmology," upon which Drs. Hingston and Jennings made a few observations.

Dr. Gordon next read a paper, prepared by Dr. Bent of Truro, entitled, "Bent knee resulting from contraction," on which a most interesting discussion took place, in which Drs. Hingston, Jennings, Sommers, Oldright, Dodge and Steeves took part.

On motion, Dr. R. Zimmerman of Toronto was elected a permanent member, as was also Dr. D. E. Berryman of St. John.

An invitation from the Commissioners of Public Gardens, inviting the members of the Association to a concert in the public gardens, on Friday evening, at 8 o'clock, was then read, and on motion the invitation was accepted.

It was then moved by the Honorable Dr. PARKER, seconded by Dr. DAVID, "That the following compose the Committee to meet the Committee named by the American Medical Association:—

Drs. Grant, Ottawa; Hingston, Montreal; Hodder, Toronto; Botsford, St. John; Thorburn, Toronto; Fulton, Toronto; Farrell, Halifax; Atherton, Fredericton; F. W. Campbell, Montreal, Robillard, Montreal; Howard, Montreal; Parker, Halifax; David, Montreal.

Which motion was unanimously agreed to.

Dr. Rosebrugh then read a paper "On some practical points in the management of those forms of Eye Diseases more frequently met with by the general practitioner," and remarks were made upon it by Drs. Jennings, Hingston, Dodge and Farrell.

Dr. Warner, as Representative of the American Medical Association, thanked the Meeting for the cordial reception extended him and his colleagues from the States, and invited this Association to send a full Delegation to the next Meeting of the American Medical Association, to be held in Philadelphia in June, 1876, when Honorable Dr. PARKER moved, "That Delegates be now named," upon which the Honorable Dr. TUPPER moved, in amendment, "That the matter be referred to the Nominating Committee, with instructions to report tomorrow morning," which motion in amendment was carried. The Meeting then adjourned.

SECOND DAY.

HALIFAX, 5th Aug., 1875.

The President opened the Meeting at 9 a.m A full attendance of members.

The Minutes of last evening's session were read and confirmed.

On motion, the order of business was suspended, and No. 14 of the orders taken up for consideration, when the Hon. Dr. Tupper, as Chairman of the Nominating Committee, reported the following as the officers for the ensuing year:

President,—Dr. Hodder, Toronto.
General Secretary.—Dr. David, Montreal.
Treasurer.—Dr. Robillard, Montreal.
Vice-President,—for Ontario, Dr. Thorburn, Toronto.
" " " Quebec, Dr. Hingston, Montreal.
" " " Nova Scotia, Dr. Jennings, Halifax.
" " " New Brunswick, Dr. Earle, St. John.
Local Secretary,—Ontario, Dr. Zimmerman, Toronto.
" " Quebec, Dr. F. E. Roy, Quebec.
" " Nova Scotia, Dr. Gordon, Halifax.
" " New Brunswick Dr. McLaren, St. Johns.
Committee on Publication,—Drs. David, Robillard, Fenwick, Peltier and F. W. Campbell.
Committee on Medicine,—Drs. H. H. Wright, Howard and McDonald, of Hamilton.
Committee on Surgery,—Drs. G. W. Campbell, Oldright and Malloch of Hamilton.
Committee on Obstetrics,—Drs. Trenholme, Steeves and Beach.
Committee on Therapeutics, New Remedies and Medical Jurisprudence,—Drs. Fulton, J. W. Rosebrugh, of Hamilton, and Edwards of Strathroy, Ont.
Committee on Neerology,—Drs. Farrell, Wickwire and Holden, of St. Johns.
Committee on Medical Education and Literature,—Drs. Hodder, Hingston and Parker.
Committee on Climatology,—Drs. Marsden, Blanchaette, Botsford, Harding, D. Clark of Princeton; A. P. Reed, Page, DeWolfe, Larocque, Thompson and Rosebrugh of Toronto,

All of whom were duly elected, when Dr. Hodder returned thanks for the great honor conferred on him in electing him President.

It was then moved by Dr. HODDER, seconded by Dr. OLDRIGHT, "That Toronto be the next place of Meeting," which motion was carried unanimously.

Dr. OLDRIGHT then moved, seconded by Dr. HARDING, "That By-Law No. 3 be suspended, and that the Meeting next year be postponed until the second Wednesday in September," which motion after some discussion was lost. On motion the following gentlemen were elected as the Committee of Arrangements, with power to add to their number, Drs. Hodder, Thorburn, Oldright, Fulton and Rosebrugh.

Dr. Tupper, as chairman of the Nominating Committee, reported that the Committee recommend as Delegates to the next Meeting of the American Medical Association, The President and officers of this Association, and also that any member of this Association, on the recommendation of the Vice-President and Secretary of his Province, may be appointed as an additional Delegate, which report was received and adopted.

It was moved by Dr. EARLE, seconded by Dr. C. C. HAMILTON, "That the same sum as was voted last year be given the Secretary, and that the Treasurer be paid his expenses." Carried unanimously.

On motion, a vote of thanks was passed to the Grand Trunk R. R. Company, to the Quebec and Gulf Ports Steamship Line and to the Richelieu and Ontario Co. for the courtesy extended to the members attending the meetings in reducing the fares.

A vote of thanks was also given to the Young Men's Christian Association for the gratuitous use of their beautiful rooms.

On motion a gratuity of five dollars ($5) was voted to the Janitor for his trouble.

Dr. Reed then read a paper styled "Clinical Observations" which was ably discussed by Drs. Christie, Thorburn, Oldright, Walsh, Atherton, Muir, Earle, Parker and Dawson.

On motion the President left the chair and the Hon. Dr. Tupper requested to take it, when Dr. HINGSTON, seconded by Dr. OLDRIGHT, moved a cordial vote of thanks to Dr. Botsford for his able and affable conduct in the chair, which was carried by acclamation. Dr. Tupper having communicated the same to Dr. Botsford, Dr. Botsford returned thanks and the Meeting adjourned.

A. H. DAVID, M.D.
General Secretary.

BIRTHS.

In Montreal, on the 5th September, the wife of Gilbert P. Girdwood, M.D., of a son.

In Montreal, on the 13th inst., the wife of Dr. George Wilkins of a daughter.

In Pembroke, Ont., on the 5th inst., the wife of J. A. Desloges, M.D., of a daughter.

MARRIED.

At Cannington, on the 31st August, by the Rev. S. J. Taylor, Mr. John Anderson, second son of the late John Anderson, M.D., of Ormstown, Que., to Bessie, second daughter of the late Mr. James Bemister, of Hampshire, England.

In Montreal, on the 8th Sept., by the Rev Dr. Taylor, assisted by the Rev. J. S. Black and the Rev. T. Hally, cousin of the bride, James Stewart Tupper, eldest son of the Hon. Dr. Tupper, C.B., M.P., to Mary Wilson, eldest daughter of Andrew Robertson, Esq., Elm Bank.

At St. Michael's Cathedral, Toronto, on the 16th instant, by His Grace Archbishop Lynch, William Hales Hingston, M.D., L.R.C.S.E., D.C.L., of Montreal, to Margaret Josephine, daughter of the Hon. D. A. McDonald, Lieutenant Governor of Ontario.

Original Communications.

Introductory Lecture to the Fifth Session of the Medical Faculty of the University of Bishop's College, delivered 1st Oct., 1875.—By GEORGE WILKINS, M.D., M.R.C.S., Eng., *Professor of Pathology and Lecturer on Practical Physiology.*

GENTLEMEN:

According to a long-continued custom amongst Medical Colleges, we open our Winter Session with an introductory lecture. This year, the duty of delivering that lecture devolves upon me. The first portion of that duty is to convey to you the extreme pleasure it is to my colleagues and myself to see the familiar faces which during the winter months of former years studiously followed our instruction; also to see the new faces which will soon be familiar ones. I think it almost needless to say, you are all heartily welcome.

But, gentlemen, may I ask you, have you seriously thought over the object you have in view in coming here? Do you think that when you have completed your term of four years study and passed the necessary examinations, and in consequence obtained your diploma, your student days will be over? Do you imagine that after that happy event, all you will have to do will be to sit quietly in your office awaiting the commands of your patients; that your spare time (of which there will be no scarcity the first few years) you may spend in idleness and frivolity? Gentlemen, thoughts such as those are the shoals of medical life. Strand upon them and there is almost a certainty of mendering.

Doubtless your object in coming here is, that you can ultimately obtain the degree of Doctor of Medicine. To enable you to succeed in that object, it will be our duty and endeavor to impart to you the desired information. But you must constantly bear in mind that in our endeavors to convey to you a certain amount of information, we really do much more than that. The direction of your thoughts will be more defined. You will be taught to think systematically. You will be taught what to look for, and how to enquire. Just as the tourist bound for some foreign clime will spend much time previous to his departure pouring over hand-books, studying the route he should take, also the objects of interest on that route, you will have a mental route to pursue, and many objects of deep interest will be opened to your view before you reach your first goal. Those of you, who have already spent one or more years in the study of your profession, will have some idea of the nature of these interesting objects as well as the amount of work before you.

To you especially I wish to address myself, at first, for a few minutes. For that purpose I will step aside a little from the usual course of introductory lectures by bringing under your notice now a few of the more prominent advances made in Medicine within the last few years. This I do to impress upon you the rapidly progressive nature of the Science to which all of you, I presume, purpose devoting the remainder of your days.

It is but fifty years since Sir Charles Bell, by careful dissection of the roots of the nerves, discovered that those of motion and sensation were quite distinct. This discovery gave rise to the still greater advance made by Dr. Marshall Hall, the reflex action of the spinal cord, by unravelling which he showed us how all the functions of the animal economy are performed independent of the will, a discovery almost as great as that of the circulation of the blood. Before the time of these great physiologists it was all darkness as to the beautiful machinery by which the functions of life were carried on. No one knew why when the light fell upon the eye the pupil contracted, and when a still greater illumination fell, the eyelids closed to shut it out altogether; why the fauces grasped anything placed within its reach; or why even in sleep the hand immediately moves away any object that may be irritating the skin. The reflex action of the nervous system at once furnished a clue to many obscure pains that had been treated locally, but which might have resulted from the altogether unsuspected irritation of some internal organ.

Following in quick succession the wake of these discoveries was that of the governing power of nerves over contraction of vessels and over the work of the glands and secretion of membranes. The recognition of nervous centres; of the comparative independence, so to speak, of ganglia; of the effect produced on their centres by reflex irritation and by direct irritation by the circulation of poisoned blood. All these and other similar discoveries have occurred within very few years. Our knowledge of these explain the group of symptoms which under the name of Metastases used so to puzzle our forefathers.

Within the last five years, most important experiments have been made, resulting in being able to localize the functions of the brain. Contrary to the universally received opinion, the cortical grey matter of the brain—the Cerebral Hemispheres—have been

proved to contain centres for voluntary motion. The individual convolutions are separate and distinct centres. Electrical irritation of well-defined and limited portions of these convolutions give rise to certain definite movements of the limbs or face, usually of a combined nature. Other new facts of quite a different nature are due to Dr. Parkes of the Army Medical School. He fully expounded, by experiments of his own, the celebrated observations of Fick and Wislicenus, that gave the decisive blow to Liebig's theory which prevailed for so many years—that muscular work is dependent on, and *proportioned* to the destruction of muscular tissue by oxidation, this destruction being represented by the amount of urea formed. His experiments prove that the elimination of urea is *not* dependent on the amount of muscular exercise, but on the amount of nitrogenous food taken —that muscular tissue does not consume itself as a fuel doing work; also that it is the gland cells, especially those of the liver, that we have to look to as the organs of this transformation. Parkes admits with the Swiss physiologists that some muscular tissue is disintegrated through muscular exercise, but it is the wear and tear of the engine through continuous work and not of the fuel consumed which keeps the engine at work. We see the important bearing of these facts in pyrexia. The febrile state involves a large destruction of nitrogen-containing tissues, which are hardly consumed at all in health. Every degree of fever heat, or of heat above 98° 4, implies so much additional destruction of the most important organs of the body, such as the heart and muscles and nerve-centres, as well as corresponding addition to the work of the excreting organs; further—according to the older notions, it was the kidneys that were blamed for the red deposits in the urine. According to our present views, the liver is the organ that should be blamed, the disintegrating tissues being transformed into urea and uric acid by that organ.

Other experiments of Parkes are some with reference to alcohol, which prove that it never increases the temperature, as was formerly supposed; on the contrary, that it slightly diminishes it. He also upset the theory of Lallemand's, that alcohol is not oxidized in the body, but excreted unchanged.

Perhaps some of the most interesting and important results of experimentation on the lower animals are those in connection with tuberculosis. Tuberculosis can be transmitted from mankind to animals, and probably from these back again to the human species. Laeunec considered tubercle a special and peculiar product. In 1865 Villemin announced the production of tuberculosis by inoculation, and thus seemedto establish its specific nature. The researches of Burdon-Sanderson, Wilson Fox, and others prove that the inoculation of many kinds of noxious matter might give rise to tubercle; that tubercle is a result of inflammation, with this addition, that the presence of a special structure impresses on it a special form. These are very important facts for us to bear in mind; more especially when we have it stated on the best authority that fully one-half of the cattle slaughtered die more or less tuberculous. The microscope has demonstrated that these masses are identical in structure and development with tubercle in man. When you remember that the powers of absorption in the infant are very active, and that milk enters into most of their food, you can readily perceive what an important bearing this question of transmissibility may exert.

The researches in connection with the constituents of the blood have resulted in very materially modifying our views especially with respect to the white corpuscle, the most striking peculiarity of which is its marvellous inherent power of spontaneous motion, only quite lately recognized. The constituent molecules of which this apparently insignificant little body is made up, are incessantly dancing hither and thither, and rolling over and over among themselves. It is continually changing its form, protruding now one part and now another of its outer surface, and twisting and contorting itself into all sorts of indescribable shapes. It can be seen insinuating itself into and through the finest slits and pores, by first pushing forward the minutest finger or feeler of its substance into the available chink, and then bringing after the feeler all the rest of the corpuscular mass in the same attenuated way, until the opening is passed, when the corpuscle forthwith expands to its larger dimensions in the less restricted space beyond. The peculiar motion of these little bodies has done much to very materially alter our views on the great subject of inflammation, which underlies so much of pathology.

Thirty years ago Rokitansky taught alteration of the fluids of the body, especially of the blood, to be the cause of most morbid changes. These views for a time prevailed, but only to be superseded by the celebrated cellular pathology of Virchow, who traced all to growth of cells. This theory was supplanted to a great extent by Cohnheim's discovery in 1867, or rather what he considered his discovery, the

migration of the white blood corpuscles. Fortunately, however, for English reputation this was an old English discovery revived. In 1839 Addison discovered and described this emigration in inflammation. Now adays the prevailing theory of inflammation is, that associated with this condition there is migration of the white blood corpuscles and increased activity in the movements of the wandering cells normally present in connective tissue, also, cells which under ordinary circumstances are motionless send out processes and assume all manner of shapes.

Within the last two years, much additional light has been thrown upon the purposes served by serous membranes. Formerly held to have no other function than that of furnishing a smooth and well lubricated surface, enabling parts that are subject to movement to glide easily over each other, they have been demonstrated by Recklinghausen to represent great lymphatic sacs, and to possess a highly complicated structure, and very important relations. Dr. Klein of the Brown Institution, London, has been able to demonstrate that the endothelium of the free surfaces of serous membranes, as the pleura, mediastini, omentum and others, possess other than the flat tesselated epithelium; there is present what he calls "germinating epithelium"—spheroidal cells resembling lymph corpuscles. These lymph cells make their way into the lymphatic system through small openings distributed over the membrane bounded by peculiar cells, which in their general appearance have some resemblance to the stomata seen on the under surface of the leaves of plants. We have thus opened to our view in serous membrane, a lymphatic gland covered with germinating cells which develop into white blood corpuscles ministering to the production and development of blood.

And yet, speaking generally of these white corpuscles, they do not remain in the blood-fluid. They are moved along by the forces which circulate it, until they again enter into the composition of the solid tissues by penetrating the walls of the bloodvessels, when they wander about freely in these tissues in the manner described a few minutes ago. The floating blood cells are really the very cells which once formed the substance of the lymphatic glands, serous membranes, spleen and other organs.

How very different these ideas are from what was taught but a very few years ago!

A very important late discovery is the inhibitory power possessed by certain nerves, or according to some physiologists, inhibitory centres, that is to say, a restraining centre possessed by some, if not by all nerves,—a centre which when excited overrides the motor centre and suspends its influence. The vaso-motor nerves, for instance, formerly considered to possess fibres whose only office was to keep in a state of moderate tonic contraction the smooth muscles of the blood vessels to which they were distributed; recent advances in physiology show that these nerves also possess in part of their course fibres which when brought into activity diminish the vascular tonicity. The vaso-motor nerves present in their course and near their extremities certain ganglia and connected with these ganglia are fibres or according to some physiologists other nerves possessing an inhibitory or restraining power over the generation or discharge of their motor force. If these be excited, the action of the motor ganglia is suspended, and the vessels no longer receiving the force requisite for their contraction, yield to the pressure of the blood and undergo dilatation. A very striking instance of this inhibitory power is the suspension of the ordinary tonic contraction of the blood vessels of the abdominal viscera by irritation of a certain nerve (the "cardiac depresser" of Cyon) which runs from the heart to the medulla. Another instance of this inhibitory influence is the remarkable power which the pneumogastric nerve possesses when stimulated of arresting the heart's action—not in systole, not, as it were, in a state of cramp; but in diastole, that is to say in a state of relaxation.

This, with many other interesting facts in physiology and pathology, you will have practically demonstrated to you during the session.

At the present day, perhaps no single subject is engaging the attention of scientific Medical Men as much as the part played in disease by that low vegetable organism called bacterium, and described according to the species under the various names of Micrococcus or Microzymes, Spirillum, Vibrio, Bacillus and Spirochæta. That these organisms exist and are sometimes found in the blood, all pathologists seem to agree, but as to how they get there, there seems to be a great divergence of opinion. Some able authorities say they arise *de novo*, that they are actual pathological products, being engendered within the body; while others, equally able, say they do not originate from the normal tissues but are derived from without They further say that bacteria exist in the exudative fluid of all acute infective inflammations, and that they may also be found in the blood of the infected animals. This contagious nature of bacteria is by no means settled. Nevertheless it is now generally acknowledged by pathologists that a few

specific diseases are associated with specific forms of these vegetable organisms. At present there are but four affections in which these specific forms are known to exist; they are small-pox, sheep-pox, splenic fever, and relapsing fever. In small-pox, for instance, the fungus consists of minute spheroidal corpuscles, which rapidly develope by fission into groups, chains, &c. The other diseases I have just mentioned are each characterized by special forms of fungus.

Besides these diseases associated with specific forms of vegetable life, there are others depending upon the infiltration of the tissues with septic microphytes, or, as they are sometimes called, micrococci, one of the forms of bacteria just referred to. Two are at present known—diphtheria and erysipelas; the infiltration with these low forms of vegetable life being the starting point of the diseases.

Experiments such as inoculating the cornea by puncturing it with a needle charged with diphtheritic material has resulted in the infiltration of the lymphatic canalicular system with myriads of these low organisms. Their discovery in erysipelas is of but very recent date—within the last few months. Large numbers of bacteria have been found in the fluids of the swollen parts.

It is the microscope chiefly that we are undebted to for these recent discoveries. No single instrument has done as much for Medicine as it. In connection with it, much new and important information has been afforded us bythe use of the hot stage, by means of which objects can be examined under conditions more nearly approaching those occurring in the human body. It has helped very materially to enlighten us as to the amœhoid movement of the white corpuscles of the blood and the wandering cells of the connective tissue. The moist chamber, the use of immersion lenses, and the application of electricity have all been of immeasurable benefit. Before the more general use of the microscope, our knowledge of the diseases of the nervous system was very meagre indeed. Through it insanity is no longer a disease of the mind, but of the brain. It is only since Bright's discovery that the processes of degeneration have been studied. Now, through the microscope, the study of these processes is one of the most important in Scientific Medicine. The changes occurring in inflammation have been made out chiefly through this instrument.

Every day the knowledge of the laws of the various branches of physics is becoming of increasing importance in Medicine. Most of the recent advances in physiology and pathology have been the result of using the wonderfully ingenious apparatus invented by Marey, Ludwig, DuBois, Reymond, Helmholtz and others—cylinders revolving with great rapidity and perfectly regular movement; levers adapted so as to measure the minutest movements; chronographs to record periods of time so short, that they are measured by the almost imperceptible vibration of the tuning fork; mechanical apparatus with the aid of which artificial respiration can be maintained for hours. All of which instruments you will all have the opportunity of seeing at work in the physiological laboratory in connection with this College.

In fact it may be said that every improvement in the delicacy and accuracy of our instruments has been, as also it will surely hereafter be, followed by a corresponding advance in our knowledge of the functions of the body. These functions have one by one been investigated and explored, and in consequence the problems of life are step by step becoming solved. "Vital" phenomena are disappearing with the discovery of new facts, founded chiefly on our increased knowledge of the laws of physics.

The application of these laws are readily seen in some of the better understood functions and organs of the body. The heart of man is constructed upon the recognized rules of hydraulics, and with its great tubes is furnished with common mechanical contrivances, valves. The eye is arranged on the most refined principles of optics: its cornea and humors and lens properly conveying the rays to form an image; its iris, like the diaphragm of a telescope or microscope, shutting out stray light, and regulating the quantity admitted. The ear is furnished with means of dealing with the three characteristics of sound; its tympanum for intensity, its cochlea for pitch, its semicircular canals for quality. Atmospheric pressure on the descent of the diaphragm fills the air passages with air. Many other facts of a like nature might be mentioned, all tending to point in one direction, the operation of law.

The novelties in the other branches of the profession I will leave to be dealt with on a future occasion by some other professor, merely mentioning three or four of the more important. Perhaps the most important is the introduction of bloodless surgery by Esmarch, which very much facilitates operative interference. Pneumatic aspiration has been of signal service in a great variety of cases, such as hydrothorax, retention of urine, strangulated hernia and many other diseases. The galvanic cautery and knife has also done much to simplify operations such as the removal of the tongue, naevoid growths, &c.

I have yet to mention one instrument which is extensively used of late years, and without which no medical man should attempt to practice his profession—I refer to the clinical thermometer. The use of this little instrument has been more instrumental than anything else in placing the treatment of fever on a sounder basis. Typhoid fever especially, it is impossible to treat rationally without the use of the thermometer. This I assert, not merely as my opinion but as the opinion of the highest authorities everywhere.

When I tell you that most of the facts I have now brought under your notice have been brought to light only within the last eight or ten years, some indeed later still, you may be able to form a fair idea of what you are to prepare for in order to be first class physicians. And yet these are but a very small proportion of new acquisitions to Physiology and Pathology, as well as of what previously appeared to be well established facts ruthlessly upset, and upset as I have just mentioned within the last eight or ten years. Indeed it is within the lifetime of some here present—not yet fifty years since Richard Bright recognized the relationship between kidney disease and some forms of dropsies. Then Laennec's application of the ear to discover the normal and abnormal action of the heart and lungs had not yet completely impressed medical practice.

What a chaotic state medicine must have been in previous to this period!

It is quite certain from the impulse which the last few years has given to the progress of medicine, that it will continue to advance quite as rapidly. Consequently your mind must be trained so as to be able to appreciate new facts which each successive year brings into notice. This can be done only by studying in a methodical manner, and with a scientific spirit. The physician is not now the great medicine man he used to be, whose skill was measured by the quantity of physic he could persuade his patients to swallow. At the present day too many I fear for the good of their patients go too far in the opposite direction, relying on "Nature," requiring much faith in the physician on the part of the patient. And yet what a power this faith in the physician is, and he who can command it may throw much of his physic to the dogs. Nevertheless, faith stops short of actual bodily derangement; it will not cut short a fever, nor set to rights the lung of a consumptive patient, nor give motion to the paralyzed arm. In such cases where destruction of the vital parts has ensued, the mere mockery and snare of the homœopathic treatment is at once apparent. And here the specific value of certain drugs discovered during the last half century steps in to restore the balance to the orthodox practitioner. Among these may be found first and foremost cod liver oil that has stayed the hand of the destroyer in many a patient that would otherwise have succumbed to pulmonary disease. Iodine, gallic acid and hydrocyanic acid have proved of great value; electricity, a most potent agent in rousing the vital powers of the system. In cases where the heart's action has stopped, the constant current has once more set the machine of life going again. By hydrate of chloral, on the other hand, overaction of the nervous system is met and checked, and all the evils of opium—sickness, constipation and headache—are avoided.

As well as these actual additions to the agents by which the physician fights disease we have now a much more effective and scientific method of applying them. The modern discovery of the alkaloids or the active medicinal principles of our vegetable materia medica is very important. Instead of coarse bark, Science now presents us with the elegant quinine. Instead of the nauseating dose of jalap, an infinitesimal dose of jalapine is more effectual. And morphia with a drop seals up our senses when the larger dose of opium defeated its object by refusing to remain upon the stomach. Even the mode of administering this and many other powerful drugs is greatly improved by the subcutaneous injection.

A few words with respect to Hospital attendance. The Hospital is the practical laboratory of the Sciences of Medicine and Surgery. My personal advice to you in that matter is to begin it at once; you cannot commence too soon. Others, I know, will differ with me in that respect. I should advise each of you to attend longer than the statutory period of one year. Those of you whose home will be in the country may never be able to come again. The loss or neglect of it now you will never cease bitterly to lament: for really, it is the most important part of your medical training, and yet of no use without your teaching here.

It is in the ward of an hospital that you will see living examples of the various affections which are treated of within these walls. There you will learn the practical application of the principles of diagnosis. You will also be able to observe the manner in which disease or accident becomes amenable to treatment or baffles the skill of the physician or surgeon; and let me tell you that if you wish to become successful practitioners of medicine, you must begin early to observe the phenomena of

disease, to familiarize yourselves with its various aspects, and to learn the manner in which the examination of a patient should be conducted.

But, gentlemen, there is a most important method of studying disease which can be learned as well in your own domicile—one which, I fear, is altogether too much overlooked. I refer to making yourselves familiar with the physical signs of health. You must accustom your ears to the healthy sounds of the heart and lungs. Your eyes must be taught the healthy appearance and shape of the body generally, as well as of the deeper seated parts, such as the fundus of the eye, the larynx. Your fingers also must be educated to indicate the healthy limits of the healthy organs.

You must fully make up your mind to work hard, and to do so unremittingly. You must concentrate all your attention on the profession you have chosen. Look neither to the right nor to the left, but resolutely determine to succeed. To do that is to secure success. In order to be successful you must have an object in view. Let that object be the foremost position in the ranks. You cannot all be field marshals, but some of you can, and it is by hard work. But in order to work hard you must avoid the many temptations of a city life. Plutarch in his life of Pericles says: "There was "in the whole city but one street in which Pericles "was ever seen, the street which led to the market "place and to the council house. He declined all "invitations to banquets, and all gay assemblies and "company. During the whole period of his admin- "istration, he never dined at the table of a friend."

Now I do not advise you to keep strictly to the streets leading from your residence to the College or Hospital, for I know very well you would not take my advice in that respect; but I do advise you to refrain from all public amusements during the ten weeks previous to your Christmas holidays as well as the ten weeks after—if you do not you will lose your field marshalship.

Before I finish I should like to impress upon each of you the important responsibility you incur in becoming students of this College. Remember that you are alumni of a Medical College which is yet, as far as age is concerned, in its infancy. At this infant period, every student quite as much as every professor whose name is enrolled on the college list are the subjects of criticism and analysis as is usual in the infancy of all institutions. For that reason names now on the rolls in years yet to come will be histrical. You gentlemen will be important actors in the history of Bishop's College. Strive also to be equally important in the pages of the History of Medicine. Do not act on the principle that the successful surgeons and physicians are giants with six fingers and six toes—irregular sports of nature. The great man whatever may be his calling or in whatever sphere he may move is the normal man. The average man is not the normal man. He certainly cannot be the being of whom Shakespeare says:

"What a piece of work is man! How noble in "reason! How infinite in faculties! in form and "moving how express and admirable! in action how "like an angel! in apprehension how like a God! "the beauty of the world! the paragon of animals."

Gentlemen, act so that this soliloquy may be applicable on observing each of you, and if you do, you may rest assured that Bishop's College will always be proud of you.

Ophalmic Cases, by Stephen Dodge, M.D., of Halifax, Nova Scotia. Read before the Canadian Medical Association, Aug. 4th, 1875.

Mr. President:

I was not aware until a day or two since that I was expected to prepare anything for this Meeting. However, in order to give variety to the subjects considered, I have selected from my note-book a few cases that may prove of general interest, avoiding in the selection such cases as involve the minutiæ of ophthalmology. In adopting this course I believe the object of this Society will be more fully realized than in the consideration of questions of a theoritical or abstract nature in any department of our profession.

The first case which I shall relate is one of Exophthalmos with the existence of a sinus at the orbital border of the superior maxillary bone, corresponding to a point midway between the outer and the inner canthus. James H——, aged 22 years, received an injury to the left eye in December, 1873. Consulted me on June 4th, 1875. Says a splinter of wood was projected from a circular saw, while he was engaged in a saw mill, and struck him on the brow just above and near the inner corner of the eye. The skin was not broken, but the eye rapidly became red and the lids swollen so that he was unable to see for 3 months, the lids covering the eye completely. When the swelling began to subside, so that he could raise the upper lid with his hand, enough to slightly uncover the eye, he could see but very little. During all this time he suffered a great deal of pain, and he was told the eye projected beyond the other. After about 4 months from the time of receiving

the injury, blood and matter discharged very freely through the nostril and mouth. At first the discharge consisted chiefly of blood. This recurred at intervals of a few days, the quantity of blood gradually diminishing and that of pus increasing. After about 2 weeks the total discharge gradually diminished, until finally after about 4 weeks, as nearly as he can recollect, it ceased, with the exception of an occasional discharge now and then of a small quantity of matter. About this time the swelling of the lids began to subside, yet the projection of the globe slowly increased for about 8 weeks. The eye was very sensitive to light, and the movements of the globe very painful and limited in extent. There now appeared below the eye a point of tenderness, which soon discharged matter very freely, daily for a few weeks, and after a short time, up to the present, at intervals of about a fortnight.

At present the eye-ball projects considerably, nearly to the level of the brow, and is displaced downwards, so that the pupil occupies a lower level than that of the other eye. The upper lid is drooping, swollen a little and coursed by enlarged vessels. The cellular tissue above the globe, especially towards the inner corner, is thickened; the eye itself sensitive to light. Vision 20-40 Reads No. 3 J. Movements laterally nearly equal to the other eye; but upwards, motion is very much restrained and painful, especially across the brow. The lower lid is drawn downwards from adhesion of the integument and connective tissue to the superior maxillary bone at the orbital border where the fistulous opening exists. On pressing upwards with the forefinger beneath the orbital border of the frontal bone and over the frontal sinus there is very decided tenderness, not from pressure upon the soft parts but when it is made upon the orbital plate of the frontal bone. The probe enters the fistulous opening about an inch directly backwards, when it comes in contact with the globe, and cannot be passed beyond. Warm water injected through the fistulous passage always come out through the nostril of the corresponding side. In its passage he always said he felt it beneath the brow, in the sinus. The tension of the globe is above the normal. On testing for double images they were found to be 2′apart when the light was placed 10′distant. The ophthalmoscope shows a slight fulness of the veins of the disc.

That there was originally an abscess of the frontal sinus emptying itself through the middle meatus of the ethmoid bone into the nasal cavity, I think there can be little doubt. The persistent tenderness upon pressure of the orbital plate of the frontal bone shows that periosteal inflammation still exists, and that it is at this spot where destruction has occured of the thin bony partition between the orbital cavity and the frontal sinus. Over the orbital part of the ethmoid *no* tenderness is produced upon pressure.

With a small hard rubber syringe, having a long fine nozzle, such as is used by dentists, I daily injected warm water with a few drops of tincture iodine in it, increasing the quantityof the latter from day to day. Internally I gave iodide potassium 5 grs ter die. On the 14th June the eyes were tested for double images which were now found to be 11′apart when the candle was placed 10′ distant. The mobility upwards of the eye is increased and is without pain. Sensitiveness to light very much diminished. The projection of the globe remains about the same. He was now obliged to leave for home, but he was advised to continue the injections and the medicine. I have heard from him twice since. The last time he writes that he has been at work about a month and feels better than he has been for some time. The discharge from the fistulous opening is less than it was, and the two lights are becoming still nearer, and that the eye does not project so much as it did.

Since this case came under my care I have received he report of one, very similar in many respects, that was under the care of Dr Noyes of N. Y. In his case, which was under observation for more than two years, the disease began as a chronic orbital periostitis, resulting in an abscess which produced erosion of the thin bony wall covering the frontal sinus. The Dr. passed a knife down to the depth of about $\frac{3}{4}$ of an inch into the cellular tissue at the upper and inner angle of the orbit, and pus was discharged for a long time, leaving a sinus into which he succeeded in passing a probe into the opening in the bony wall of the orbit. He was able to inject water into the frontal sinus, but it did not pass into the nasal cavity. He succeeded in arresting the discharge with daily injections of water diluted at first with tincture myrrh, and then, with water to which a little chromic acid was added and finally the fistula healed.

The second case is one not so rare among those engaged in seeing cases of eye disease: viz., detachment of the retina—a disease which more especially occurs among those who are short-sighted. Andrew C., aged 60 years. Sight always good, except occasionally he has what he calls a "nervous glare" coming over his sight. Always able to read

without glasses and by lamp light. Subject to a nervous headache, but never had what he calls real pain in his head. Troubled with flatulence which causes dizziness. Occupation that of a shoemaker, yet for the last 10 years he has been engaged in an out-of-doors traffic. Drank very hard formerly, and for a long time, but for four months previous to his impairment of sight, which occurred a fortnight ago, he has not drank any. Never smoked. About the time his sight failed, he was very much oppressed in his nervous system, scarcely able to raise himself, pains and stiffness in his limbs. The sight of the left eye was lost suddenly and entirely without any perception of light, while that of the right has also failed lately. Has had some returning sight in the left eye, so that he can see his hand moving before him. Ophthalmoscopic examination shows detachment of the retina over a very large part of its surface. In the region of the macula there is also detachment. In some parts of the fundus the blue wavy appearance caused by the folds into which the retina is thrown is very beautifully seen in the upright image. There is also slight opacity in the centre of the vitreous. Vision was limited to a very small space at the extreme temporal side of the visual field. The symptom of metamorphopsia was present, and those sudden fluctuations in vision caused by parts of the detached retina floating across the line of sight.

Now, I do not present this case as containing anything peculiar when compared with other cases of the same disease. He was advised to go home and leave the eye alone, as it could not be helped, and to take especial care of the other. And it is here that I wish to say a word: You have all heard, no doubt, of those "eye-cups" that are so largely advertised throughout the length and breadth of the country. New York appears to be the great centre from which they emanate and, strange to say, if you were to visit that city you will hear nothing of these men who advertise them nor of their fame. Should you have any disease of the eye and ask for some person of well-known skill and reputation you will not be referred to Dr. So and-so of eye-cup notoriety. Further, their address, as indicated by their advertise ments, is not where the respectable and skilful medical men of the city live, but where no N. Y. man would expect to find a first-class medical man. Again, let us consider the nature of these so-called eye-cups. Here is one that was given me as a fee by a poor woman who became suddenly and completely blind in both eyes within the space of a fortnight from amaurosis. It acts upon the principle of the cupping glass,—in fact an exactly similar apparatus, though a little larger is made by the Surgical Instrument makers for a cupping glass, and costs about a dollar, but these sell for about 8 dollars a pair. Now the remarkable thing about this contrivance is that it is recommended for conditions the very opposite of each other, and, in fact, for almost all diseases to which the eye is liable. It so happens that I have met with several cases of detachment of the retina in which this affair has been used. One was a young man from the country whom I saw last summer. He had atrophy of the optic nerve in one eye and detachment of the retina in the other; sight so bad that he was obliged to be led. He was applying the eye-cups to both eyes and several times a day. I recollect another case of a man about 60 years of age, who was a farmer. Had retinal detachment in one eye. I told him to go home, and be thankful that he had one eye left and take good care of it. He was, however, persuaded to get eye-cups and use them so as to *preserve* the sight in the other. But the poor man after some months lost the sight of this, too, and this time, to my satisfaction, did not come to me but visited my friend Dr. Agnew of New York, who, I understood, found a state of disease in this eye similar to that of the other. Now I think you will agree with me that if such a contrivance can exercise any influence upon the interior of the eye at all, such a disease was the worst possible in which to use it, and I have reported this last case more especially to draw the attention of medical men in general to this contrivance and urge upon them to discourage its use. Putting the case in the mildest form, if it does no harm, it often leads on the part of the patient to the loss of most valuable time and opportunities.

The next case is one of hypermetropia with astigmatism: Charles D—, 15 yrs old. His father and mother say that they have noticed for some time that he had some difficulty about his sight. His mother said he often fell down stairs; and did not know the cause of it. But when he began to read she was then satisfied his sight was defective. He was obliged to hold the book very near him and to sit as closely to the window as possible. His mother said she often placed him upon the window ledge to get a strong and bright light. His father consulted an optician in London about him, and purchased a pair of double concave glasses, as it was supposed to be a case of short-sightedness. But with these he was unable to read at all. Latterly he has been wearing a pair of Lazarus and Morris' glasses. Without these he cannot read at all, and even with

them he is obliged to hold the book so near that he puts his accommodation to the utmost stretch. However his sight has improved since he began to wear them. There is a tendency to convergent strabismus, which increases under accommodation.

Sight L. 20-70; S. R 17–200 Reads No 3 J at 4½ "inches." With the weakest concave glass he is unable to read at all, so that the positive part of the relative accommodation is nil, the whole reserve power being called into action in reading. Hence it is readily seen that Vision would be painful if kept up even for a short time. The fundus of both eyes congested and discs hyperæmic, and in the L. E. near a branch of the retinal vein, which is next the nose, there is a small spot where hemorrhage has formerly occurred, and around its border there is now pigment.

Applied a 4 grs sol. atropine to the L. E. Next morning found there was hypermetropia 1–7 with convex astigmatic glass 1–16, axis perpendicular. With this combination he could read ordinary type quite readily at 7" distance. His parents were very anxious that he should attend to his studies, as up to this period his mother had taught him orally for the most part. In the meantime I ordered him a pair of double convex glasses, 9" focus, and he left to attend the academy at Wolfville. In about a month he returned at my request, his S. now for the R. E. was nearly 20–50 and for the L. 20–100. He now read No. 1 J. easily at 7." June 4th, 1875, says he has been able to continue his studies during the winter without any trouble from his eyes, though he was obliged to study hard in order to make up for lost time, and qualify for matriculation at college in the spring. With his glasses his sight is the same as at the last visit, but with his Hypermetropia and astigmatism corrected his vision for the R. E. 20-50 and for the L. 20-70. I then ordered him a pair of glasses to fully correct his refraction.

Now I do not report this case because of its rarity, as such cases are often met with. But it represents a *class* that constitute a large proportion of eye patients. In practice in a large city it has been computed that about 50 per cent of eye cases belong to errors of refraction including accommodation and mobility. Their importance at once becomes manifest, and, from a scientific point of view, it is still greater, as the treatment of these defects is allied more closely to the exact sciences than is any other branch of our profession. For their correction we call to our aid the science of optics. Yet it must not be supposed that all which is necessary for a deficiency or excess of refractive power is simply to prescribe a plus or minus glass,—collateral facts have to be considered. Again treatment in order to be successful, preserve the sight and relieve pain in the visual act, must be commenced early in life, before secondary changes have occurred in the interior of the eye.

Remarks on Climatology, by Le Baron Botsford, M.D., of St. John, N.B., President of the Canadian Medical Association, read before the meeting of the Association held in Halifax, August 4th, 1875.

Climate holds a prominent place among the many hygienic influences which affect the well-being of men, and for this reason the Association has appointed a Committee to report upon it. Yet, considered by itself, however intimate our knowledge of the conditions which surround us, the geological formation, the geographical position, the prevalent winds and annual precipitation, the temperature and moisture, all these will not avail, and we shall be unable to estimate their effect upon the general health and longevity of a people, unless accompanied by statistics, upon other points. We require to have a periodical census, to know the immigration, as well as the emigration, the births and deaths, the prevalent diseases, those which are contagious, those which are epidemic and indigenous, all these are necessary.

For a census, without returns of those who come or go from the Province, would not give us the natural increase nor the correct death-rate and without all these data we cannot ascertain whether a locality or province is healthy.

Bay of Fundy and the St. Lawrence, and these approximate N. E. & S. W. The Kennebeasis and the Upper Petitcodiac occupy the trough formed by the two southern granitic Ridges. The Washademoire, New Canaan, and the Bucouche drain another section. The Grand Lake, Salmon River and Richebucto another, the S.W. Mirimichi, and the Nashwak, another; the Nepisiquit, the Tobique, and Restook another. The Upper St. John runs with the strike of the rocks for 100 miles before it enters the Province, after which the river runs diagonally across the strike, receiving its numerous tributaries from the N. E. and S. W.

The Carboniferous basin, occupying over 6000 square miles, has a base line of 150 miles, extending from the Bay Verte to the Nepisiquit when the Carboniferous strata terminate. The apex of the triangle is at the Oromocto Lake. The basin occupies part of Gloucester, York, Sunbury, Queens, Kings

New Brunswick lies between the 45 and 48° degrees of longitude and extends over nearly four degrees of longitude. Its western side borders on the state of Maine, its northern boundary is formed by the high lands and the Bay Chaleur; its eastern is washed by the Gulf of St. Lawrence, whose water sweep in a curve formed by Nova Scotia and Cape Breton which stretch some degrees toward the N.E.—and along its southern border lies the Bay of Fundy.

The geological character of the Province shews the surface to be ridged, and that the ridges run in a north-easterly and south-westerly direction. Besides the minor elevations there are others of importance; the chief is the one skirting its northern border. From 27 points of observation the average height of these high lands is 1550 feet, whilst several of the mountains are over 2000 feet, and one 2500 above the level of the sea. The next is a central granitic belt, extending from the Nepisiquit near Bathurst across the County of York to the American boundary, 160 miles, to the Cheputneticook lakes, having a width varying from one to twenty miles. The southern granitic belt on the coast of Maine divides as it reaches the Provincial boundary. One range crosses the St. John river at Granite quarrys and extends to Butternut Ridge; the other passe to the north of Magaguadavic Village, then close by the city of St. John, and terminates at Shepody mountain in Albert. These two ranges occupy a large part of Charlotte, Kings, Queens, St. John, Albert, and Westmorland. The southern branch, running between the Bay of Fundy and the valley of the Kennebecasis at one point is over 1000 feet above the sea-level.

The direction of all these ranges and bridges, which to a great extent determine the courses of the rivers, which drain the Province is the same as that of the largely, all Westmorland, Kent and Northumberland and part of Albert. The base line runs over several ridges in its course, but the highest does not exceed 280 feet above the sea-level. The geographical features of a country are chiefly dependent upon its geological structure, and the numerous streams and rivers which are the result of the conformation, and intersect the Province, make New Brunswick a remarkably well-watered country.

The general temperature varies but little from that of the other Provinces, but there are local modifications dependent upon the waters of the Gulf upon the east coast and of the Bay of Fundy on the southern, and also from the prevalence of southerly winds during the summer months. These, according to Murdock, prevail from the east to south-west for 74 days of the 92 of the summer season. The southern and south-west coast of Nova Scotia must be similarly affected. As Nova Scotia and Cape Breton extend some degrees in a north easterly direction they protect the eastern coast of New Brunswick from the chilling fogs which accompany the S.E. winds, and the air is so tempered that the inlets and bays of the Gulf coast afford the most refreshing retreats from the heats of the interior and must soon become the resort of those who wish to avoid for the summer months the enervating heats of southern cities. During the winter I am not aware that the degree of cold is less than it is in the interior, which has a monthly mean of nearly 4 degrees lower than the coast of the Bay of Fundy.

The maximum of cold at St. John was 17°—at Fredericton it has reached 38°—and ten degrees between the two places is not unfrequent. During the summer the mean difference is about 3° to 4° and 5°, the interior being so much warmer, but during the winter months the latter is colder than the coast by 7° mean. The following table,* though imperfect and meagre, gives some meteorological data to determine the difference which prevails in different parts of the Province.

The south coast has a greater amount of moisture than the interior, owing to the prevalence of the southerly winds in summer, which come loaded from the Gulf stream. The temperature of that body of water off the Southern States, from the Missisippi up to Cape Hatteras, is above 80° from June to October—Above 7° during January, February and March, and above 75° in April, May, November and December, and the difference of temperature between the waters of the Gulf Stream and the Arctic current between that stream and the Coast varies with the seasons in the spring months being as much as 30 degrees, at other seasons from 15 to 23 degrees, From observations furnished by Dr. Fisher of the navy, the temperature of the inner belt of cold water running down the American coast is 56 degrees. The winds which cross the Gulf Stream become saturated with the evaporation, from the surface, then, coming into contact with the Arctic flow down the coast, are cooled down. Losing their capacity for moisture, this is carried along in the form of fog until it strikes the Atlantic coast, thence along the Bay of Fundy, the western and southern shores of Nova Scotia, and abounds on the banks of Newfoundland. The temperature of the air during the

* See next page.

summer months when fog prevails varies but a degree or two from 56°, corresponding with the temperature of water according to Fisher; yet in Spring the fog will appear when the thermometer ranges below that point. The effect upon the vegetation is very decided, and plants and trees along the coast are stunted in their growth. The spruce have a marked contrast by their close fibre to those of the interior and several species of sub-Arctic plants, which are to be found along the shores, disappear in the interior where the greater heat is incompatible with their existence. The same causes must produce some effect upon the animal economy, varying according to temperaments, in many cases, no doubt, beneficial, in others the reverse, to ascertain what it may be can only be done by vital statistics.

In the meantime we can get a good deal of information from the Army Reports of Great Britain and the United States. Dr. Forry states that the mean temperature on the Coast and inland seas varies from that of places distant from them. From New York to Maine the mean in winter being 6 degrees higher than at points remote from the ocean or inland seas. During spring the mean is lower by 4 degrees, in summer by 8·7 degrees and in autumn by 0·4 of a degree. The mean temperature of the winter and summer differs on the Coast being 38.6, at points in the interior 53·3, on the lakes being 43°, at places remote from them 55·8. From Forry's data, it appears that the development of phthisis on the Coast and the Lakes is 8·4 to 5·1 degrees at posts remote from them. The British Army reports give the relative development of phthisis: Great Britain 6·5, Canada 6·5, Bermuda 9, West Indies 13. The description of the seasons by Forry in the northern section from New York north-easterly to Bombay will answer for this in New Brunswick—he says they change more rapidly in the interior. On the shore the temperature was more equal, the changes gradual, the air more moist. We ought to have consequently a large amount of phthisical cases on our southern border.

The mortality per 1000 for nine years ending 1867 from disease was:

Home service.....8·53
Canada .....7·60
Nova Scotia and New Brunswick.....6·10

Remarking upon this Parkes says: these numbers show what indeed is apparent in all the records, that Canada is a very healthy Station."

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Win-ter.	Sp'g.	Summer.	Aut'n	An'l Mean.	Rain, &c, inches.
Mean Monthly, St. John,	20o.2	22·3	23.5	38.3	49.2	55.5	60.6	60.9	55.2	47.8	38.01	23.7	.....	.....	.....	.....	41.8	50.5;
do Fredericton.	13o.5	15·7	24.8	36.9	50.4	60o	66.6	63.3	57.1	45.6	32.3	15.1	.....	.....	.....	.....	42.2	.....
do Toronto.	23.7	22.8	30o	41o	51.3	61.2	67o	66o	57.9	45o	36.6	25.9	.....	.....	.....	.....	44.3	31
Difference between St. John and Fredericton.....	6.6	6.6	8.7	1.4	1.2	4.5	6o	2.4	1.9	2.2	5.8	9.9	.....	.....	.....	.....	.....	.....
do St John and Toronto.	3.5	5	1.5	2.7	2.1	5.7	6.4	5o	2.7	2 2	1.5	2.8	.....	.....	.....	.....	.....	.....
No. days W. to N.E. winds.	23.2	18	19.2	14.7	8.7	6	2.7	9.2	9.3	13.7	18.3	24.2	67	44	18	41	.....	.....
No. days E. to S.W. do.	7.7	10.2	11.7	15.2	22.2	24	28.2	21.7	20.7	17.2	11.7	6.2	21	49	74	49	.....	.....

Quebec.....	41o	36 to 44
Montreal.....	44.6	36 to 44
Kingston.....	45.8	.....

Prof. Guyot. Amount of Vapor contained in a Cubic foot.

Temperature.	Vapour in grains.
40	2.8
45	3.4
50	4.0
55	4.8
56	5.0
57	5.2
60	5.7
65	7.9
70	9.3
75	10.9
80	

Progress of Medical Science.

A LOST ART OF MEDICINE.

An Address delivered before the American Medica Association by S. D. Gross, M.D.

We here reproduce in full, with the exception of some preliminary opening matter, the address of Prof. Gross before the American Medical Association. After contrasting the present disuse of venesection with the universal employment of it in his boyhood, and asserting that bleeding is emphatically one of the lost arts, the venerable Professor continued as follows:

How this extraordinary change in sentiment and practice was brought about, by what influence,

agency, authority, philosophy, logic, or mode of reasoning, is a matter worthy of brief inquiry. The causes, so far as they are patent to my mind, are mainly four: First, the influence or tyranny of authority, soon passing into more or less extensive fashion; secondly, the indiscriminate employment of the lancet in the days of what has been termed, not inappropriately, the Sangrado practice; thirdly, a more accurate knowledge of the nature and seat of diseases; and, lastly, the use of certain remedies unknown a third century ago, but now of general, if not universal, resort, in the treatment of inflammatory affections.

1. The influence of authority annually slays millions of human beings. Its pernicious effects upon human life, in its individual and collective relations are felt in every direction; in the construction of our dwellings, in our habits and occupations, in our dress, in our social entertainments, in our amusements, in our food and drink, and in a thousand other ways. Of its malign influence in our profession examples daily fall under our observation, as the result of pernicious doctrines and practices. Superstition and fanaticism have kept the world in a state of intellectual bondage from the earliest records of society down to the present moment. The spiritualism of the present day has its counterpart in the witchcraft of three centuries ago, fortunately without the hangman's halter. Every age has its peculiar absurdities, characteristic of the minds of some of its people. Mesmerism deluded thousands of persons. The metallic tractors of Perkins enjoyed for a time a world-wide notoriety. Homœopathy is still at work in deluding the world. Clairvoyance has many devout adherents. Berkeley, in the middle of the last century, effected many wonderful cures with the aid of his tar-water. For upwards of one hundred years the lancet enjoyed unlimited sway. Everbody was bled. Surgeons, during the last dozen years, have had carbolic acid on the brain as a dressing in wounds and other injuries. Broussais, Cookeism, and the blue pill of Abernethy, each had a reign of at least a quarter of a century. For an equally long period the medical mind of Italy was agitated by the tartar-emetic treatment of Rasori and his followers. Thompsonianism, or the lobelia and cayenne-pepper treatment, is not yet entirely extinct on this continent, although its days were numbered long ago. For nearly a third of a century the doctrine of a change of type in disease has tyrannized over the minds of medical men, and exerted a controlling influence upon their practice. Of all these delusions, the latter, often called Toddism, after Dr. Todd, its author, has exercised the most pervasive and baneful effects upon civilized society. Ensconcing itself behind a false position, it has literally enslaved the medical world, entrapping alike the wise and the foolish, and sweeping over human life with a force equal to that of the fiercest and most destructive hurricane. Unlike the doctrine of sthenic and asthenic diseases of Dr. John Brown, who in the latter part of the last century enjoyed such a wide celebrity as a medical reformer, it assumes that all maladies are of a low type, imperatively demanding the use of stimulants for their successful management. It countenances no half-way measures. The patient must be upheld by stimulants or he must die. Now and then perhaps a few leeches may be tolerated, but only in very exceptional cases, where there is not too much depression of the vital powers. Who and what Dr. Todd, the author of this system of medicine, was, it would be needless to inquire. Everybody knows that he was one of the ablest writers and clinical teachers whom this century has produced; but that he was a profound thinker, I doubt; and it is well to bear in mind that the class of patients at King's College Hospital, London, of which he had charge, were persons in the lower walks of life, broken down by overwork, privation, and various forms of intemperance, and therefore unable to bear depletory remedies. Such patients as Dr. Todd had are to be found in the wards of every eleemosynary institution in Europe and in this country. It was from a study of this class of cases that this famous man in an evil hour, deduced the absurd doctrine of type in disease. I say absurd, for if there was ever anything absurd, this doctrine most assuredly deserves that name. Who, that has any knowledge of the human constitution as it is daily met with in our intercourse with our fellow-citizens, in the various pursuits of life, will lend credence to such an idea,—I had almost said to such a slander? I assert, without the fear of successful contradiction, that man's power of endurance in health and disease is not one particle less than it was fifty years ago, when depletory measures of every form were the order of the day; when, in fact, it would have been deemed derogatory to a physician's character to let a patient die without the aid of such remedies. The exploits performed during our late terrible war alone are sufficient to settle this question. Never, since man battled with man for national supremacy, were there so many rapid, laborious, and brilliant marches executed in so short a time as there were on both sides of the line. The exploits of the soldiers of Alexander, Hannibal, Cæsar, and Bonaparte fade into comparative insignificance by the side of those of some of our generals. Our laborers, farmers, miners, hewers of wood, carriers of water, mechanics, artisans, and professional men, evince no evidence of decline in muscular power or mental endurance. Our sailors are as hardy a race of men as they were in the days of Sir Francis Drake or Captain Cook.

If we look at the habits and modes of life of the people of the present day, it will be found, if I do not greatly err, that they do not differ, in any essential manner, from those of a third of a century ago. The different classes of men and women, in city and in country, live very much as they did in my boyhood, using the same kind of food and drink, pursuing similar occupations and amusements, and exercising as much control over their appetites and passions generally as their fathers and mothers. If there are any differences in any of these particulars, they are certainly not well marked, nor so radical in their character as to diminish, in any material degree, the power of endurance of our people in

health and disease. On the other hand, owing to the more extensive cultivation of our soil, the destruction of our forests, the draining of our marshes, and the greater attention paid to the study of hygiene, our people, especially those in the rural districts, are much more exempt from the diseases caused by the noxious exhalations from the earth's surface, so prevalent in newly-settled countries, and so pernicious in their effects upon the constitution, than they were in the early days of my white and bald-headed contemporaries.

Do not men during accidents and surgical operaitons, and women during parturition, often lose enormous quantities of blood, and yet frequently make excellent recoveries? In epistaxis, hæmoptysis, and hæmatemesis, this fluid is often largely poured out, and yet it is seldom that we hear of a person dying from the effects of its loss.

In the face of such facts as these, and a hundred others that might be adduced, if time permitted, the doctrine of a change of type in disease must fall to the ground as utterly untenable.

The influence of fashion is not limited to our profession. We all recollect how the crinoline of the French Empress, invented to conceal a condition of which most ladies are so proud, enslaved the female mind, until every woman, married and single, considered it as an indispensable article of dress. A sofa, however spacious, was hardly long enough for a woman thus arrayed to sit upon. How the fashion has changed within the last six or eight years is familiar to everybody. Now the dress is so narrow as to show the outline of the person, and compel the greatest care in progressing lest the fair wearer should trip and tear her garments. Even diseases occasionally become fashionably. When it became known that Louis XIV. was laboring under anal fistula, the disgusting malady became at once the fashionable ailment of his debauched court. The use of enemata was cultivated as one of the fine arts in France in the time of Molière, who lashed the faculty without mercy for its follies and extravagances.

Second.—The indiscriminate employment of the lancet in former days did much to bring blood-letting into discredit, not only with the better thinking class of physicians, but the public at large. "We cure the sick," says Guy Patin, a professor in the Royal College of France, "when over eighty years old, by blood-letting, and also infants of not more than two or three months, with as much success and as little inconvenience." Rush, the great champion of this operation on this side of the Atlantic, bled indiscriminately and remorselessly at all periods of life, the young, the middle-aged, and the old, in all kinds of diseases, in the eruptive fevers, in fever and ague, in puerperal fever, in inflammations, in injuries, in hemorrhages, and even in anæmia, often taking immense quantities of blood, and repeating the operation six, eight or even a dozen times in the same patient. In short, he and his followers used to bleed in every possible disorder until, in many cases, no more blood would flow, because there was none left. That such a practice would at length work out its own destruction is what might reasonably have been expected. It rang its own knell.

Third.—That we are much better acquainted with the nature and treatment of disease than our fathers were is a fact so universally accepted as to require no argument in its support. Our progress in this respect, during the last forty years, has simply been marvellous; and to nothing are we so much indebted for these improvements as to the study of pathological anatomy and histology, and the astounding developments of chemical science.

Fourth.—That the treatment of disease has been greatly simplified within the period above specified is familiar to every member of the profession. Homœopathy, by the absurdity of its doctrines and primitive practices, long ago demonstrated to the world that most of its cures are effected spontaneously, through nature's restorative powers alone, while the patient's mind is medicated with the decillionth part of a drop or a grain of medicine; and in comparatively recent years two eminent medical philosophers, Professor Bigelow, of Boston, and Sir John Forbes, of London, showed us, by a series of admirably-conducted observations, that certain diseases, as small-pox, scarlatina, measles, typhus and typhoid fevers, are self-limited in character, and therefore not to be materially if at all abridged in their course by any plan or means of medication whatever. A third of a century ago the only so-called depressants, aside from the use of the lancet, were tartar emetic, calomel, digitalis, the latter of doubtful efficacy in any case, and the first often exhibited without due discrimination. Of aconite and veratrum veride, now so universally employed as antiphlogistic agents, we were totally ignorant. These two medicines, as I shall endeavor to prove by-and-by, although frequently of immense service in the treatment of inflammatory affections, are far, far inferior to blood-letting.

Believing that these are the principal, if not the only, reasons which have led to the abandonment of blood-letting as a therapeutic agent, I propose now to speak of the operation itself, and to point out first, the classes of diseases to which it is more especially applicable; secondly, the period at which it should be performed to yield the greatest amount of good; and, lastly, its mode of action.

Blood may be abstracted in different ways, as, first, by venesection, secondly, by leeches and cups; thirdly, by incision, scarification, or puncture; and fourthly, by arteriotomy. The latter operation is so difficult of performance that few practitioners are willing to attempt it. There are cases, as in violent inflammation of the brain, eye, and ear, in which it is supposed to exercise a peculiarly beneficial influence; but generally speaking, it is quite certain that venesection, if properly executed, answers every purpose, even in the affections here specified. Similar remarks are applicable to bleeding at the jugular vein, also usually a difficult and, sometimes even a dangerous, operation.

The diseases to which blood-letting is more particularly applicable are the different inflammations,

acute and chronic; general bleeding being best adapted to the former, and local to the latter. Hippocrates and his immediate followers bled largely in pneumonia and pleurisy, and Sydenham, Rush, Louis, Drake, and many others often took immense quantities of blood in the treatment of these maladies. In acute inflammation of the eye, in robust subjects, bleeding is often indispensably necessary to save the affected organ. Who would hesitate to draw blood largely, under similar circumstances, in acute inflammation of the brain and its envelope, in acute pericarditis or endocarditis, in hepatitis, splenitis, gastritis, enteritis, peritonitis, cystitis, metritis, or orchitis? Stricture of the urethra would be much less frequent if young men laboring under gonorrhœa were freely bled at the beginning of the attack. In traumatic affections of the joints, unattended with loss of blood or severe shock, the abstraction of blood would often prevent anchylosis, so common under the present system of treatment. The spasm which is so often present in recent fractures, especially in those of the leg and thigh, is more readily controlled by venesection, followed by a hypodermic injection of morphia, than by any other agent I have ever tried.

In chronic inflammation, blood-letting is often an indispensable remedy. Even the most ultra advocate of the stimulant method of treatment will hesitate to employ it when destructive action is gradually but surely undermining structure and function. The abstraction of five, eight, or even ten ounces of blood in chronic pneumonia and pleurisy, especially when associated with severe pain and obstructed respiration, often acts like a charm, relieving suffering and promoting the beneficial action of other measures. In chronic ophthalmia a few leeches applied to the fore part of the temple, on a line with the commissure of the lids, frequently produce the happiest result. But I will not consume your time by an enumeration of the different cases of chronic inflammatien in which blood-letting might be advantageous. What I have said respecting the lungs, pleuræ, and eye is equally applicable to other structures, and needs no further elucidation here.

It requires no labored argument to show that general bleeding can be successfully practised only at the beginning of an acute disease, or during its earlier and gravescent stages. Performed at a later period, when the morbid action is fully established and the affected tissues are inundated with inflammatory deposits, it cannot fail to do harm by robbing the system of the strength so much needed to carry on its vital processes. A copious bleeding at the outset of a violent inflammatory disease is gold; but at its height, lead, or, to express myself more clearly, life in the one case, death in the other.

Secondly.—To draw blood to the greatest possible advantage, the quantity should be measured, not by ounces, but by the impression it makes upon the system, as denoted by the pallor of the countenance, the reduction of the heart's action, the softened state of the pulse and skin, the abatement of pain and of other symptoms, as headache, thirst, and restlessness, so universally present in all severe inflammatory attacks. To insure this result in the most speedy and decided manner, the blood should be drawn from a large orifice in a large vein at the rate of two and a half to three ounces in the minute, while the patient is in the erect or semi-erect posture. If the body be recumbent during the operation, a much larger quantity of blood will be required to be drawn to produce the desired effect than when the reverse is the case. While, therefore, the bleeding should be spoliative, care should be taken not to waste the fluid unnecessarily.

To prevent undue reaction after the operation, the bleeding should not be carried to complete syncope, but merely to an approach to this condition, the effect of the operation being carefully watched by a reference to the countenance and the pulse, lest it should exceed the proper limits, and thus do harm instead of good. Violent reaction, however, in any case, after the abstraction of blood, may generally be effectually prevented by a full dose of some diaphoretic anodyne, as ten grains of Dover's powder with one-fourth of a grain of morphia, given immediately after the operation.

Respecting the repetition of the operation, every case must, so to speak, make its own rules. If, after a very copious bleeding, the symptoms rapidly reappear in all or nearly all their former intensity, the operation should at once be repeated, either by reopening the original orifice or by selecting another vein. In urgent cases, as in violent pneumonia, pleurisy, peritonitis, cerebritis, or endocarditis, the operation may often be repeated several times in rapid succession. Under such circumstances, the practitioner must, like a wary general, make forced marches, and follow up his successes, not waiting until the enemy has intrenched himself behind his works, but striking heavy blows while he has the opportunity.

But I shall be told that such heroic treatment must inevitably induce serious debility. I grant it will; but in turn I ask, will the disease, if neglected or permitted to progress, not also cause debility,—debility, perhaps, of the very worst kind,—debility from over-action of the heart, imperfect supply of nerve-fluid, deranged circulation, impaired function of vital organs, and, above all, from disordered structure from inflammatory deposits? The enlightened practitioner bleeds to save tissue, and to prevent the morbid action from running riot. He repairs strength, when the time for it arrives, by making blood with nutritious food and drink, and thus speedily sets the machinery of life again in motion. The timid, hesitating practitioner, the opponent of bleeding, on the contrary, although he may employ the same restoratives, uses them inopportunely, and thus allows the debility caused by his treatment to linger for an indefinite time, provided the patient is so fortunate as to survive the first onslaught of his disease.

Before I proceed to speak of local bleeding, let us briefly inquire into the mode of action of venesection, or, in other words, how the removal of blood from the system affords relief in inflammatory

affections. This question can be easily answered. In the first place, the abstraction acts spoliatively, diminishing, as the name implies, the quantity of blood, both in the part and system. Secondly, it weakens the power of the heart, and thereby prevents it from sending the blood with the same force and velocity into the suffering structures. Thirdly, it unlocks all the emunctories, and thus promotes secretion. Fourthly, it disgorges the vessels at the seat of the disease, restores the circulation, and places the absorbent vessels in a better condition for the removal of effused matter. And, last, but not least, it favors the action of other remedies, as purgatives, diaphoretics, diuretics, and anodynes.

But it will be said that all these effects may and can readily be induced by the agency of other remedies, as aconite, veratrum viride, digitalis, mercury, and tartar emetic, and that, too, at much less cost to the system. That these articles are powerful depressants, lowering the heart's action and promoting secretion, no one at all acquainted with their virtues will question; but I deny that they exercise the same beneficial impression upon the vessels at the seat of the inflammation. When blood is drawn freely from a large vein at the bend of the arm, from a large orifice, to an approach to syncope, the vessels at the seat of the morbid action are unloaded, often to such an extent that the affected structures do not exhibit any marked difference in color from those in their immediate vicinity. Thus, for example, in violent conjunctivitis the mucous membrane, the seat of the disease, always, under such circumstances, presents a perfectly blanched appearance, however red and engorged it may have been the moment before. Now, what occurs in the eye, in such a case, may reasonably be supposed to take place in any other part of the body when a patient is bled to a similar extent. In pleurisy, one of the immediate effects of the copious abstraction of blood is a mitigation of the torturing pain which forms so prominent a symptom in this disease, due, evidently, to the diminished calibre of the vessels in the pleura, previously in a state of complete repletion. Has any one ever witnessed such an effect from the exhibition of aconite, digitalis, veratrum viride, or tartar emetic? Never. No matter how these articles may be administered, whether singly or variously combined, they are simply depressants, not depressants and evacuants, as the abstraction of blood from a vein or an artery; there is no blanching of tissue from their use, no unloading of distended and crippled vessels,—indeed no direct appreciable effect of any kind.

The more recent researches in pathological histology furnish a hint not easily to be mistaken as to the most salient treatment of inflammation in its earlier stages. The leading indication is to restore the paralyzed capillaries to their normal tonicity, so as to prevent structural changes in their walls, and facilitate the outward passage of the white globules with which they are choked. It is now well known that in every inflamed area there is marked hyperæmic distention of the blood vessels, which are often crowded to their utmost capacity with leucocytes, which emigrate through the vascular walls, and, in conjunction with the effused blood-liquor, constitute the most important elements in inflammatory deposits. Hence the object of treatment should be to restore the capillaries to their normal calibre through the artificial induction of contraction of their walls,—an effect which can be brought about, as is daily witnessed in many of the external inflammations, by cold applications, which, as is well ascertained, produce reflex contraction of the vessels. In inflammation of the more deeply-seated organs and tissues, however, this object can only be attained by spoliative bleeding, whereby the affected capillaries are relieved of their contents. In this way only can their tonicity be restored, the further effusion or migration of cell-elements restrained, and the absorption of existing deposits favored.

Another effect of bleeding, not to be overlooked in this discussion, is the diminution which it causes in the quantity of fibrine and white globules, so remarkably augmented in inflammatory affections. This change, of which I have witnessed many examples, was beautifully illustrated in the case of a young man, nineteen years of age, whom I attended along with the late Dr. Charles Woodward, of Cincinnati, on account of a severe attacks of pleurisy. Blood was drawn on three consecutive days, the first bleeding being performed about thirty-six hours from the commencement of the attack. The fluid, amounting to nearly a quart, was not only greatly buffed, but cupped on both sides of the crassamentum, as is shown in the specimen which is still in my possession. At the second operation the fluid was buffed, but not cupped; and at the third it was merely a little sizy, all pain and active inflammation having by this time disappeared. If such effects follow the use of the articles above mentioned, I am uninformed of the fact.

In leeching and cupping, blood may be taken directly from the affected structures, or indirectly, as when they are practised at a distance from the seat of the inflammation; in the latter case the effect, if carried to a great extent, is similar to that produced in venesection, but generally much more tardy, and, therefore, in the main, not so efficacious. When the tissues are divided, as in incisions, scarification, or puncture, the vessels are directly drained of their contents, an operation often followed by great, if not permanent, relief. Illustrations of the efficacy of this mode of depletion are daily witnessed in tonsillitis, in erysipelas, ulcers of the extremities, inflammation of the uterus, and in impending mortification, not to mention other affections.

I have said that general bleeding can be successfully practised only at the beginning of an inflammatory attack, a fact which, I repeat it, is not to be lost sight of in weighing the propriety of such a procedure. Let it be borne in mind also that bleeding is not to be practised indiscriminately, but judiciously and with proper regard to the condition of the system. Our fathers grievously erred, because they bled in every stage of disease, and in all states of the system, the plethoric and the

anæmic, the strong and the weak. Of course there were exceptions, but as a rule this was the practice; the harm, hence, as a natural consequence of the abuse, the abandonment of the treatment. It is within the recollection of all the older members of this Association when the practice of medicine in this country and in Great Britain was limited to the lancet, calomel, digitalis, opiates, and tartar emetic, with gruel and chicken-broth as the chief diet during sickness. I well remember the time when the use of cold water was interdicted as highly improper, especially in the treatment of the so-called eruptive fevers, and when ventilation of a sick man's chamber was considered as fraught with danger. Bleeding will again come into fashion; history constantly repeats itself, and knowledge runs in a circle. No sensible man can fail to read the signs of the times; but it will not be indiscriminate bleeding, but bleeding performed for a reason, early, and, if need be, freely, to save tissue and promote resolution; in the robust and plethoric, in the young and middle-aged, not in the weak, the anæmic, the intemperate, the broken-down, and the decrepit. Practitioners during the last third of a century have labored under a delusion and a dream, from which they are gradually emerging to a sense of their duty; and, although I am not a prophet or the son of a prophet, I venture to predict that the day is near at hand, if indeed it has not already arrived, when this important element of treatment, so long and so shamefully neglected, will again become a recognized therapeutic agent, and will thus be instrumental in saving many lives, many an eye, many a lung, many a joint, and many a limb.

But bleeding should not be restricted to the treatment of inflammatory diseases. There are other affections in which it may often be practised with the greatest benefit. In puerperal convulsions, attended with a plethoric condition of the system, copious venesection, promptly followed by the administration of a full anodyne, either alone or in union with chloral and bromide of ammonium, and the application of leeches to the temples and cold to the head, is the sheet-anchor of our hopes, a positive *sine qua non* to success. An experienced and learned member of this association, Dr. J. Fordyce Barker, recently called attention to this subject in a paper characterized by strong sense and great practical acumen, worthy of his high position as an accomplished gynæcologist. I believe, indeed, that the practice thus set down is one now generally, if not universally, adopted in the treatment of this dangerous disease, as it was in the time of Dewees and his more enlightened contemporaries. In certain forms of apoplexy the judicious employment of the lancet cannot be too strongly insisted upon, especially in comparatively young and vigorous subjects. Blood in this disease is often taken with leaches when it ought to be taken with the lancet. In asthma, bleeding is frequently of inestimable value, in relieving engorgement and spasm of the lungs, the causes of the terrible dyspnœa so often present in the more aggravated forms of the disease. I recall to mind the case of a lady who was the subject of asthma from the age of fourteen up to that of eighty-six, when she died pneumonia, whom I repeatedly bled with the greatest advantage in attacks of this kind, which nothing else could relieve. In another case, that of a tall, slender gentleman of this city, nearly eighty years of age, in which a severe attack of asthma was complicated with great congestion and slight inflammation of the lungs, the abstraction of less than ten ounces of blood by the lancet led to a speedy convalescence and a complete cure. I verily believe that if this gentleman had not been bled he would have died. In certain forms of phthisis, venesection, judiciously employed, is frequently productive of great benefit. I allude more particularly to the chronic variety of the disease, kept for years in abeyance by great care and a properly regulated regimen. I remember the case of the late Mr. Benjamin Drake, of Cincinnati, a brother of the great professor, who labored for many years under disease of the lungs, associated with tubercular deposits, the more urgent symptoms of which were always promptly relieved by the loss of eight to sixteen ounces of blood by venesection. I have always felt satisfied that his life was materially prolonged by this treatment. Dr. Rush was in the habit, as Sydenham had been before him, of bleeding in every case of phthisis attended with a hard pulse, or a pulse rendered weak by the laborious transmission of blood through the lungs. In one of his cases he bled eighteen times in two weeks, and in another, fifteen times in six weeks, with the happiest effect. I do not cite these instances as examples for our imitation, but simply to show that a system borne down by disease may react favorably under what to us of the present day appears as a most heroic measure.

Forty years ago it was customary in protracted labor, dependent upon rigidity of the uterus and the perineum, to bleed in order to relax the parts and expedite the expulsion of the child. Dewees, in such cases, often took large quantities of blood, especially in young, robust, primiparous women, and occasionally even repeated the bleeding. I well remember that this was the general practice for a number of years after I entered the profession. Why it has fallen into disuetude it would be difficult to tell. The abstraction of blood under such circumstances was always followed by the exhibition of a large anodyne, under the influence of which the labor usually progressed rapidly to a favorable issue, without subjecting the poor woman to undue torture, the danger of lacerating the perineum, or the necessity of applying the forceps, the use of which is now so common among all classes of accoucheurs.

The plethoric condition of the system so frequently met with in young, robust, pregnant women is generally promptly relieved by the abstraction of twelve to fifteen ounces of blood, and certainly there is no more rational remedy in such circumstances, especially when the redundancy of blood is accompanied by dizziness, vertigo, or headache. Thirty years ago there were few women that were not bled once or twice during utero-gestation on account of the symptoms, and I do not know that I ever heard of one that was injured by the practice.

Certain forms of hysteria and epileptic convulsions, dependent upon congestion of the nervous centres and a redundancy of blood in the system, are generally materially benefited by venesection. The relief in the former affection is often prompt and permanent, as I can testify from personal experience.

In the convulsions of infants blood-letting is frequently of signal service. In that form of the disease which follows upon the more severe attacks of cholera, so rife in our hot summer months, and which are manifestly due to over-excitement of the brain, as is shown by the excessive heat of the head, the flushed condition of the countenance, the suffused eye, the intense thirst, the incessant restlessness, the intolerance of light and noise, and the twitching of the muscles, the abstraction of two to two ounces and a half of blood from the arm, in a child from one to two years of age, not only, in many cases, promptly arrests the vomiting and other distressing symptoms, but protects the brain from more serious mischief, and thus places the system in a condition for speedy convalescence.

In what is called hay-fever, a good bleeding sometimes affords immediate alleviation of all the disagreeable suffering incident to that complaint, as dyspnœa, violent sneezing, nasal catarrh, tightness in the frontal sinuses, headache, and horripilations, or chilly sensations along the course of the spine. I recollect one case which came under my observation many years ago, in a clerical gentlemen, thirty-three years of age, who, on being largely bled one Sunday soon after the close of his religious services, was completely cured for that season; and, although the malady recurred during several consecutive summers afterwards, the attacks were always comparatively light.

Cases have been related of great benefit afforded by bleeding in uræmic coma, attended with unconsciousness, dilated and fixed pupils, convulsions, a highly albuminous condition of the urine, and excessive prostration of the system. The blood at first issued feebly, but gradually the stream increasod in volume, the blood assumed a brighter hue, the pulse rose, the convulsions ceased, consciousness returned, and the patient finally made an excellent recovery. Several such examples will be found recorded in the *London Medical Times and Gazette* for September, 1874, by Dr. Benjamin W. Richardson, in an article on "Blood-letting as a Point of Scientific Practice," and are worthy of special study.

This spring twelve months ago I was requested to visit a lady, a stout, muscular person, in robust health, upwards of forty years of age, who for several y ars past had suffered much from attacks of headache, attended with dizziness, and occasionally, also, with vertigo. She had tried various remedies without benefit. I suggested bleeding, to which she at once assented, and I drew fully three half-pints of blood, with immediate and permanent relief.

Surgeons the world over draw blood after severe reaction in concussion of the brain, to prevent inflammation of that organ and of its membranes The more plethoric the patient the greater the necessity for such interference; but the operation should by no means be restricted to this condition, as it is often of great value, if timeously performed, in the comparatively anæmic subjects. It was a case of concussion of the brain that gave rise to the never-to-be-forgotten conversation between John Hunter and his pupil, Dr. Physick, at the time resident physician at St. George's Hospital, London. A man laboring under concussion of the brain from a fall from a scaffold was brought into the surgical ward in a state of utter unconsciousness. "What shall I do?" said the pupil to his master. "Shall I bleed him?" "Bleed him? Bleed him, sir? No, sir! You would kill him outright. Wait, sir, until he reacts, and then bleed him,—bleed him to death, sir." [Dr. Charles D. Meigs, in Pennsylvania Hospital Reports, vol. i. p. 27, 1868.] In compression of the brain from fracture, with depression of bone and compression from extravasation of blood, the abstraction of blood by the lancet and leeches is frequently resorted to for the purpose of securing cerebral accommodation, and the practice, as is well known, is o ten followed by the most gratifying results.

We all have, at some period or other of our lives, experienced the torturing, racking pains in the back and limbs, so common in bilious, remittent, and intermittent fevers, as if the body was about to be broken in two, causing us to turn and toss about almost incessantly in search of ease; the head generally at the same time terribly distressed, the skin hot and dry, the thirst intense, and the heart in wild, tumultuous motion. Who that has ever been freely bled in such a condition of the system does not remember with grateful feelings the prompt alleviation afforded by the operation? The application of a dozen wet cups to the aching back has often speedily transported the poor patient, as it were, from torment into elysium. In gout and rheumatism the abstraction of blood is frequently of immense benefit, if not as a direct curative agent, as a means of relieving pain and paving the way for the more successful action of other remedies. The passage of renal and biliary calculi is often greatly expedited, and the suffering caused by it much alleviated by a copious bleeding, especially in stout, plethoric subjects.

But I must stop, for my remarks have already been extended far beyond my original design, which was simply to point out a few of the more prominent diseases in which, in my humble opinion, this much-neglected but most valuable therapeutic agent may be advantageously employed.

The fate of blood-letting, Mr. Chairman, teaches us an important lesson, not at all calculated to elevate our pride as men intrusted with the preservation of the health and lives of our fellow-beings. It shows what little faith there is to be placed in human judgment, and how sadly we are influenced by authority and fashion in a matter pertaining to the dearest interests of society. If I wished to be satirical, I should say that there are in our profession, as there are, indeed, in every other, two distinct classes of men,—the thinking and the non-thinking. The

former, whose number is exceedingly limited, accept every novelty, or great and sudden change, with suspicion, wisely concluding that the one ought not to be adopted until it has been fairly tested by well-conducted observation and experiment, and that the other should not be rejected without sufficient cause. The non-thinking man, on the contrary, eagerly lays hold of every novelty, and seldom stops to seek a reason for his new faith. He adopts it simply because his neighbor adopts it. Especially is this the case when the novelty, whatever it may be, has a distinguished parentage, as when it has received the sanction of a great name, or perchance, if it had a transatlantic origin. Jones, Robinson, or Brown, in Europe, is always a great man, far greater than his namesake on the other side of the water. This non-thinking man confounds progress with improvement. He does not weigh the pros and cons of a question; he takes a shorter route; sees things in a distorted light, assumes for granted what he cannot comprehend, and jumps at conclusions. As the sheep follows the wether, so he follows his master, looks through his spectacles, believes in his infallibility, and swears by his authority. The more the assertion borders on the marvellous, the more greedily does he gulp it, so much easier is it to assume the truth of a proposition or statement than to prove it by sound logical argument and inductive reasoning. I think I am not guilty of exaggeration in what I say. It really seems to me as if we were bereft of our senses. No sooner is a new remedy, an operation, or a method of treatment introduced to notice, than it is puffed into gigantic proportions and endowed with virtues as foreign to it as any other folly under heaven. Certain it is, there never was any greater need for deliberation and reflection than there is at the present time; greater need of asking ourselves, "Watchman, what of the night?"

AMERICAN MEDICAL ASSOCIATION.

OBSTETRICAL SECTION.

Address of the Chairman, Dr. W. H. Byford, Chicago, Illinois, on the Treatment of Fibrous Tumors of the Uterus by Ergot.

Until recently, all forms of fibrous tumors of the uterus were regarded as beyond the reach of medicine or surgery. Enucleation was regarded as the only operation to be thought of, and that was very difficult, except in desperate cases. All will agree that it should be a last resort. Of the medicinal treatment of these tumors, we may say that it is not a last resort, but a safe means to be used before danger presents. Even in extreme cases, we may hope for success. We have learned that ergot, etc., exerts a special influence on the unstriped muscular fibres. This property is possessed not only by ergot and belladonna, but also by quinia, some preparations of lead, alum, bromine, and iodine in a high degree, and by most of the astringents.

From our knowledge of the unstriped fibres in the composition of the uterus, we can better understand how these agents can act upon the uterus. While these fibres from the muscular structure of the walls of the womb, they also form part of the arteries supplying its blood.

Ergot and belladonna act upon the walls of the uterus in a triple way, causing a diminution of the blood flow. The calibre of the arteries is diminished by the contraction of their muscular fibres; the arterioles are diminished in size by compression, by contraction of the uterine muscular fibres and womb; these vessels are distorted by both the contraction and compression, and hence, is checked the blood flow. Under the influence of these remedies, the nutrition of fibrous tumors is diminished, and hence they are more susceptible to disintegration and absorption.

We must not, however, expect too much of any remedy. The great success of Hildebrandt has exceeded that of his followers, and they have hence been tempted to reject the whole as a mistake. Probably partial benefit only will result in a majority of cases. Tumors which have become of a cartilaginous hardness, or masses of earthy matter, cannot be absorbed. Nor can they be disintegrated by lack of nutrition. Again, the power of contraction in some tumors is almost gone.

Tumors, however, of a single nucleus are generally very vascular, and the muscular fibres are hypertrophied, as in pregnancy. These grow rapidly, and at the same time are most easily affected by ergot.

Between such extremes there will be a great variety of results in treatment. As circulation diminishes, etc., the vitality of the tumor is lessened, until fatty degeneration results, and absorption is easily accomplished. Again, the ergotism aids to expel the tumor, whether it be a polyp or an intramural tumor. When the tumor is nearest the mucous surface this result is most liable to occur. He detailed two cases of his own; the fluid extract of ergot was used in one, in half drachm doses, for nearly three weeks, producing great suffering from uterine contraction. The tumor expelled, with inversion of the uterus, enucleation was performed, and the uterus replaced. In the other the ergot was used both by the mouth and hypodermically. The most complete success followed in both cases.

He had abstracts of one hundred cases of this mode of treatment, with the most favorable results, obtained from journals and letters of professional friends. In some cases, the pain has been intolerable and the remedy was discontinued. Again, ergotic intoxication supervenes and prevents a continuance. The debilitating hemorrhages, and leucorrhœal discharges are often promptly relieved. in many the tumor is greatly diminished. Again, If the tumor is not sensibly affected, disagreeable symptoms are generally relieved. Occasionally, no result is seen to follow treatment by this remedy. Metrorrhagia has been mitigated, though the tumor was apparently not affected.

He gave in great detail the cases by a number of operators, from which he drew the above points and a most favorable verdict by all. He sums up 101 cases; 22 were cured; in 39 the tumors were dim-

inished and the hemorrhage and other disagreeable symptoms removed; 19 were benefited by check of hemorrhage, etc., the size of the tumor and other conditions remaining unchanged. Only 21 entirely resisted the treatment, leaving 80 decidedly benefited.

Method of use of ergot.—Uniformity is not observed as to its employment; some use it hypodermically, others, also, by the mouth and by the vagina and rectum.

Hypodermically, it is thought to act more rapidly and certainly, and without gastric trouble. It is objected that this plan causes pain by the needle, inflammation and suppuration. Pain of inserting is rarely an objection. Hildebrandt, in 1000 injections, never saw an abscess follow his own operations, and only three times in the charge of his assistants. He always injected very deep into the subcutaneous cellular tissue, perhaps even into the abdominal muscles.

Atthill does the same, but had this trouble in all three of his cases.

Chrotak was compelled to abandon this method on this account, in four out of nineteen cases. Others also experienced the same difficulty.

Hildebrandt appears to stand alone in his success as to this point.

The lower part of the abdomen is selected for the injections generally.

Keating injects back of the great trochanter.

Jackson uses the deltoid at the point.

White injects over the abdomen into the cervix, uteri, and into the tumor, if accessible, and with no bad results.

Wey encountered abscesses once in every eight injections. He used the abdominal region.

Hildebrandt uses Wernich's formula for the watery extract of ergot. It is thought to be very similar to that of Squibb. Hildebrandt adds pure glycerine, one part to four of the solution, and injects forty minims, containing a little over two grains of the extract, say ten to twelve grains of crude ergot.

Americans generally perfer Squibb's. He recommends the following: dissolve 200 grains of the extract of ergot in 250 minims of water, by stirring, filter, and make up to 300 minims by washing the residue on the filter with water. Each minim represents six grains of powdered ergot. Ten to twenty minims should be injected daily, or every two days.

Wey layes stress on a fresh solution, as it rapidly deteriorates and becomes irritating; generally in half an hour painful contractions result, an increased hardness of the tumor is felt. These contractions increase for two hours, continue with vigor from six to ten hours, and gradually cease. Some refuse to proceed, on account of the suffering. Often hemorrhage is insensibly controlled, and the tumor slowly decreases, without the patient experiencing any discomfort. Generally, the benefits are most rapidly produced in the early part of the treatment.

Most frequently, the internal treatment is by the fluid extract alone, or with belladonna. Some say thirty drops three or four times a day. Others use a drachm once or twice in twenty-four hours. Perhaps it is most efficacious in large doses and less frequent. This preparation is very offensive, and occasionally cannot be borne. Squibb claims that his solid extract does not so offend. It may be used in pill coated with gelatine; five grains equal twenty grains of crude ergot, and may be given two or three times a day.

Dr. Byford preferred this form.

White uses a suppository of fifteen grains of solid extract.

The addition of belladonna increases, in some cases, the effect.

Goodrich who obtained excellent results, used the two.

Ergot also benefits in other ways. Often it relieves obstinate constipation, improves the appetite, and health is regained. It may, however, cause inflammation of the uterus. Some have seen it produce vertigo, imperfect control of the extremities and slight spasms of the flexors of the forearm; others observed nervous perturbation. Allen reports phlebitis as resulting, in one limb resembling phlegmasia albadolens. It is believed not improper to continue its use during the menstrual flow.

Auxiliary treatment is rejected by some, but is generally regarded as useful. Absorption may be promoted by the alkaline bromides and iodides.

Corrective treatment aids to prevent or ameliorate the disagreeble effects of the ergot. The chloral renders it more tolerable. Indigestion, constipation, etc., may be corrected by tonics, laxatives, and stimulants, given simultaneously with the ergot. Finally, he concludes, the ergot may cause disintegration and absorption, may interrupt the nutrition of the tumor; decomposition occurs within the capsule, and a semi-putrid mass is expelled. This is accompanied by inflammatory symptoms, and more or less toxæmia. The tumor, in its capsule, may be expelled from the cavity of the uterus, with greater or less inversion of the womb. It is then readily removed. There may be great suffering, and even peril, from the gangrenous disintegration and the pain of expulsion. Ergot does not always act at once, but appears cumulative, causing rather suddenly extreme and prolonged contractions. Opium and chloral may then become necessary.

From a review of the cases, it is seen that the gradual disappearance of the tumour takes place under small doses.

We are warranted in saying that moderate doses of ergot, as one-half drachm doses of the fluid extract two or three times a day, hypodermically, persistently used, is generally sufficient to cause a gradual disappearence of the tumor, and this quantity should not be exceeded in the treatment of large multinuclear tumors.

When we desire to cause the expulsion or gangrenous disintegration of a tumor, we must use large quantities, and continuously, until this effect results. Much careful observation is yet necessary to determine fully the safe and effective use of ergot.

NOTES ON SCARLATINA.

By Arthur Wynne Foot, M.D.; Junior Physician to the Meath Hospital.

It appeared to me that it might be of interest, at the present time, to offer a few brief remarks on some points connected with scarlatina. The epidemic which has just begun to abate has furnished numerous cases for observation, and has enlarged the experience of many, while it has almost originated that of some. Among the latter class I place myself, and, therefore, I noted with care, as many cases as I had time to observe accurately, and added them to my small stock. The object in view was not statistical in any way, but the acquisition and preservation of a personal experience of the disease. I find in my note-books 73 cases detailed in full, and of 17 others the clinical charts of temperature, &c.; these data furnish the basis of my comments on the subject. These 90 cases, the greater number of which have reference to the present epidemic, do not, of course, include all the cases which have come under my observation, but are merely those to which I can refer with certainty as accurately noted at the time. The number may appear very small to some, but as my experience has been principally derived from the wards of the Meath Hospital, it is proper to observe that the accomodation there, in the isolated building for infectious diseases, is scanty; that many of the cases, owing to tedious sequelæ, occupied beds for a long time—50, 60, and 70 days, or more—and that many were kept in hospital after apparent convalescence, as a prophylactic measure against ulterior complications.

My impression of the late epidemic is, that although the mortality in the city, in general, was large, this was rather owing to its prolongation and general diffusion than to the severity of type it exhibited; and that fatal results occurred rather from the state of health of those attacked than from malignancy in the virus. This impression is founded on three classes of observations—first, the number of deaths was relatively, for scarlatina, small in the number of cases which came under my observation; in the hospital it was 9 in 73, or 12.3 per cent.; secondly, the throat affections, and their consequences, did not seem as severe or as numerous as usual; and, thirdly, the elevation of temperature was not excessive. In reference to the first point, it is to be borne in mind that the rate of hospital mortality of scarlatina is relatively raised by the advanced stage in which, from reluctance to part with them, parents bring their children for admission, often carrying them there only when dying, and when treatment is useless and hopeless; and, again, the very mild cases are usually not brought to hospital at all. Then as to the throat affections, there seemed to be a marked absence of the formidable consequences described in previous epidemics—for instance, in Dr. H. Kennedy's account of the epidemic of scarlatina which prevailed in Dublin from 1834 to 1842 inclusive, such as hæmorrhage from the carotid artery or jugular vein, and diffuse cellulitis of the neck. The elevation of temperature was not excessive; 1,857 observations on the temperature in scarlatina have been made by the clinical clerks, the practising pupils, and myself. Seven cases on one or more occasions exhibited a temperature of 105° F., or upwards; four of these seven died. The highest temperature I have observed in scarlatina was 106.8° F. It occurred on the evening of the third day, in a boy aged sixteen, from Rehoboth Reformatory, with the pulse 160, respiration 34. Although quite conscious and intelligent, his lips, hands, and nails were dark blue, his feet and legs of a greyish-leaden colour, the chest and back exhibited the eruption of a very dark colour; the throat affection was of the catarrhal variety. Although there appeared to be ample room to swallow, he had spasmodic dysphagia. He died the following morning. From the earliness of the rise of temperature in scarlatina, the thermometer becomes of the greatest use in prognosis; Wunderlich observes that in all cases of scarlatina which are tolerably severe, the *first* sympton which shows itself, or, at all events, one of the first, is a rapid and continuous elevation of temperature, by which, in the course of a few hours, this reaches a considerable height, 103.1° to 104° F. The height finally reached by the temperature is almost always above 104° F., very commonly over 104.9°, but seldom in cases which terminate favorably exceeds 105.8° F. Cases of scarlatina also occur in which, very suddenly, and without obvious motive, the temperature rises to enormous heights before death; in one of Wunderlich's cases it rose to 110.3° F. Currie found a temperature of 112° F. in a case of scarlatina; and Dr. Bathurst Woodman has put on record some fatal cases of scarlatina, in which the temperature amounted to 115° F. In these latter cases the observations were made with one of Negretti and Zambra's thermometers, divided into fifths, which had never been recently compared with a standard. By sponging with vinegar and tepid water, and then changing to a fresh bed with cool sheets, I have, in a few minutes, reduced a morning temperature of 105° F. to 102.4°. Though Wunderlich remarks that the temperature seldom exceeds 105.8° F. in cases that terminate favorably, I have had a case in which the temperature on the third night was 106°, and which made a good recovery, although the boy, eighteen years of age, was not quite convalescent from typhus when he got the scarlatina. In contrast with this case of recovery from scarlatina after typhus, is one of typhus after scarlatina, which proved rapidly fatal, probably on account of renal disturbance bequeathed by the scarlatinal attack. A fair-haired, fresh complexioned lad of sixteen was discharged from an hospital after a five weeks' illness from scarlatina; five days afterwards he got ill, and on the sixth day of this illness he was brought to the Meath Hospital, covered with a close, minute, dirty-pink eruption; sheets of skin were coming off his feet; he bled from the nose, kidneys, and bowels; an icteroid hue came over the skin of the face and the conjunctivæ, accompanied with hiccup, green vomiting, and coma; and he died, in convulsions, on the 11th day of this illness. The kidneys were in a state of parenchy-

matous nephritis, enlarged—the left to 10, the right to 8¾ ozs.,—softened, of a brownish-purple colour, and greatly congested; the gorged, pultaceous spleen, weighing 21½ ozs., flattened itself out on the table like a flabby fish. There seems every reason to believe that in this case the fatal issue of the typhus was determined by the recent attack of scarlatina, and it makes a striking contrast with the case of the other lad who got the typhus before the scarlatina.

When the case just mentioned presented itself, and before he was put to bed and examined, as he was stated to have just left an hospital after having had scarlatina, the idea of its being a case of relapse occurred to me, but I have not yet met with a case of genuine relapse in scarlatina. Such, however, occur, and it does not appear to be a very unfavourable event. Trajanowski records eight cases in which relapse took place, and none of them proved fatal. In one, selected as an example, on the twenty-fourth day, seventeen days after the cessation of fever, the scarlatina eruption again covered the whole body, sore throat returned and hæmaturia (desquamation and albumen had been disappearing); on the eleventh day of the second attack febrile symptoms disappeared, and a second desquamation followed in the usual way. I have met with two cases only of second attacks of scarlatina. One was a young gentleman, aged fourteen, who, I was told, had had scarlatina four years previously, and had been attended for it by a surgeon of eminence, since dead. He was exposed to infection at school, and took it a second time, and had the disease in a very fully developed form. On the sixth day the whole body, with the exception of the face and neck, became covered with a miliary eruption, which was opalescent and whey-coloured in the morning, and by evening was bright yellow. This eruption, which retreated in little more than twenty-four hours, was succeeded by great hyperæsthesia, especially of the upper extremities; he cried out when his hands were touched, or the bedclothes gently tucked in over his arms to keep them from exposure. The pustular eruption seemed to dry up rapidly under the use of 20 gr. doses of sulphocarbolate of sodium every eighth hour. On the twenty-fifth day he got cold from going to a water-closet contrary to orders, and pericarditis set in, with a well-marked metallic friction, which lasted for four days; when this disappeared green vomiting and bleeding from the nose and gums came on; nothing but soda water would stay on his stomach. On the thirty-eighth day the pulse was 150, and temperature exceedingly high, and he was ordered 5 gr. doses of quinine every third hour. After 10 grs. of quinine he was quite deaf, the pulse was 129, and the temperature reduced; after he had taken 25 grains of quinine he was much better, took some food, and asked to be allowed to sit up; and, although remaining quite deaf for a week, convalesced from this time steadily. The other case of a second attack in a medical student, twenty years of age, who had charge of scarlatina cases in hospital. He died on fourth day with suppression of urine, coma, and convulsions. His mother told me that, when a child, he had had scarlatina so badly that the medical man who attended him had despaired of his recovery. A significant point about this case was that he had recently had syphilis; he had taken mercury in abundance, and had had severe attacks of erethismus mercurialis. This latter class bears upon the subject of the relation, hinted at by Dr. Woakes, between syphilis and malignant scarlatina. Dr. Woakes has advanced the suggestion that cases of malignant scarlet fever, occurring when the type of the prevailing epidemic is mild in character, may be accounted for by the existence of inherited syphilis. In support of this view he adduces five instances, the only fatal ones occuring to him during an epidemic of scarlatina of nine months' duration, in each of which the hereditary taint was distinctly traced; he also hints that this circumstance, inherited syphilis, may explain the well-recognised fact that, in certain families, scarlatina is almost invariably a fatal disease. In reference to this point, of a relation between syphilis and malignant scarlatina, I think that, if, as Dr. Woakes' cases seem to show, inherited syphilis, by deteriorating the constitution, enhances the severity of scarlatina, primary and recent syphilis would be still more likely to do so; but there are certainly families specially obnoxious to scarlatina, in whom the fatal peculiarity cannot be ascribed to a syphilitic taint.

Cases of Rötheln have not come numerously under my notice, probably because being, as Trousseau observes, the most benign of all the eruptive fevers, and terminating spontaneously without requiring medical interference, such cases were not brought to hospital. However, two well-marked cases were admitted, one of which, a young woman, aged twenty-four, exhibited the compound eruption in a marked degree; the eruption on the trunk, back and front, resembled that of measles, that on the arms resembled that of scarlatina, while there was none upon the legs. The subfebrile temperature, especially in their early stages, accorded remarkably with those of the cases published by Dr. J. W. Moore, in whose communication on the subject will be found a very complete *resumé* of what is known about this affection.

Many cases of scarlatina, and principally the worst, were thickly covered on all parts but the face with what might be called puriform sudamina, but which Hebra refers to the opaque form of miliaria crystallina constituting the *scarlatina miliaris*. this eruption was usually accompanied with very troublesome itching, which was relieved by sponging with vinegar and water, and in males its existence on the scrotum—about which part and in the cleft of the nates it was abundantly developed—gave rise to much annoyance from friction against the thighs; this was alleviated by enveloping the scrotum in wadding. In two fatal cases with lurid purpuric eruption—one of which a boy, aged fourteen, died on the sixth day, the other a young man, aged twenty-two, on the fifth day—the contrast on the indigo-coloured corpses of the bright-yellow or milk-white eruption was very striking, and verified Hebra's observation—that if there is any one erup-

tion which remains visible and unchanged after death it is this, the miliaria. This eruption appeared of an unusually large size in a girl of sixteen, who recovered; on the twelfth day large, white, raised vesicles, the colour of grease, uncommonly like the milky, flattened eruption of variola, which goes by the name of the "white pock," appeared in numbers on the front and sides of the chest and abdomen; there were many the size of a fourpenny-piece; they appeared to be the form of eruption which has given rise to the term *scarlatina pemphigoidea*. Besides the ordinary scarlatina eruption and the miliary and pemphigoid eruption, urticaria was noticed, and in one case a rose-coloured papular eruption appeared subsequent to a crop of pustular sudamina which had followed the normal efflorescence. The miliary eruption in cases which recovered had a desquamation of its own, which preceded that of the general skin. In a case of scarlatina sine eruptione, the student in attendance caught scarlatina of a severe type, and there was reason to believe he was infected by that particular case; and I think this one of many proofs that the *contagium* of scarlatina is by no means peculiar to the exfoliating cuticle. That, however, it is highly communicable by means of the epidermis is well known, and it seems to be transmissible by post in this manner; and, as an illustration, an abstract of a case of "scarlatina communicated by a letter" may be cited from Dr. J. W. Moore's "Report on Scandinavian Medicine." The author (Dr. Petersen) made the observation—in the case of a girl, aged seventeen, who contracted scarlatina without the possibility of tracing the infection directly to any person—that a friend of the patient living several miles away had had the disease a month previously, and that this friend had regularly corresponded with the patient during the period of her desquamation. The author regards it as not impossible that scarlatina may be conveyed in this way—separate, perhaps microscopical, scales being thrust off the hands on to the paper during the writing of a letter, and the infection being thus carried to the address. The popular habit of immediately burning letters received from a house in which there is infectious disease as soon as read is not to be discountenanced. In the case of a girl, aged fourteen, who had been affected with xeroderma and ichthyosis-spuria, and who contracted scarlatina immediately after these conditions of the skin had been removed, the process of desquamation was watched with interest, but it did not present any special modification over the parts which had recently been diseased. It is probable that the regeneration of the skin subsequent to the attack of scarlatina was beneficial; it is stated that ichthyosis-vera has been cured by an attack of small-pox.

The vomiting and purging in the early stage of bad cases seemed, as Dr. Graves has remarked, to depend on cerebral irritation and congestion, rather than upon an effort of the stomach to get rid of any offending materies morbi. A permanently contracted pupil, particularly noticed by Fothergill as a sign of bad omen, was observed in a malignant case in which hiccup occurred almost incessantly, from twelve to nineteen times in a minute. Head symptoms, such as convulsions, when apparently connected with a diseased condition of the kidneys, as evidenced by scanty and bloody urine, were treated by leeching and cupping over the kidneys, poultices, plain or of digitalis leaves, and compound powder of jalap, the head being sometimes shaved and cold lotion applied. The tendency to the head in scarlatina, affecting one subject to epileptic fits or debilitated in the nervous system, was exemplified in the case of a little girl of eight, who, from an affection of the brain at four years of age, had paralysis and atrophy of one upper extremity. She was one of four children who all had scarlatina very lightly. Immediately after their recovery they were advised sea-bathing; two of them got dropsy; the girl severe convulsions on the paralysed side, followed by coma, from which she was aroused to a state of the greatest mental activity by the application of liquor ammoniæ on a towel to the shaved scalp, but only to die, in twelve hours, of rapid effusion into the bronchial tubes. Her urine was solid with albumen, and dry cups applied over the kidneys produced highly raised blobs of serum.

Of the scarlatina bubo—for it is an anatomical misnomer to call it a parotid swelling, since it originates below the angle of the jaw, and is due to irritation of the lymphatic glands of the tonsil, soft palate, and pharynx—three varieties were observed: those which opened spontaneously—sometimes inwardly, sometimes outwardly, or sometimes in both directions—those which required an incision, in one case two and a half inches deep, and those in which there was no indication of the formation of matter, but merely an œdematous infiltration of the parts; more than one of the latter cases died unrelieved. The buboes appeared to be a local result of the constitutional irritability of the lymphatics, and to depend upon the amount of pharyngeal ulceration, presenting themselves on the right or the left side, sometimes on both, according to the situation of the ulceration in the throat. A boy, aged nine, was brought to hospital to be treated for torticollis, which had resulted immediately after an incision, made elsewhere, into one of these scarlatinal cervical abscesses; the incision appeared to have divided the spinal accessory nerve just before it enters the upper third of the sterno-mastoid muscle, and to have paralysed both it and the trapezius of the same side. Leeching sometimes relieved the delirium in these cervical swellings, a delirium caused by the pressure of the enlarged glands upon the internal jugular vein; poultices, from their weight and pressure, were borne with impatience, and constantly pulled off; the application of wadding was more light and comfortable, but, unless in the cases which subsided spontaneously, nothing gave relief but the exit of the matter. Severe rheumatic pains in the joints were frequently observed; but, although rigors and sudden rises in temperature were observed, in no case was there any permanent disturbance of an articulation; the articular pains required opium in doses measured much more by its effect upon the

pain than by the age of the patient. Pericarditis was in three or four cases detected, but proved fatal in no instance.

The oldest patient I have had in scarlatina was a policeman, aged forty-two; he was a mild case, and made an uncomplicated recovery. In a man, aged thirty-three, the scarlatina was followed by a most tedious and severe attack of enteric fever, which kept him in hospital for two months and twenty days, exclusive of the scarlatinal illness. He had left hospital, convalescent from scarlatina, eight days, when he got the initial rigor of enteric fever. In his paper on the "Relation of Scarlatina to Enteric Fever," Dr. Harley gives five cases in which scarlatina was followed by enteric fever, as if it were a relapse, and three cases of simultaneous enteric and scarlet fevers. His previous observations on the pathology of scarlatina tend to show the similarity between the morbid anatomy of the two diseases, and to such cases he would apply the term "Abdominal scarlatina." The ordinary cases of scarlatina were simply treated with dilute acids and an astringent gargle, or one of plain warm water, the throat been protected externally with wadding; catarrhal irritation of the pharynx, with a thirty-grain solution of nitrate of silver, brushed occasionally over the surface. For parenchymatous inflammation of the tonsils with ulceration of the surface, glycerine of tannin or diluted carbolic glycerine were applied. In one case in which there was genuine diphtheritic exudation, nothing dissolved the tenacious exudation and facilitated its removal from the subjacent bleeding surface like solution of lactic acid. For nasal catarrh the nares were syringed with diluted carbolic glycerine. The initial fever, when violent, was moderated with aconite. The head symptoms, such as pain, sleeplessness, delirium, and convulsions, were treated differently, according as they appeared due to the violence of the fever of invasion, to the cervical swellings, the state of the kidneys, or the malignancy of the attack. Two prime conditions of treatment appear to be a judicious dietary, excluding nitrogen as much as possible in anticipation of the detriment liable to accrue to the renal organs, and the proper use of stimulants; these latter were frequently well borne in this epidemic. The treatment was essentially eclectic, and in no respect was routine observed. In such a treacherous disease the channels buoyed and marked carefully on his charts by one pilot may prove dangerous to another who may select the same route, owing to differences in the build, and trim, and draught of the vessel to be navigated; and no disease requires more ample therapeutic resource, more constant alertness, and more careful independent judgment in its management, than does scarlatina.—*Dublin Medical Press.*

ON CROTON-CHLORAL HYDRATE.

In the *Medical Press and Circular* Dr. J. C. O. Will says:—

I may state my decided conviction that of all hypnotics, croton-chloral has the least troublesome sequelæ.

I make it into a syrup containing two grains of croton-chloral to a drachm of a mixture of glycerine and syrup of orange flowers, colored by adding a very minute quantity of tincture of cochineal. This effectually conceals the taste of the drug, which is certainly to be desired, as it seems to me decidedly unpleasant, and when taken without some flavoring agent it leaves a disagreeable, semi-acid taste in the mouth for a considerable period after swallowing it. This preparation is permanent, a matter of considerable moment, as croton-chloral, though rather freely soluble in warm fluids, is only sparingly so in cold, and when first employing it I was disappointed to find that a mixture which was perfectly clear when first made, soon after became clouded, and threw down a copious deposit of crystals on becoming quite cold. It is, as stated by Wallich and Diehl, freely soluble in alcohol, and a strong tincture can thus be prepared; but, fortunately, on the addition of water, separation soon takes place, the liquid first presenting an oily-like appearance, and soon after depositing crystals. Therefore, if a strong spirituous solution is prescribed, directions must be given that water, in the proportion of at least a drachm to each two grains of the croton-chloral, should be added before the dose is taken, else the changes I have indicated will ensue, and some of the crystals are pretty sure to adhere to the spoon or glass, or to remain in the patient's mouth, an occurrence certainly not desirable, as the taste of pure croton-chloral is far from agreeable.

CASE 1.—Mrs. T., æt. 30, suffering from severe facial neuralgia, occurring every night about ten o'clock, was ordered three grains of croton-chloral; half an hour after the pain disappeared, and she slept well, which she had not done for some nights before. On the four following nights the pain recurred at the same hour; three grains were again taken, with similar effect. On the sixth night pain not nearly so severe. On the seventh still less so, after which it did not return. On asking the patient if the mixture made her sleepy, she replied, "No, the pain left me, and then I soon went to sleep." At the time when this statement was made to me I had not seen Liebreich's paper on croton-chloral, but I have since found that it is in accordance with his experience, viz., "that in some cases of tic douloureux the remarkable phenomenon is exhibited that pain ceases before sleep sets in."

CASE 2.— Mrs. S., æt. 43, a somewhat hysterical female, suffering from supra-orbital neuralgia, appearing every night about eleven o'clock. To take 2½ grains on appearance of pain, to be repeated in two hours if necessary. Soon after the first dose pain abated considerably; after the second it disappeared entirely, and did not return for some nights; when it did, the medicine again acted as on the former occasion.

CASE 3.—Mrs. W., æt. 31, had been for some days attacked by intense pain in her right temple, commencing soon after she arose from bed, and continuing with more or less severity during the greater

part of each day. When I was called to her it was more severe than it had ever been before. She was directed to take three grains every second hour till relieved. Six grains sufficed, and when I visited her on the forenoon of the following day she was quite free from pain, and said that soon after the second dose she felt so well that she had been able to serve her customers "just as if nothing had ever been the matter." In this case the truth of Liebreich's statement, already alluded to, was well affirmed.

THERAPEUTICAL NOTES.

GONORRHŒA.

Dr. Haberkorn, of Berlin, reports excellent results in both acute and chronic gonorrhœa, with the following injection:—

℞.	Quiniæ sulphatis,	grs. vj
	Glycerinæ,	ʒ ij
	Aquæ,	ʒ vj
	Acid, sulph dilut.,	gtts. v. M.

Sig. Use about a teaspoonful or two as an injection three times a day.

REMEDY FOR CHRONIC HOARSENESS.

In chronic hoarseness arising from thickening of the vocal cords and adjacent membrane, the ammoniated tinctures of guiacum is often a very efficacious remedy. It may be mixed with equal parts of the syrup of senega and a teaspoonful of the mixture given two or three times daily.—*Am. Practitioner.*

THE CANADA MEDICAL RECORD

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FRANCIS W. CAMPBELL, M.A., M.D. L.R.C.P., LOND.

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TO OUR SUBSCRIBERS.

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PERSONAL.

The many friends of Dr. R. A. Kennedy, Professor of Surgery in Bishop's College, will learn with regret that he has been compelled to relinquish all active work, owing to bad health. We believe he will almost immediately proceed to Colorado, where he proposes passing at least the early portion of the winter. He will not return to Montreal before next spring. We are sure he carries with him the warmest wishes of the entire profession in Montreal for his speedy restoration to health.

Dr. George F. Slack—lecturer on Minor Surgery—has undertaken the systematic course of Surgery in Bishop's College, owing to the illness of Dr. Kennedy, the Professor of Surgery. Dr. Slack brings to his aid a very considerable Surgical experience, having been House Surgeon of Charing Cross Hospital, London, for several years.

Dr. George B. Shaw, Professor of Chemistry in Bishop's College, returned from Europe by the Allan S. S. Prussian, on the 22nd of October. He has been absent since the 29th of July.

Dr. W. George Beers, Dentist of Montreal, is at present on a visit to Europe. He recently read a paper before the Odontological Society of London.

Dr. J. B. McConnell, Professor of Botany in Bishop's College Medical Faculty, and in the College of Pharmacy, has been elected attending physician to the Protestant House of Refuge, Montreal. He has also been elected assistant surgeon of the 1st (or Prince of Wales Rifles) Battalion Volunteer Militia of Canada.

Dr. Wallace Clarke, M.D., (McGill College, 1871) has removed from Marquette, Michigan, to Utica, N.Y. We believe his prospects are exceedingly bright in his new sphere of labor.

Dr. David A. Hart (M.D. Bishop's College, 1874,) has removed from Montreal to Bedford, Que. and is, we learn, doing well.

Dr. Cameron, House Surgeon of the Montreal General Hospital, acted as surgeon to the Allan Mail Steamship Sardinian, which arrived in Montreal on the 7th October. This was the maiden trip of the Sardinian, which is the latest addition to the splendid fleet of the Allan line.

Dr. Thomas Johnson Alloway, of Montreal, in conjunction with Dr. J. B. McConnell, has been elected attending physician to the Montreal Protestant House of Refuge.

Dr. Saunders, late Demonstrator of Anatomy in the Royal College of Physicians and Surgeons of Kingston, has commenced the practice of his profession in Montreal.

BIRTHS.

In Montreal, on the 12th October, the wife of Dr. Rourke of a son.

In Montreal, on the 9th October, the wife of Dr. Simpson of a daughter.

Original Communications.

Two Cases of Placenta Prævia. By FRANCIS WAYLAND CAMPBELL, M.D., L.R.C.P., London, Professor of Physiology in the Medical Department of the University of Bishop's College.

(Read before the Medico-Chirurgical Society of Montreal, 5th November, 1875.)

GENTLEMEN:

Of the many complications which may occur to an accoucher in the course of his practice, that which is known by the name of placenta prævia is not by any means the least formidable. The only obstetric horror which can compare to it is convulsions, and this chloroform has, to some degree, robbed of its terror. The suddenness with which one may be called to the scene, and the necessity in the majority of cases for prompt and often unaided action, demands from us a cool head and a steady hand. Fortunately it is a comparatively rare complication, yet its very rarity prevents our becoming familiar with it, and is apt to lull us into security, hoping that such cases will not cross our path. In this fancied security, we may pass years of an extensive midwifery practice, when unexpectedly we are confronted by this terrible complication. In the hope that we may all be able to gather valuable information from the remarks which may follow the reading of this paper, I have hurriedly and under great pressure, as regards time at my disposal, thrown together the following two cases of placenta prævia which are the only ones which have occurred to me in a moderately extensive midwifery practice of thirteen years.

On Sunday, December 22nd, 1872, I was asked to visit and take charge of Mrs. B., who, I was told, anticipated her confinement about the 1st of the year. On visiting my patient I was informed that for the previous fortnight or three weeks, at intervals of a day or two, and sometimes less, she would loose a moderate amount of blood. An examination revealed a moderately soft os uteri, with the placenta situated partially over it. As the patient had not apparently suffered much from the previous discharges, I enjoined perfect and absolute rest, with as light covering as the season of the year would permit. Acid drinks were ordered, and injections of cold water were directed to be employed if the discharge should again occur in anything like profuseness.

On the 23rd I saw her, and found there had not been any return.

On the 24th I was hurriedly sent for, but ascertained on my arrival that although there had been a return of the flow, it was still comparatively insignificant in character. An examination revealed a condition similar to that described upon occasion of my first visit.

On the 25th and 26th of December, she seemed in fair spirits and spoke confidently of going to the commencement of the year.

On the 28th I saw her about eleven o'clock, and she was in much the same condition as reported in the previous two days. At half-past one—two hours and a half after—I found on my slate a message, which had been left only a short time previously, from her husband urgently asking my immediate attendance. I was speedily at her bedside, and found that about twelve o'clock the flow had commenced again—that it had continued to gradually increase in quantity until it became alarming, when I was hurriedly sent for. Before I reached the house, the discharge had ceased, but the quantity lost must have been enormous, for the bed was soaked with blood, and filled with clots, while a large pool or clot of it was on the floor at the side of the bed. As may be imagined the effect on my patient was very marked—features blanched, lips pale and pulse small, and extremely restless. Examination revealed a soft and very dilatable os, and a vertex presentation. I had previously informed her friends of the nature of the case, as well as its danger both to the mother and to the child. I now told them that the time for action had arrived for another such flow might terminate her life. I requested assistance, and my friend Dr. Reddy was soon in attendance. He agreed with me that immediate delivery was imperatively necessary. He kindly administered chloroform, while I proceeded to perform for the first time in my life the operation of turning. Unfortunately I introduced my right hand. I had no difficulty in dilating the os uteri, but I found very considerable difficulty in seizing the feet; a hand invariably coming in my way, and being seized by me in mistake. In about three minutes I found the object of my search, and had no further difficulty in completing the delivery of the child, which was still-born. I attempted the resuscitation of the child, in which I was unsuccessful, while Dr. Reddy took charge of the delivery of the after-birth. The uterus contracted firmly and well, and in an hour I was enabled to leave my patient, very weak it is true, but, all things considered, fairly well. Her convalescence was slow, but in

about a month she was able to go around. Nothing unusual occurred during the time of her in-lying. She, however, was for many months subsequently a victim of the most intense menorrhagia, which, in consultation with Dr. Reddy, was decided to be due to sub-involution of the uterus. For this complaint she was under my care for a length of time, various internal remedies and local applications being used unsuccessfully. I eventually employed Dr. Athill's treatment, viz., the direct application of fuming nitre acid to the interior of the uterus, which was perfectly successful. A report of this portion of the case may be given at a subsequent period.

The Second Case is as follows:

About half-past six o'clock on the morning of the 25th September last, I was requested to meet in consultation Dr. Abbott and Dr. Cotu of Hochelaga, at the house of a Mrs. B——. The distance from my residence was between two and three miles, so that it was between 7 and 8 o'clock before I reached the patient. Dr. Abbott told me it was a case of placenta prævia, and the history of the case confirmed his diagnosis. He had been called several days previously to attend upon her, owing to a very considerable discharge of blood, and had enjoined absolute rest. This advice was only partially acted upon, for on the second or third day after, she undertook to whitewash a ceiling when she was again seized with hemorrhage, and compelled to take to bed. The bleeding soon ceasing, medical aid was not called in, but towards morning (of the 25th of September) the hæmorrhage again recurring, Dr. Abbott was summoned, and this time took Dr. Cotu with him. Both these gentlemen told me that on arrival they made an examination, and were enabled to detect the placenta covering the greater part of the os uteri, which was hard and undilatable. They remained all the night with the patient, and upon two or three occasions there were moderate discharges; but the os uteri still continuing hard, and the patient showing great prostration, I was sent for, as already mentioned, to meet both the gentlemen in consultation. On my arrival I found the patient pale, and almost bloodless, the lips and gums being destitute of the slightest color, skin of the entire body cold, and the pulse about 120 in the minute, and of very small volume. There had not been any hæmorrhage for about two hours. A vaginal examination revealed an os dilated just sufficiently to allow of the introduction of the index finger, by which I was able to detect the placenta covering almost entirely the margin of the os uteri. I was enabled to get my finger to one side of the placenta, and to make out a vertex presentation. On this point I was positive; but neither of my confreres were able to corroborate me. From the unyielding character of the os I felt perfectly convinced that it was impossible to get a hand introduced into the uterus, with a view of performing the operation of turning, and this condition of the os was perplexing, when I considered the very large amount of blood which the patient had lost. Indeed I confess that the situation was most perplexing to me; but, after a few moments' consideration, I advised as follows: — Turning at the moment being in my opinion impracticable, I advised first the administration of drachm doses of Tilden's fluid extract of ergot every half-hour, with a view not of increasing or commencing uterine action, for the patient was entirely destitute of the first sign of uterine contraction, but, if possible, of acting on the muscular coat of exposed arteries, and causing their contraction. I also advised that the vagina should be plugged, and that the patient should have stimulants to promote a certain amount of re-action. It being nine o'clock I was compelled to leave to fulfil an engagement, and I advised Dr. Abbott, who is a practitioner of great experience, to turn at once if the bleeding returned, and the condition of the os allowed. At eleven I returned, to find that, just as I drove up to the gate, the patient had vomited copiously, and at the time of vomiting had ejected from the vagina the tampon, together with several large clots. There, however, had not been any profuse hæmorrhage during my absence. As she showed signs of having rallied somewhat, the skin being slightly warmer, and the pulse having a little more volume, I advised turning at once if the os permitted. Examination now found the os quite soft, and readily dilatable, and I prepared, at the request of my friends, to perform the operation. The family were duly informed of the gravity of the situation. The question now arose in my mind as to whether I should give chloroform, and I confess I again was sorely puzzled, but I decided to give it in the smallest possible quantity, so as to lessen the shock, as far as was possible. In the weak condition of the patient's heart I did not consider it wise to push it to full dose. Previous to its administration a wine-glass of brandy was given in water. Having in mind my difficulty in seizing the feet in my first case, caused by my using my right hand I passed my left hand into the vagina, and then into the os, which was extremely

soft, and was dilated with ease. I then directed it to one side and over the projecting placenta, and without the slightest difficulty was able to seize both feet and bring them down, and complete the labour, the whole operation not occupying over a minute and a half. The child, a male, was still-born, and as it did not show the slightest cardiac action. I presume it had been dead several hours. Dr. Abbott took charge of the after-birth which was removed in a few minutes after the child. Dr. Cotu had seized the uterus through the abdomina walls, with a view of ensuring its contraction. The bleeding after the removal of the placenta was not extreme, indeed that it was not profuse I can only attribute to the action of the ergot, for on introducing my hand I found that the uterus had not made the slightest attempt at contraction; indeed its condition was unlike anything I had previously met with in my midwifery experience, and I can only compare my sensation on introducing my hand into it, as if I had introduced it into a good-sized hat. I at once withdrew my hand, and taking a good-sized piece of ice, I introduced it into the uterus, which quickly contracted and expelled my hand.

As might have been anticipated my patient showed considerable signs of exhaustion, but the pulse was perceptible, and she was, in about a minute after the birth of the child, thoroughly rational. I accordingly commenced the administration of brandy, with drachm doses of fluid extract of ergot every five minutes, with the intention of continuing it till re-action set in, which period unfortunately never arrived. About twenty-five minutes after the operation, I noticed she swallowed with difficulty, and that her features were pinched with profuse cold perspiration, and, fearing that hæmorrhage had recurred, I made an examination only to find that there had been complete relaxation of the uterus, into which my hand entered with ease. There was no external sign of bleeding, and no sensation of hæmorrhage was communicated to my hand; but with a view of again producing uterine contraction I introduced ice into it, but in spite of all my efforts it remained relaxed, not making the slightest attempt at contraction, till death closed the scene, which it did in about thirty-five minutes after the birth of the child.

The issue, though of course not unexpected, has caused me much concern, as to whether, in the weak condition in which my patient was the decision which I made to turn was the correct one or whether it would not have been better for me to have adopted the plan suggested by Dr. Radford, and warmly espoused by the late Sir James Simpson, viz.,—to introduce one or two fingers through the os, and into the uterus, as far as possible, sweep them rapidly around, separating all the placenta within reach, then rupture the membranes, through the placenta if necessary, bring on labour by ergot, and leave the conclusion of the case to nature. If I could have brought myself to believe that the cause of the flooding was due to an excessive growth of the placenta I might have suggested it; but, having been taught my midwifery principally from Churchill I have always believed it due to that dilatation of the os uteri which takes place during the last months of gestation, severing the connection between the uterus and the placenta. I felt, therefore, that, all things considered, my duty was to act in the usual method, and to turn.

Surgical Cases, *Reports of*, *by* John Bell, A.M., M.D.

Case I.—*Fracture of Sternum.*

On the 13th of August, 1875, Mrs. McG., a very stout lady, over 20 stone in weight, slipped from the top of an outside stair which had no railing, and fell about five feet to the ground, turning a complete somerset in her descent. Her left hip struck the hub of a cart, and the force of the fall was thrown on the right shoulder. She wore a broad and strong abdominal supporter. Dr. Bessey had seen her a few minutes after she fell, and had discovered a fracture of the sternum. I saw her shortly afterwards, and found the fracture to have taken place between the insertions of the second and third ribs, the lower part projecting forward beyond the upper fragment. Distinct crepitus was obtained. The patient was suffering severely from the shock and pain produced by the fall. There was considerable dyspnœa and her countenance presented an anxious and congested or cyanosed appearance. Crepitus was also felt about the middle of the sixth rib on the left side, but from the difficulty of making a careful examination, and from the pain caused in attempting it, the exact situation of the fracture was not, determined. A hypodermic injection of one-third grain morphia mur., in solution, greatly relieved the extreme general uneasiness, and pain in the chest hip and thigh. She lay most comfortably on her back, but it became necessary to turn her on her sides, on account of a tendency to congestion of the back of the lungs. When lying on her side the

opposite arm was passed through a sling suspended from the ceiling, thus removing the weight of the upper extremity from the chest, and giving much additional comfort. Distressing vomiting, with exhaustion, was relieved by champagne. The weather at this time was oppressively warm. An occasional enema or dose of castor oil to remove constipation, when required a dose of morphia *per orem*, or by hypodermic injection to relieve pain or promote sleep, with now and then a hot turpentine stupe to the chest, constituted the medical treatment of the case until the third week, when a patch of erysipeloid inflammation appeared on the inside of the right thigh and inguinal region, for which tr. fer. mur. and ac. nitro-mur. dil. internally and a local lead lotion were prescribed. In the fifth week the patient was able to sit up in an easy chair, and in a few days after she could walk about the house with comparative comfort. As no means could be used to keep the fractured ends of the bone in position, the lower portion still remains more prominent than the upper, but the partial dislocation gives no trouble whatever.

Case II.—*Subaponeurotic Cephalematoma.*

On the 20th of August, 1875, the infant of F.L., five months old, fell and struck the right side of its head on the floor. A very large swelling gradually rose over the right parietal bone. On the 23rd, I saw the child and applied pressure by means of cotton wool and a flannel bandage over the tumor, which was fluctuating but not pulsating. Thinking that it would be a hopeless task to try to cause absorption of such a large quantity of effusion without suppuration supervening, I emptied the swelling the next day with a trocar and cannula—the blood being quite *fluid*. Pressure was reapplied, but on the following day the tumor was as large as ever. It was again emptied through a small cannula and injected with a mixture of tr. iodi, acid carbolic and aq.—the contents this time being bloody serum. The wool and bandage were readjusted, but the sac again partially filled. It was only temporarily, however, as the child was brought in from the country, where its parents lived, in ten days, and no sign of the tumor remained—its cavity was obliterated and its walls perfectly united. I saw a severe case of this kind some time ago in a young infant, which had been caused by the forceps in its delivery. I pressed out the partially coagulated blood through an incision, but the child died from its injuries before the reparation of the lesion of the scalp took place. In these cases ERICHSEN (Ed. 1860), says, "Under no circumstances should a puncture be made or the blood let out in any way." SYME (Prin. Surgery, 1866.) says, "If the quantity of fluid effused in the first instance is very large, or does not show signs of being absorbed, it may be well, in order to hasten the cure and prevent suppuration, to evacuate the cavity of its contents and then carefully press its sides together."

Case III.—*Double Gluteal Abscess.*

About the 18th October, 1875, Mrs. G——e, noticed that her child aged three years, was not so bright and playful as usual, and on the 20th, when I saw the child, her mother observed that her hips above the great trochantus were swollen and somewhat painful. The child was still walking about but kept her feet wider apart. Directions were given to keep the child in bed and apply hop and linseed-meal poultices to the tumours, which were afterwards painted with tr. iodi and tr, opii On Nov. 1st deep seated fluid could be detected by fluctuatiou on the left side, and not having an aspirator I drew out about half an ounce of thick pus with a long hypodemic needle and syringe. Thinking that there was pus in the smaller hard lump on the right side, I plunged the needle down into it and withdrew one draw of pus, after which the swelling gradually disappeared. The cavity on the left side, however, refilled, and was again emptied a few days after, the contents being clear serum with a few flocculi of pus at the last. After this the swelling disappeared and the child ran about as nsual.

1 Beaver Hall Terrace, Nov. 9, 1875.

Progress of Medical Science.

MATERIA MEDICA AND THERAPEUTICS.

The Continued and the Frequent Dose.

Dr. EDWARD H. CLARKE, late Professor of Materia Medica in Harvard University, calls attention to this subject in an interesting article published in the *Boston Medical and Surgical Journal*, for August 5, 1875.

Doses of medicines he appropriately considers under four distinct heads or classes, namely: 1, single doses; 2, continued doses; 3, frequent doses; 4, toxicological doses. The first and last of these, or the single and the toxic dose, are the doses given in treatises on materia medica, and are recognized as representing the therapeutic and poisonous action of any given drug. It is unnecessary to dwell upon them, for they are universally understood. But the bare statement of what is the legitimate single or

nverage toxicological dose of an article like opium, for instance, gives no adequate or intelligent notion of what the continued or frequent dose of the same drug is; nor does it give any adequate or intelligent notion of the physiological action and consequent therapeutical power of its continued or its frequent dose.

Let us consider first the *continued dose*. By this is meant the administration of a drug in such a way that the elimination of one dose shall not be completed before the absorption of the following dose has commenced.

The single dose is an appropriate quantity given once or oftener, without keeping it continually in the blood. The therapeutical value of these doses and the physiological difference between them are of great importance.

Let us look at some illustrations of this difference and value.

Ammonia and its salts "readily enter the blood, and must to some extent increase its alkaline reaction; but from their volatility and high diffusion power they are rapidly eliminated, and hence their action on the blood and the organs of the body is a very transient one." The elimination of a single dose of carbonate of ammonia is practically completed in an hour or two after it is administered. Its physiological action is correctly stated by the United States Dispensatory to be "stimulant, diaphoretic, antispasmodic, powerfully antacid, and in large doses emetic." In consequence of this action, it is largely used in depressed conditions of the vital powers. This is the well-known action of a single dose or of a few doses given near together, after which the system is freed by elimination from the drug. No change is produced in the quality of the blood. If a continued dose of ammonia is given, that is, if it is given so often, say every hour for several days, that the blood is continously charged with it, a very different set of phenomena from those just described appear. "When ammonia or its carbonate is administered"—in this way—"for some time to animals or man, the effect is to modify the blood-corpuscles; they become easily soluble, crenate at the edge, many-sided, colorless, transparent, collapsed, and loosely agglomerated, but not in rolls, and the blood when drawn, or after death is absolutely fluid or loosely coagulated."* These phenomena were observed by Dr B. W. Richardson, of London. They closely resemble the changes in the blood which occur in patients suffering from typhoid and typhus fevers. Hence it appears that the single dose of ammonia produces rapid and effectual stimulation of the heart, while the continued dose of the same article alters the quality of the blood, and notably of the blood-corpuscles. The single dose exerts a therapeutic, the continued dose a toxic action on the economy. It is unnecessary in this presence to dwell upon the obvious therapeutic inferences that follow from these data, at least so far as ammonia is concerned.

* Practicable Therapeutics. By Edward John Waring. American edition, p. 61.

Gallic acid is another illustration of the difference between the single and the continued dose. This acid is rapidly eliminated. Physiologists tell us that a couple of hours after it has been swallowed, it has practically left the system, by way of the kidneys, to such an extent that it exerts no rppreciable action upon the blood after that length of time. Gallic acid has a well-deserved reputation for controlling certain forms of hemorrhage. Suppose it is given in single doses of ten grains, more or less, three times a day, which Dr. Clarke apprehends is the usual method of administration, the blood will be subjected to the restraining action of the acid only about six hours out of the twenty-four; not long enough to hold steadily in check a hemorrhagic disposition. Suppose now, that instead of the single, the continued dose is administrated, by which the ratio of elimination to absorption is constantly regarded, and the blood kept continuously charged with gallic acid; the result will be a continuous action upon the blood not an intermittent one. It is needless to point out the fact that continuity of action is very sure to give rise to phenomena that will not follow intermittence.

No drug exhibits in a more striking light both the physiological and the therapeutical differences between single and continued doses than alcohol. The partial, confused, and incomplete recognition of these differences by various observers and experimenters, who have examined and described the physiological action of alcohol, goes a great way toward explaining the various and often discordant results at which they have arrived. We learn from the experiments of Messrs. Lallemand, Perrin, and Duroy, as well as from those of Drs. Anstie, Parkes, Smith, Binz, and others, that the disappearance of a single dose of alcohol from the system, either by elimination from it or combustion in it, or by both processes, practically takes place in about six or eight hours after its ingestion. Traces of alcohol may be found in the blood and in the excreta for a much longer period than this; but so much of it leaves the system within eight hours, that what remains of any single dose beyond this length of time has no real physiological value. A person who takes a dose of alcohol, in the shape of wine or other alcoholic liquid, once in each twenty four hours, subjects his organismto the action of alcohol about one-third of that time, and leaves it free from that action about two-thirds of the same period. A person who takes what is known in non-scientific language as an "eye-opener" in the morning, wine with his dinner or lunch, a digester in the afternoon, and a "night-cap" on retiring, takes the continued dose of alcohol. His blood is continously charged with alcohol to a greater or less degree. There are phthisical patients who imitate this method of ingesting alcohol, and take a daily continued dose of it, keeping their blood charged with it more then two-thirds of the time.

Alcohol taken in a single daily dose, by which the blood is practically free from it more than two-thirds of the time, and alcohol taken in a daily continued dose, by wkich the blood is practically charged with it more than two-thirds of the time, are sub-

stantially different drugs, which produce different physiological phenomona, and are or should be employed for different therapeutical ends. This is not the time, nor does it fall within the scope of this paper, to describe these differences in detail. It is sufficient for my purpose to indicate their existence as illustrations of the single and the continued dose.

The Bromide of potassium affords another and most pertinent illustration of the physiological and therapeutical action which the single and the continued dose of an article may produce. Dr. Clark pointed out these differences in a compartively recent monograph on the physiological and therapeutical action of the bromide of potassium. (1) Illustrations of single and continued doses, and of the therapeutical importance of recognizing them as factors in the treatment of disease, might be multiplied indefinitely; but enough has been said to call attention to them and to emphasize their importance. It was impossible to recognize and use them as separate therapeutic factors till physiological observation and experiment had discovered the time and the method of the absorption and elimination of drugs, and the ratio of the former to the latter; nor can the practitioner apply them clinically till he knows, at least with approximate accuracy, the way every article he uses gets into and out of the system, the length of time it remains in the system, and its behavior while there.

The administration of medicines to the sick, without regard to the different and often opposite results, physiological or therapeutical, that follow the single and the continued dose, is both unsatisfactory and unscientific. It is unsatisfactory, because it fails to secure the legitimate action of medicinal agents. It is unscientific, because it ignores some of the most important physiological conditions upon which scientific therapeutics rest. The time has come for the clinician to recognize and use these and other phenomena of the *modus operandi* of drugs which the physiologist has discovered and whose accuracy he has demonstrated.

Secondly, the *frequent dose* is the giving of a medicine so as to impart to the organism some one or more of its actions, whether primary or secondary, with great rapidity. It is hitting blow after blow in quick succession, upon some organ which it is desirable to affect, in accordance with evident indications with rapidity and power. It is usually, perhaps always, some action of a drug, manifested soon after its absorption, which it is desirable to obtain, and which can be obtained by the frequent dose. Obviously the administration of the frequent dose is limited by the physiological behaviour of the system under its influence. After a certain period the frequent dose is equivalent to a full single dose or to a toxic one.

The action of opium almost immediately after absorption illustrates the frequent dose. One of the earliest physiological actions of opium after its ingestion, rarely after subcutaneous injection, is stimulation of the nervous system, and of the circulation. This is fully recognized by obstetricians, who advise its exhibition as one means of controlling post-partum hemorrhage. Stimulation is a primary effect of opium that soon passes over, the length of time varying with the quantity given and with idiosyncrasies of patients, into an opposite condition. The administration of an appropriate quantity of opium every five, ten, or fifteen minutes, that is, the frequent dose of it, will prolong and enhance its primary stimulant action. How desirable it sometimes is to prolong the primary stimulating action of this invaluable agent, Dr. Clarke need not remind those who hear him.

The physiological action of aconite upon the human economy illustrates the same principal. Fleming's admirable observations upon aconite have taught us the powerful sedative influence that five drops of the tincture of the root exert upon the system. If instead of five drops in a single dose, half a drop is given every half-hour ten times, or one drop every hour five times, a different physiological and consequently a different therapeutical result is attained from that of the single dose of five drops. In this case a less depressing sedative action is obtained by the frequent than by the single dose.

The object of this paper will be attained if it succeeds in bringing clearly before the profession the great therapeutical power that results from the physiological adaption of doses to the processes of absorption and elimination, and especially if it succeeds in calling attention to the power of the contained dose.

1 The Physiological and Therapeutical Action of the Bromide of Potassium and Bromide of Ammonia. By Edward H. Clarke, M.D., and Robert Amory, M.D.

THE ALIMENTATION OF *INFANTS*.

A paper read by Dr. Dawson at one of the New York Medical Societies (*New York Med. Record*, June 5), contains some very useful remarks upon this important subject. He commenced by exhibiting the intestinal canal taken from a child seven months old, in a state of extreme softening, induced by gastro-intestinal irritation, which had been going on for four months. After alluding to the fact that a fourth of the children, born die before they attain their fifth year, he stated his conviction that *faulty alimentation is the great cause which induces the gastro-intestinal irritation which carries off the bulk of them.* The composition of the mother's milk as well as the condition of the digestive apparatus, show how well these are adapted for each other; for at first there is no secretion from the glands capable of digesting the starchy elements of food, while the size of the liver, and the size and shape of the intestinal tube, show that food is only to be retained for a short time, and, therefore, should be of quick and easy digestion;—also showing that *fluid*, not solid, animal, nor vegetable, food is that which is suitable for the infant. If these indications be neglected, food is very liable to give rise to vomiting, gastro-intestinal catarrh, and other disorders which ultimately prove fatal.

It is, perhaps, difficult to decide on the quantity of milk proper for an infant; but, at all events, the child

should not be induced to take more than sufficient to satisfy its appetite, after which it should at once be removed from the breast. Simple as this rule is, it is constantly neglected, every cry of the child being thought to denote hunger, and to call for a fresh supply. Too large quantity, and too frequent repetition, should, however, be carefully avoided, for over-distention of the stomach is almost as bad as giving indigestible food. A positive proof of such over-feeding is the eructation of the milk soon after suckling; although this, in some rare instances, may be due to some fault in the milk. Chronic vomiting and gastro-intestinal disorders can very commonly be traced to this over-suckling, or to too great frequency of suckling. Upon this last point there is much difference of opinion, although it is generally thought sufficient to give the infant the breast every two or three hours during the day, and once or twice during the night—the milk being extremely liable to cause colic, diarrhœa, etc., when given oftener in the night. When called to a case in which, owing to over-feeding, vomiting and intestinal disturbance have been going on for some time, giving rise to emaciation, etc., the urgent indication is to give the stomach rest. All medicine and alimentation should be stopped when the case is urgent, giving, perhaps, a teaspoonful of cold water every fifteen or twenty minutes. The stomach in this way should have absolute rest for twenty-four hours, and, when nursing is resumed, the child should suck only a few mouthfuls at moderate intervals during the next eight or ten days, when it will very frequently be found that the normal quantity of food can be taken without trouble. Constipation, as well as diarrhœa, is very often due to over-suckling or too frequent nursing. The stomach is over-taxed, and the food, instead of being finely coagulated, comes into contact with old coagula, and the coagula then formed are large and hard, and if not thrown up by the stomach pass into the intestinal canal little or not at all changed; and there, as hard, dry masses, give rise to constipation. It is an accumulation of such curds that sometimes gives rise to intestinal catarrh, which may finally terminate in severer forms of intestinal disease, and is probably one of the frequent causes of cholera infantum. Abnormal acidity of the stomach may sometimes be the cause of the formation of these abundant coagula, but that is exceptional.

If an *artificial diet* be judiciously selected, there is no reason why a child should not thrive as well upon it as upon the breast; but to this end it must consist of a liquid food possessed of heat, and fat-producing properties. Cows' milk should in general be preferred to that of other animals, and, when properly prepared, may answer all purposes. To this end it must be diluted, and for this purpose water is usually employed. But in far the greater number of cases mischief results from this, for the addition of water does not improve the digestibility of casein, inasmuch as it does not dilute it; and when milk so treated is taken into the stomach, the water is soon taken up, leaving the casein unchanged. Nor does the addition of sugar make the coagula easier of digestion, while skimming the milk deprives it of one of its most important constituents. Inasmuch as the mother's milk contains proportionally more fat than other milks, it may be that the finer coagula produced by it are due to the presence of this fat, and it would be better to use other milk from which casein had been removed than that which had been deprived of its cream. The admixture of farinaceous-substances also leads to disastrous results. Barley-water, however, is an article that contains so small a quantity of starch that it may be advantageously employed for dilution—good cows' milk diluted with from one-third to one-half of barley-water forming one of the best articles of food that can be used for infants when it is necessary to bring them up artificially. When it cannot be procured, oatmeal may be substituted with advantage. By these a real dilution of the casein is produced, rendering the coagula much finer and more nearly like those produced in human milk.

In the discussion which followed, Dr. Joel Foster expressed his belief that almost as much mischief is done by over-feeding as by under-feeding infants. Attached to the New York Infant Asylum, he has found it necessary to use a substitute for breast-milk owing to the difficulty of getting a supply of this. For this purpose he employs cows' milk, which he allows to stand until the cream begins to rise, then taking the upper portion and diluting it with barley-water. He is very particular in giving it at regular intervals, and at a temperature near that of the body, for, when given below this, it may readily produce gastro-intestinal disturbances. It has been found that milk taken directly from the cow does not do for children nearly so well as when allowed to stand for about two hours, when a partial separation of the cream has taken place, and then taking the upper portion of the milk. In this way more fat and less casein is obtained. Dr. Messenger urged the propriety of thoroughly cooking whatever article is used for diluting the milk, and he always insists that the barley-water should be boiled for three or four hours. Dr. Lewis Smith remarked, with reference to the use of farinaceous food, that up to the third month the salivary gland and pancreas are present only in a rudimentary state, and consequently that the fluid suited for the digestion of starchy matters is absent; but it is also probably true that starch is not so irritating as is the undigested casein. He has been accustomed to employ the upper portion of the milk, after it has stood for a short time; and he prefers to use as a diluent some article that has been changed, into dextrine or glucose, and recommends Liebig's food. He does not think that sugar should be added in warm weather when diarrhœa is present; but if there is constipation he gives it in the form of sugar of milk, which is the best. He is decidedly of opinion that many deaths occur among children from the fact that mothers regard numerous stools as necessary while the child is teething. Dr. Robinson suggested that the weight of the child might determine whether it is receiving sufficient food or not.—*Med. Times & Gaz.*

MASSAGE.

Massage, or, in plain English, shampooing, has long been a recognized procedure in medical treatment, though until lately it has seldom been employed in a careful or systematic manner. The quacks, "bone-setters," "rubbers," and the like, have enjoyed nearly a monopoly of the practice until recently, when the subject has been brought once more to the notice of the profession in a series of able articles in various foreign journals.

It is the aim of the present communication to give, in a succinct form, some account of the various methods of employing massage, the diseases in which it has been found most efficacious, and the different modifications of the procedure most applicable to each class of affections. The writer is indebted for most of the facts embodied in this article to an admirable résumé of the recent literature of the subject by W. Berger.*

The various manipulations included under the term "massage (from *μασσω*, to knead) comprise stroking or friction (streichen effleurage): rubbing (reiben, massage à friction); kneading (kneten, pétrisage); percussion (schlagen, klopfen, tapotement) Any of these may be employed separately, or several in conjunction.

The first, stroking, is performed by passing the hand gently and slowly over the surface desired to be acted upon, the flattened palm pressing against the skin, and the motion being in a direction from periphery to centre,—that is, in the direction of the venous and lymphatic currents.

Rubbing is a form of massage more frequently employed than stroking; it is similar in every respect, excepting that the movements are more vigorous and are not confined to a single direction. Previous to rubbing, all hairs should be removed from the part to be operated upon, lest irritation and the formation of acute pustules should result, which, of course, would put an end to massage for the time being. Fat or oil is sometimes used with advantage in rubbing, and the fingers should be made to follow all the inequalities of the surface, being employed with an amount of force considerably greater than that used in stroking. Rubbing should be practised with both hands simultaneously; one may be moved in a horizontal or circular direction, while the other is impelled vertically. Perfect quiescence of the part operated upon is not necessary, nor even desirable.

Kneading is performed by seizing the part in the hand, raising it from subjacent tissues, rubbing, rolling, or kneading it between the palms, or moving it to and fro on the parts beneath. These movements are to be alternated at times with brisk friction of the surface.

Under favorable circumstances massage should be practised twice daily, with an interval of three to four hours between the manipulations. More frequent use of the method is sometimes advisable, but is prevented by want of time. The length of time occupied by each "sitting" may vary from six to ten minutes on an average.

Massage, when used for the first time in a case, may give rise to more or less pain, which, however, ceases with the completion of the sitting. The feeling ordinarily experienced is that of general warmth, pliability, and invigoration of the part operated upon occasionally: while the skin is reddened, its temperature increased, and occasionally blue, green, or yellow discoloration is noticed. This discoloration does not in any way affect the progress of the case, and, in fact, disappears after repeated manipulations.

Among the advantages claimed for massage are these: it promotes absorption of effused material, accelerates the circulation, assuages pain, and reduces temperature.

The *rationale* of its effect in these directions may be explained, at least in part as follows: Stroking and rubbing from the periphery towards the centre lead to a direct pressure upon the interstitial lymph-canals, and thus aid in carrying away the products of effusion. In addition, an increase in the rapidity of the vascular current is gained, and the rubbing excites the nerves (at least at first) in such a way as to cause contraction of the blood-vessels themselves. When the inflammatory process has gone a step farther, and stasis exists to a certain degree in the arteries, the stroking movement first arrests the flow for a moment and sends the arterial current backward, while accelerating that in the veins. Then, when this momentary pressure is removed, the vessels are filled again, the blood moved by *vis a tergo* overcomes the stasis, and the circulation becomes more active. Towards the end of the sitting a certain amount of hyperæmia of the vessels in the manipulated parts of course occurs. This, however, never amounts to actual stasis, since exit is made easy through the thoroughly emptied capillaries and veins, the muscular movements usually made by the patient after the manipulation aiding directly in promoting absorption. A more active circulation being now established in the whole vascular region, the capacity of the capillaries is increased, and absorption is also aided by diffusion. Massage also brings about absorption by its direct influence upon the lymphatics and capillaries: the swelling in the affected part goes down, the sensory nerves are freed from the tension and pressure to which they had been subjected, their irritability is abated by further manipulation, and the temperature of the locality operated upon is lowered.

In chronic inflammations, particularly in and about the joints, vigorous circular rubbing comes into play in addition to that from periphery to centre. This crushes the newly-formed blood-vessels in the hyperplastic tissues. The fluid portions of the extravasation being drained away by the pressed-out veins and lymphatics, the more solid portions deprived of nourishment proceed to retrograde metamorphosis, and are also gradually absorbed. The characteristic fungous granulations of chronic joint-inflammation are removed in a similar manner. Thus the active circulation kept up not only by frequently-

* Schmidt's Jahrbucher, Bd. clxvi, 1875, p. 155.

repeated manipulation but also by active muscular movements aids directly in causing absorption of effused material.

The various manipulations of massage act directly upon the nerves, causing at first increased sensibility, later diminishing this so that it may act in allaying morbidly increased irritability of the nerves.

The various manipulations connected with the procedure under consideration act directly upon the muscles. For the excitation of contractions in paretic or paralyzed muscles stroking and percussion are important means, and kneading has been proved to act powerfully in increasing the vitality of paralyzed and atrophied muscles.

The indications for massage are found principally in those conditions of disease in which hyperæmia, extravasations, exudations, hyperplasiæ, condensation and thickening of the tissues, or adherences between sinews and their sheaths, exist. Especially is massage indicated when the products of inflammation are such as may enter the circulation without prejudice.

In diseases of the joints, it is particularly useful in the acute and chronic forms of synovitis, inflammations and extravasations in the neighborhood of joints and contractions, so long as these do not depend upon bony anchylosis. Among diseases of the muscles, it is particularly indicated in inflammations and rheumatic affections.

Among nervous affections, it is particularly indicated in neuralgias and paralyses of peripheral origin; in these massage has been proved most useful.

Massage has been used in dyspepsia to give tone to the muscular walls of the stomach, and to increase its secretion. It has also been employed with success in skin-diseases, accompanied by exudation and thickening of the corium, and finally in the formation of abscesses and mastitis.

Massage offers no prospect of success when the pathologico-anatomical nature of the morbid change itself places an invincible hindrance to the attainment of a favorite result. Thus, in diseases of the joints involving the bones or cartilages, primarily or secondarily; in ostitis, osteomyelitis, or arthritis deformans; in the later stages of anchylosis with enlargement of the bones or organized connective-tissue growth; in disease of the joints with fractures, either extending into the articular cavity itself or in its immediate neighborhood, and in affections of the joints attended with suppuration, it is naturally contra-indicated. Further, in advanced muscular atrophy of central origin, in neuralgias of central origin or dependent upon constitutional causes, nothing can be done by local treatment.

The general condition also may contra-indicate massage under certain circumstances; in many complicated acute and chronic diseases an improvement of the general condition must first be awaited before massage can be employed.

The indications for the use of the several manipulations are different according to the method of action of the latter.

Stroking aids in the removal of lymph and inflammatory products by the vascular system. It is, therefore, useful in acute cases; for instance, in acute synovitis with recent inflammation of the soft parts, especially if these are red, swollen, hot, sensitive. Occasionally in using stroking it may be necessary to continue the manipulation one-half to one hour, though a shorter time suffices in most cases. Under the influence of the operation the pain usually diminishes, and the swelling and heat subside. In chronic cases demanding the more violent use of other manipulations stroking may be employed towards the end of the sitting to guard against the swelling so apt to follow a severe rubbing.

By means of rubbing, newly-formed vessels are crushed and the tissues placed in a position to react actively, the circulation aroused, and absorption aided. It is principally indicated in chronic synovitis and peri-synovitis, effusion into the sheaths of the tendons, chronic infiltration of the muscles, and similar affections.

Kneading is to be employed in inflammatory swelling of the muscles, in chronic muscular rheumatism, in "ischias," where the muscles of the neighborhood of the nerve are often affected; also in fatigue of the muscles, in order to avoid the occurrence of myositis.

Percussion is used at times for the purpose of exciting nervous action, at other times with a view to allaying it. In neuralgias this form of massage may be employed with the aid of a percussion-hammer of rubber or ivory.

It is easily understood that the particular kind of massage to be used in one case or in one class of cases may be quite different from that which would be appropriate under other circumstances. Thus, in articular affections the lighter methods are to be used when the trouble is a superficial one, the more forcible methods when, as in hip-joint inflammation, the disease is deeply seated.

The soft tissues about the diseased joint in articular affections must also come in for their share in manipulation, for by this means the neighboring vessels will be influenced, partly in a direct manner as heretofore described, partly in an indirect manner through the vaso-motor nerves.

In the treatment of articular affections massage is superior as an instrument of resorption to the bandage, for the latter compresses the subcutaneous veins, causing stasis and even œdema, while massage does not allow of stasis. It was formerly believed that massage could only be used in chronic articular affections; but it is now known that the milder methods may be used to advantage even in acute cases.

Massage has been found useful in acute and chronic synovitis serosa, and in peri-synovitis. In the hyperplastic forms of synovitis it is to be used in a more forcible manner, particularly when the perisynovial parts are much thickened.

In these cases the rationale is, according to Kiör as follows. The newly formed connective tissue changes into cicatricial tissue; by the contraction of the latter the lumina of the newly-formed blood-vessels are closed, their walls become atrophied, the more remote vessels are more or less emptied of

their contents and their elastic walls contracted. At the same time, by continued manipulation the thinner blood-vessels are crushed. Of course, manipulation so rough as to produce this effect involves a certain amount of acute inflammation and exudation, but the latter is rapidly absorbed, while the torn vessels become atrophied. It is understood that in manipulations of this kind care must be taken not to excite too much inflammation. This may be avoided by only operating upon a portion of the deceased structure at any one sitting.

In synovitis pannosa massage has proved useful, and also in chronic, and even acute, articular rheumatism. Of course, in the earlier stages of the latter, massage will do no good, but in a later stage, when the trouble really seems a local one, gentle rubbing and manipulation have frequently proved of the utmost service.

In affections of the muscular system, myositis, rheumatism, and inflammation of the sheaths of the tendons, massage is highly spoken of by various writers. In writer's cramp it has been used in connection with injections of strychnia; but the good effect in these cases was in all probability due to the latter.

In various affections of the nerves, neuralgias, and particularly ischias, where tumor or degeneration is not the cause, massage produces the happiest effect. It is in the latter class of cases that kneading and percussion are particularly useful. In certain peripheral paralyses massage has often acted very favorably, and in these cases, also, percussion is the preferable form.

In telangeiectasis Metzger has used massage with good effect. The method of its employment is as follows. A finger of one hand is laid upon the efferent vein, thus causing the capillaries of the affected part to become filled with blood. These are then suddenly squeezed together with considerable force, with the effect of rupturing some of the capillary walls. The process is repeated at subsequent sittings, proceeding from the periphery towards the centre. The rupture of the capillaries thus brought about results in extravasation of blood, and subsequently in insignificant inflammation. The extravasation disappears spontaneously, but its recession may be hastened by rubbing in the direction of the lymphatic current. The inflammation is not likely to be serious if only a portion of the growth is operated upon at a time.

Metzger has used massage to prevent the formation of abscesses, and this method has also been employed in mastitis, in bony tumors, in corneal exudations, and leukoma. It has been suggested in affections of the uterus.

What the actual value of massage as a remedial agency may be it is difficult as yet to say, but in the hands of qualified persons it undoubtedly must prove a valuable adjuvant in many cases of chronic and intractable disease. It should, however, be taken entirely out of the regions of charlatanism, and intrusted only to those educated to use it rightly. There is a certain amount of physiological and anatomical knowledge necessary for the employment of the method, but not more than can be acquired by a skilful and intelligent nurse; and it is to be hoped that in time the ability to perform massage will be one of the recognized accomplishments of a properly educated attendant upon the sick.—*Philadelphia Medical Times.*

THE MANIPULATION OF ADHERED PLACENTA.

The following directions are given by Dr J. G., Swayne in the British *Medical Journal*:—

If the cord be tightly encircled by the os uteri, the constriction should be overcome by insinuating the tips of the fingers into the os in a conical form; whilst the right hand all this time is making counter-pressure upon the fundus uteri, so as to steady that organ. Should these precautions be neglected, the connections between the vagina and the uterus may be put very injuriously on the stretch, especially if the circular fibres of the os oppose much resistance to the introduction of the hand. As the tips of the fingers pass through the os, they should be gradually expanded and separated from one another, until, by sheer fatigue, they overcome the contraction of the uterine fibres, so as to allow the passage of the entire hand into the uterus. When this is accomplished, the next step is to place up the hand sufficiently high to reach the placenta. The distance which it has to pass before this can be felt will depend very much upon the position of the placenta and the degree of contraction of the uterus. If the placenta be attached, as it usually is, to the fundus uteri, or if the uterus be in a flaccid condition, it will be necessary to pass the hand much further than when the placenta is attached lower down, or when the uterus is well contracted. I have sometimes had to pass the hand quite into the epigastric region, in search of a retained placenta. As soon as the placenta is arrived at, the fingers should be spread out, taking care not to entangle them in the membranes, until the circumference of the placenta can be felt. If any portion of the circumference be already detached, the tips of the fingers should be cautiously inserted between this portion and the inner surface of the uterus, and the placenta gradually peeled off. All this time, the right hand, externally applied, steadies the portion of the uterus from which the left hand is detaching the placenta, and enables the accoucheur to estimate the exact thickness of the uterine walls included between the hands, so that he can avoid digging his nails into the substance of the uterus. There is sometimes considerable danger of such an accident when the adhesions are very firm and close. There is also considerable danger of leaving portions of placenta behind: a risk that one can readily comprehend in such cases as those described by Dr. Ramsbotham, who states: "I have opened more than one body where a part was left adherent to the uterus, and where, on making a longitudinal section of the organs, and examining the cut edges, I could not determine the boundary line between the uterus and the placenta,

so intimate a union had taken place between them." In all such difficult cases, it will be necessary to sever the adhesion by using the finger-nails with a kind of sawing motion from side to side. The tips of the fingers are placed in a line like the edge of a saw, keeping the palm toward the placenta and the knuckles toward the uterus, and the sawing motion is continued very slowly and gradually, until the entire placenta is separated and falls into the hollow of the hand. This proceeding sometimes requires a great deal of patience, and is exceedingly tiring: but the accoucheur should take his time about it, working with both hands, and making his ground sure as he goes on, and not withdrawing his hand with the placenta until he is certain that he has brought away every part of it that can be safely separated. It is very seldom, comparatively, that the adhesions are so firm that this cannot be done. Should this, however, be the case, we have a choice of evils: either to run the risk of causing secondary hemorrhage and septicæmia by leaving portions behind, or of causing metritis from injury to the uterus in bringing them away. For my own part, I think that the last of these two courses is the least dangerous, except in very unusual cases. I have notes of only two instances in which it was necessary to leave any portion of consequence behind. Fortunately, in both, the pieces were expelled on the third day, without having caused any untoward symptoms, although in one the piece expelled was as large as a hen's egg. Of course, in all such instances the dangers of septicæmia should be guarded against, as much as possible, by the frequent use of vaginal injections containing Condy's or other disinfectant fluids.

CROUP AND DIPHTHERIA.

The eminent surgeon, M. James Spence, Professor of Surgery in Edinburgh University, has the following remarks in a recent address:

In speaking of operations in croup, I have used the terms simple and diptheritic croup; and I have done so advisedly, because, whilst the average results of my operations have been as good in the one disease as in the other, I consider them as essentially different diseases, and I do not believe that an extended experience would give the same amount of success in diptheritic as in simple croup. It has been with no small amazement I have read some of the views recently propagated, that croup and diptheritic croup are identical. I can hardly conceive two diseases more different, whether we consider them in their causation, symptoms, or sequelæ. In one feature, doubtless, there is similarity, because when, in diphtheria, the air-passages become affected, the presence of the membrane exuded necessarily gives rise to the same physical symptoms as to sound of voice, breathing, and asphyxiating paroxysms, as the false membrane in simple croup does. But in diphtheria, the exudations in the larynx or elsewhere are the local expression of a special blood-disease, which may, and often does, destroy life without affecting the air-passages at all, whereas, in simple croup, the false membrane is the result of a local inflammation. The causes or circumstances in which the two diseases originate are, according to my experience, very different. Ordinary croup almost invariably arises from exposure to cold, or occasionally from some source of local irritation, leading directly to inflammation of the mouth, as dentition. It is most frequent during cold moist weather, and specially during the prevalence of easterly or northeasterly winds. The late Professor Allison used to say that, according to his observation amongst the poorer classes, the affection most frequently occurred between Saturday night and Monday morning; and he attributed this to the custom of washing the floors of the rooms on the Saturday night, after the children were in bed. Diphtheria, on the other hand, prevails at all seasons and during all kinds of weather, sometimes as an epidemic, and then generally coincident with scarlet fever, but always more or less connected with, or influenced by, the effects of sewage emanations or imperfect drainage. Hence we meet with it more frequently amongst the better classes and in houses with modern accommodations, such as fixed wash-basins and water-closet accommodation in immediate connection with nurseries or bedrooms.

Diphtheria is undoubtedly infectious, both by direct contact of the sputa with a healthy mucous surface, as has been too often proved by members of our profession and by mothers, or by emanations from the affected person, as evidenced by the manner in which it spreads in a family. Simple croup, as I have been accustomed to see it, has no such contagious or infectious character. In dispensary practice, I have frequently seen a child affected with croup lying in a confined room amongst other children; but I never knew the disease to spread as diphtheria does. The peculiar nervous affection, the paralysis which follows diphtheria, has no counterpart in ordinary croup; nor, in cases of simple croup, were we accustomed to see the white leathery pellule on the tonsils or fauces, though it was a very common disease in Edinburgh and its vicinity. I know that in France the fauces were always examined, and that false membranes or pellicles were considered symptomatic of croup; but that only leads me to believe that the disease in France was always of a different type—diphtheritic, in fact.

THE HYPODERMIC TREATMENT OF INDOLENT ENLARGEMENTS OF THE CERVICAL GLANDS.

Dr. Morell Mackenzie, Physician to the Hospital for Diseases of the Throat, and lately Physician to the London Hospital, says, in the *Medical Times and Gazette*:—

Indolent glandular enlargements should be either cured radically or left altogether untreated. Half-measures only give rise to disappointment and cause disfigurement. An enlarged gland may be a slight blemish, but when it has been blistered, poulticed, painted with iodine, incised, or subjected to any of the various modes of treatment recommended in such cases, it often becomes a deformity.

As a rule, parents and young ladies are very desirous to get rid of these glandular swellings, not only on account of the disfigurement which they occasion, but because they are regarded as blots on the family escutcheon. It becomes important, under these circumstances, not only to disperse the tumors, but to leave behind as slight traces of their previous existence as possible. For the last eighteen months I have been engaged in trying various remedies, hypodermically, with a view of curing indolent glandular swellings. I have tried solutions of pepsine, with and without dilute hydrochloric acid, dilute hydrochloric acid alone, dilute acetic acid, tincture of iodine, alcohol, solution of nitrate of silver, solution of chlorid of zinc, and several other remedies.

In carrying out hypodermic treatment the cure may be effected either by resolution or by destruction. In the former case absorption takes place; in the latter the injection is followed sooner or later by suppuration. It is desirable, if possible, to cure by resolution. I have found acetic acid, as recomended by Dr. Broadbent for the treatment of certain kinds of cancer, the most useful remedy for this purpose. With this agent I have treated twenty-seven cases; of these fifteen were completely cured by resolution, four were greatly benefited, in five suppurations took place, and three patients discontinued treatment without any decided effect having been produced.

I have used the ordinary dilute acetic acid of the British Pharmacopœia, and have generally injected from five to twenty drops, according to the size of the gland to be treated, seven or eight drops being an average dose. The injection should not be made more than once a week. The fluid should be injected well into the middle of the gland. Suppuration has generally resulted from the solution having been injected either too frequently or too superficially. If suppuration take place, the fluid should be drawn off with a hypodermic syringe or aspirator. The average duration of treatment by resolution is three months.

For treatment by destruction and suppuration, a solution of nitrate of silver answers best. The solution should be of the strength of one drachm to the ounce, and not more than three to five drops should be used. Considerable interstitial destruction is generally produced after three or four injections, sometimes after a single injection. When pus forms, it should be drawn off as already directed. Treatment by destruction, if successful, is rather more rapid than that by resolution, but induration of the outer portion of the gland sometimes follows the treatment, and interferes with its success. I have treated five cases in this way; in three of them the cure was complete, in two incomplete. The treatment by pepsine and dilute hydrochloric acid was rapid, but was twice followed by superficial sloughs of the skin, and for that reason I abandoned it.

TREATMENT OF ECZEMA.

Dr. L. D. Buckley, of New York, in an interesting "Analysis of 1000 Cases of Skin Disease," (*American Practioner*, May, 1875), gives the following resumé of his treatment of eczema:—

"I do not order poultices to remove the crusts of infantile eczema, as many do, preferring much to cause their separation by means of fatty matter. Among the poor, and sometimes among the rich, I have the head soaked in cod-liver oil (sweet almond oil answers), or I have the ointment applied at once in a tolerably soft form; directing that the head shall not be washed at all, but as fast as the crusts fall, perhaps with slight assistance from the finger-nail, the ointment is to be re-applied; the idea being to thoroughly protect the irritated mucous layer of the skin, and to shield it from air and water. Occasionally the crusts will accumulate and adhere, and it becomes necessary to use a poultice or wash the head well with warm water and borax; but this, in my experience, is very rare.

"During the past year I have employed very largely tannin in ointment (one drachm to one ounce) in eczema, and like it very well. A very common treatment is to bathe first with the *liquor picis alkalinus*, diluted ten or twelve times, twice a day, and apply the tannin ointment immediately afterward. I have also used with very satisfactory results the subnitrate of bismuth in ointment (half a drachm to one ounce), and prefer it in very many instances to that of zinc, as commonly employed. I would again mention the value of the rose-ointment as an excipient, and its efficiency when the simple ointment has failed. Several cases of eczema rubrum, covering quite a large part of the body of children one or two years old, were seen. These cases are often most obstinate. Our best results were attained by starch and alkaline baths, and powdering the surface with subnitrate of bismuth and starch.

"Internal treatment is always required, and I believe that the largest percentage of good results was obtained by means of cod-liver oil in appropriate doses. Syrup of the iodide of iron is also invaluable in treating eczema in children.

"In adults most of the cases of eczema were of the chronic form, very many of them being in the legs, and dependent upon varicose veins. The treatment of these is very frequently unsatisfactory, because of the continued existence of the cause, especially among the poor, who cannot give the necessary time to rest. Elastic stockings should be insisted on in eczema of the legs when the disease has recurred often or lasted long; for, although the veins may not appear to be varicose, there is often a want of tone of the capillaries, which is supplied by the stockings. We have had good results from the use of tarry preparations, and have known a moist eczema to be completely healed after a very few applications of the *liquor picis alkalinus* in full strength. A common treatment in chronic eczema is equal parts of tar and oxide-of-zinc ointments, with the addition of a little mercurial ointment, as the citrine, when the surface ceases to be moist.

"In place of the *sapo viridis*, or green potash soap of the Germans, I have been employing the ordinary American soft-soap made with potash, and with almost, if not quite, as good results, although

it contains relatively less potassa. In one case of eczema of the hands, in a mason aged thirty-three years, which had existed for ten or more years, it was used with excellent effect. He had been treated by me with other measures for six months with varying success, and when this method was commenced the skin on the back of both hands was very greatly thickened, even to three or four times the normal; the surface was hard and scaly in some places, moist and cracking in others. He was first given a strong pottsh solution (one drachm to one ounce), with which the surface was well rubbed once or twice, and covered with the diachylon ointment of the Germans. This caused great swelling, which subsided, leaving the parts somewhat less thickened. He was then directed to rub in the common soft soap, well, night and morning, and cover the hands as before; and after a short time the friction with which it was applied was increased, until he came to using an ordinary scrubbing-brush, such as is used for the floor. Dipping it in soft-soap, the back of each hand was scrubbed—the palm resting on a table, till the opposite arm and shoulder were tired. The result was that at each visit a marked diminution in the thickness was noticed, and in three weeks the skin was reduced to almost the normal thickness, and his hands were better than they had been for ten years. This is an exaggerated case, but is of value, showing how far the stimulating treatment may be pushed with advantage; whereas, on the contrary, ninety out of one hundred of the ordinary run of eczema cases would be greatly aggravated by such means.

"In one case of eczema of the scrotum I obtained very excellent results from the repeated application, by means of a camel's hair brush, of the compound tincture of benzoin. The man ceased attending before the thickening had entirely disappeared, and the ultimate result cannot be stated with certainty; but it is probable that the disease was cured, as the remedy was the first one tried by me, and the relief and satisfaction expressed by the patient was very great.

"Quite a large share of the cases of ordinary eczema of various parts was treated by the oxide-of-zinc ointment, very generally in conjunction with some internal medication, depending upon the state of the patient. Many of this class are the constant subjects of dyspepsia, and the rhubarb-and-soda mixture was very commonly used. I frequently add Fowler's solution to it, giving of the latter three or four drops with a teaspoonful of the former. Many of these patients require tonics, and the ammonio citrate of iron and compound tincture of cinchona were generally used. Acute lichenous eczema I frequently treated with Startin's mixture of sulphate of magnesia, sulphate of iron, aromatic sulphuric acid, and gentian. Acetate of potassa, alone or combined, was used somewhat, and in my hands has done much for eczema.

HAIR TONIC.

Dr. J. N. Nowlin, of Georgia, sends us the following prescription which he has used for years, and "has yet to meet the first instance of failure to arrest falling of the hair." He requests those who use it to report through this journal.

R.	Borax, powdered,	two drachms
	Cologne water,	eight ounces
	Bay rum,	six ounces
	Tinct. cantharides,	
	Spir. ammo. arromat.,	aa one ounce. M.

Sig. Apply to the scalp every morning, by thoroughly rubbing in.—*Philadelphia Medical Reporter.*

THE DISCOVERER OF THE ANÆSTHETIC PROPERTIES OF CHLOROFORM.*

An attempt to relieve the tedium of convalescence from a severe attack of influenza, at the close of last year, led Sir Robert Christison to take up the thread of some former inquiries on the subject of anæsthesia, the result being an interesting contribution to the history of the use of chloroform as an anæsthetic. Having heard vague reports that chloroform had been used in the practice of Sir William Lawrence and Mr. Holmes Coote in the summer of 1847, some months before Sir James Simpson's experiments, Sir Robert Christison, in 1870, applied to Mr. Holmes Coote for information. In reply, the latter gentleman confirmed the truth of the report, and stated that the substance was introduced to their notice under the name of "chloric ether," by a Mr. Furnell, who represented it to be a milder anæsthetic than sulphuric ether. It was tried in several cases successfully, and, whilst Sir William and he were endeavouring to reduce the amount of spirit and water so as to condense the preparation, Sir James Simpson made known his important discovery. Sir James Paget also testifies to the use of "chloric ether" at St. Bartholomew's.

Then for a time the inquiry dropped, partly through Mr. Furnell, who is now Surgeon-Major in the Madras Army, and was formerly a student in the School of Pharmacy, Bloomsbury Square, having been erroneously described by Mr. Coote as in the Bengal Army. Sir R. Christison has, however, succeeded in identifying and communicating with Mr. Furnell, who gives the following curious account of his first acquaintance with chloroform. In 1847 Mr. Furnell was a student in St. Bartholomew's and was also engaged in "putting in a vein of pharmacy" at John Bell & Co.'s, to enable him to pass at the College of Surgeons. Whilst at the establishment in Oxford street he appears to have developed so extraordinary a propensity for experimenting upon himself with sulphuric ether, which just then was creating a great sensation in London, that Mr. Jacob Bell became alarmed, and gave orders that no more ether should be supplied to him. This led Mr. Furnell to search the store-room to see whether he could

* Pharm. Jour. and Trans.

discover any ether to which he could help himself. On a back shelf he found a dusty bottle labelled "chloric ether," the contents of which, proving grateful to his sense of smell, were taken up stairs, and a portion inhaled from a new instrument which he wanted to try. Mr. Furnell found "chloric ether" was sweet and pleasant, and that it soon produced a certain degree of insensibility, but he was struck by the absence of the suffocating irritation and choking sensation produced by sulphuric ether. He therefore took some down to Bartholomew's Hospital and introduced it to the notice of Mr. Holmes Coote with the result mentioned above.

So far had Mr. Furnell gone on the road to discovery when he was overtaken and outstripped by Sir James Simpson.

ON THE TREATMENT OF A COMMON COLD.

Dr. J. M. Fothergill says, in the *Practitioner*:

Rarely is any impression made upon the pyrexia until the action of the skin is excited and the cooling effects of exhalation attained. The administration of nauseant diaphoretics to attain these ends has been the rule amidst practitioners and housewives. The time-honored antimonial wine has scarcely yet yielded to its rival, ipecacuanha, nor, perhaps, is it desirable that it should. Their combination is good and to be recommended. In adults, iodide of potassium in guaiac mixture forms an excellent combination, especially when the cold is combined with rheumatic pains or tonsillitis. These internal remedies may be aided in their action by external measures, such as warm baths. With children it is easy to wrap them up in a blanket wrung out of hot water, to enclose them so wrapped in a dry blanket, and to put them into bed. This may be repeated as required, and sufficiently aids the remedies given by the mouth. Measures for giving adults a warm bath in bed are now to be procured at little cost. After perspiration is once induced, there is usually a gradual fall of temperature; but the normal may not be reached for some days. There is a decided tendency to excessive heat-loss after the action of the skin has been established, even though the temperature indoors be above the normal. Experience has taught humanity to wrap up well when passing through a cold, especially when it is breaking. Ere the action of the skin is re-established, the impression of external cold is grateful, but afterward chills are readily experienced. The increase of blood in the heat-losing area permits of rapid heat-loss. When a cold is caught during the restorative period it is usually a fixed one, and not rarely serious illness is the consequence.

When the action of the skin is re-established, it not uncommonly happens that perspiration is profuse, even while the patients wrap up well to shield themselves from heat-loss. This is a troublesome stage in the history of a cold. Here mineral acids with vegetable tonics are indicated, and perhaps, best of all, dilute, phosphoric acid in cascarilla or cinchona. In the treatment of influenza, vegetable acids along with a bitter tonic should be given.

In the treatment of the bronchial affections which commonly accompany an ordinary cold it is not a matter of indifference what expectorant remedy is selected. As long as the skin is dry, and the bronchial lining membrane tumid, and secretion arrested, ipecacuanha with acetate of ammonia is indicated; or a little antimony may be added with advantage. When the skin is once thrown into action and the bronchial secretion also established then acid with syrup of squills are suitable measures. But it is not a successful plan to administer squill with acids until the skin is moist. When there is tendency to the free action of the skin, this latter combination in full doses is a useful plan of treatment. Neither is the union of carbonate of ammonia and senega in severe cases, indicated until the secretion alike of the skin and the bronchial lining membrane is thoroughly established.

SORE NIPPLES.

The following letter was addressed to Dr. Julius Fehr, who not long since wrote an article for THE RECORD, on sore nipples:—

DEAR SIR:—I have seen an extract from your article, in the *British Medical Journal*, of September 18, 1875, from the N. Y. MEDICAL RECORD, on "Sore Nipples." I have had a large obstetric practice as an English physician, and have *never* had a bad case of sore nipples. For many years, when the nipples became slightly sore, I at once applied *zinc shields;* but of late years, instead of allowing the zinc to combine with the lactic acid of the milk, I have applied a preparation of sulphate of zinc and lactic acid (in fact lactate of zinc) and glycerine with starch, between the times of suckling. I think if you try this you will find it unfailing, and not only a "prophylactic," but a *specific* in the true sense of the term.

Yours very truly,

ALFRED FLEISCHMANN,

Late Asst. Phys. Accoucheur, King's Coll,. London.

DR. EDWARD WARREN.

It will be remembered by our readers that Dr. Edward Warren, of Baltimore, left this country some three years since to serve in the army of the Khedive of Egypt. Just as he had reached the highest position in that service, the office of surgeon-general of the Egyptian army, he was attacked with ophthalmia of a malignant form. After combating it by every possible means in Cairo, he was finally compelled to go to Paris for treatment, after six months of which he is now left with one eye permanently enfeebled, while the oculists declare that if he returns to Egypt the right eye will be compromised and lost. He has accordingly obtained an authorization to practice in France, and is, we understand, already in a fair way to become a popular practitioner in Paris.—*Boston Journal*, Oct. 14, '75.

ON THE MEANS MOST GENERALLY USEFUL FOR RELIEVING THE COUGH, SWEATING, AND DYSPEPSIA OF CHRONIC PHTHISIS.

By James Little, M.D., Professor of Practice of Medicine in the School of the College of Surgeons.

In no disease is a routine treatment more unsuitable than in phthisis. Each case has its own peculiarities, which leave the physician who is fertile in resources endless opportunities for the exercise of his skill; yet the following measures, not in very general use, have appeared to me applicable to a larger number of cases than those more commonly employed.

For the relief of *sweating*, the mineral acids, and such astringent drugs as oxide of zinc and tannin, though recommended, are according to my observations, very far inferior to two medicines but little used. Five grains of *Dover's Powder* was suggested to me some years ago by Dr. Hayden, and I have since satisfied myself that this dose, administered at bed-time, checks phthisical sweating more frequently than any other remedy. Next to it is *atropia*, or its sulphate. It is best given in a pill, $\frac{1}{100}$ grain to $\frac{1}{80}$ grain. As this requires very careful compounding, it is sometimes safer to use the liquor atropiæ—one minim to one minim and a-half; but, whether from the instability of the solution or some other cause, the atropia does not display its power over sweating so markedly when given in solution as when administered in pill. The chill caused by the damp night-dress is not only a great discomfort to the phthisical, but is, I believe, a not uncommon cause of the intercurrent pulmonary congestion to which they are so subject: and all consumptives who sweat should, therefore, wear a large, loose night-dress made of fine *flannel*.

Cough in phthisis may call for different applications to the chest, for stimulating expectorants, and for various other remedies, according to the special state of lung then present; but for the wearying cough peculiar to phthisis, and especially when it prevents sleep at night, I have for some years used a combination which, I think, is more generally useful and longer useful, than any other with which I am acquainted:—

Acetate of morphia, 2 grains.
Liquor of atropia, 6 minims.
Dilute hydrocyanic acid, 36 minims.
Syrup of Virginian Prune to an ounce and half.

A measured drachm is to be taken, unmixed with water on going to bed, and once again during the night, if necessary. This combination does not usually cause morphia sickness in the morning: if it does, the sickness is best relieved by sucking a few slices of lemon. When the expectoration is very tenacious, this mixture does not suit so well as one containing small doses of iodide of potassium, with bicarbonate of soda, hydrocyanic acid, and compound tincture of chloroform. To this, small doses of tincture of opium may be added. This is a mixture to be taken at shorter intervals than the one to which I have just referred, and continued until the expectoration becomes easier.

Four years ago I was attending a lady in whom the right lung was almost completely excavated, while in the left there was only a small diseased spot. Her great distress arose from the pain produced during violent fits of coughing by the stretching of the numerous pleural adhesions by which the right lung was tied to the walls of the chest; the cough stretched, and probably sometimes tore these, and the irritation which this produced in its turn provoked fresh cough, so that the fits were incessant and most violent. It occurred to me that if I could prevent the stretching of the old adhesions, I would lessen the patient's sufferings, and with this object I confined the right side of the chest by strips of soap plaster spread on dimity four or five inches broad, and long enough to reach round the chest from spine to sternum. One of these I also drew across the shoulder, from the interscapular region behind to the mammary in front. Thus supported, the chest walls were no longer injured by the concussion of the cough, and the greatest relief followed. More recently strapping the chest has been recommended in the early stage of phthisis for the purpose of limiting the play of the diseased lung. Of its value, when applied with this object, I have not had sufficient experience to enable me to form an opinion, but I have in very many cases given the greatest relief by adopting it under such circumstances as those I have described. Chloral, as a cough reliever, though very generally prescribed at present, has not appeared to me a very satisfactory medicine—at least if given alone. Doses sufficient to check the phthisical night-cough seem to me to produce disturbed sleep and an increased feeling of oppression in the chest. The addition, however, of ten grains to each dose of an opiate cough-mixture will render the effect more immediate, and permit us to use a smaller quantity of the opiate. For consumptive persons who are going about, chloral lozenges are sometimes a great comfort. I have lately had two young men under my care who went to their offices daily until a few weeks before their death, and in whom the occasional use of a chloral lozenge so quieted cough that they were able to discharge their duties without annoying those around them.

In some consumptive persons digestive disturbance is indicated by the single symptom of utter loss of appetite. In such, I believe, there is only one combination—that of strychnia, with phosphoric or hydrochloric acid—which distinctly does good. It may be given in freshly-made infusion of columba, or as Dr. C. J. B. Williams recommends, in infusion of orange. When with loss of appetite there is feeling of load after food, a dessert-spoonful of pepsine wine, with ten minims of dilute hydrochloric acid, in a little water after meals, usually relieves. When, however, instead of these symptoms, we have after meals a feeling which approaches that of pain, with flatulence, cough ending in vomiting, some thirst, and a coated tongue, we must for the time give up tonics and cod-liver oil (if it has been in use); enforce a regulated and rather spare diet; apply counter-irritation to the epigastrium; if necessary, use some of the aperients which act on the upper part of the in-

testinal tract, and some of the medicines which are good against gastric catarrh—of which the most generally useful in my experience is a mixture (which, like many other invaluable combinations, I learned from Dr. Hudson), containing minute doses of nitre, with bismuth, hydrocyanic acid, and nitric acid.—*Dublin Journal of Medical Science.*

TINCTURE OF IODINE FOR CLOASMA UTERINA.

Dr. Dubois recommends this method of treating the unsightly patches that so frequently disfigure the faces of pregnant women. Every evening a coating of the tincture is to be applied to the spots. The epidermis exfoliates and the spots disappear. If this does not follow the first application and some pain results, he then suspends the use of the iodine and replaces it with cold cream. Then when the epidermis is newly formed, he recommences the use of the iodine, and this time the patch will disappear entirely. —*Gaz. Hebdom.*

[We have used the above in several cases and can bear testimony to its value.—Ed. Record.]

A NOVEL METHOD OF TREATING THE VOMITING OF PREGNANCY.

Dr. Edward Copeman, President of the British Medical Association, in an article in the *British Medical Journal* of May 15, 1875, relates the histories of three cases in which vomiting had resisted all the usual remedies, and in which a new treatment, discovered by accident, as it were, succeeded in checking the vomiting almost immediately. In the first case, that of a lady six months advanced in pregnancy, the vomiting had become so excessive as to occasion great fears for her safety. Dr. Copeman saw her in consultation with two other practitioners, and advised bringing on premature labor, which the others at first were rather unwilling to agree to on account of her depressed condition, though they finally acquiesced in the plan advised. Accordingly he at once dilated the os uteri as much as he could with the finger, so that he could feel the membranes and head of the child. An attempt was made to rupture the membranes, but failed, owing to their flaccid condition and the slight resistance offered by the head to an ordinary female telescopic catheter, the only instrument at hand. After this failure it was decided to wait a little while before resorting to other means. In an hour she was seen again, and he was surprised to learn that a longer period than before had elapsed without sickness, so it was determined to wait another hour in the hope of giving her some nourishment. During that time no vomiting occurred, and it was decided to resort to no further active measures, but to wait for further developments. No recurrence of the vomiting took place during the night, and the case went on favorably to full term, when she was delivered of a healthy child, and made a good recovery.

The second case was one in which pregnancy was only of two months' standing, and in which the surgeon in attendance had exhausted the best acknowledged remedies, and had arrived at the conclusion that artificial delivery would be necessary to save her life. Dr. C., keeping the first case in his mind, and wondering whether the dilation of the os in this first case, by removing any undue tension productive of sympathetic irritation of the stomach, had been the cause of relieving the vomiting, examined the uterus, found some degree of anteversion and the os patent enough to admit the tip of the finger. He immediately dilated the os as much as he could, passing his finger all round, and removing all puckering of the os and rendering its edge smooth. She vomited slightly only once after this procedure, and he left her with the understanding that in case the sickness returned he should be summoned again to bring on abortion. But the summons never came, and in a fortnight he heard that she began to improve decidedly an hour or two after he left, and that the sickness had entirely ceased. Several times since he has heard that she was doing remarkably well, and he believed that she expected to be confined during the month (May).

In the third case, the patient was the mother of nine children. Generally during early pregnancy, and sometimes for several months together, she had been troubled with vomiting, but in this pregnancy, for three weeks before his visit, the sickness had been almost constant. She could retain nothing on her stomach, and was in a very weak and enfeebled condition. Considerable albumen, some pus, and a few casts were found in the urine. There was no dropsy. On examining the os, he found it patent, puckered, and dilatable, so he proceeded to dilate it as much as possible with the finger, in the hope that the sickness might be relieved as in the other cases. A few days after this he was informed that no return of sickness had happened since his visit, and that she was able to take food without inconvenience, though she was still very weak and ill. Since then he has learned that she had been safely delivered and was doing well.

In conclusion, he says that the subject seems to him to be of so much importance that he reports these cases without waiting for others, or attempting the *modus operandi* of the treatment, but hopes to communicate further when he has more thoroughly thought over the subject, and promises to report any future success or failure that may come under his observation.

Dr. Graily Hewitt, in the same journal for May 29, 1875, gives what he considers to be the true solution of the *modus operandi* of treatment in Dr. Copeman's cases. He says that in 1871 he read a paper (see Transactions of the Obstetrical Society, vol. xiii.) in which he enunciated the theory, supported by facts and observations, that vomiting in pregnancy was due to flexion of the uterus, the compression of the tissues at the seat of flexion being the irritation giving rise to the vomiting.

He believes that in all of Dr. Copeman's cases there was acute flexion, and that the dilatation of the cervix relieved the vomiting by overcoming the cramped and confined condition of the uterus; and he believes that this same condition is the cause of vomiting even up to the eighth month, because in

such cases the tissues of the uterus at the point of flexion are sometimes left in the early months in a diseased state, being stiffened and unduly resistant—and thus the irritation is kept up. He says that he has been in the habit of treating obstinate vomiting in pregnancy by elevating the body of the uterus, and has found that the same good results have followed as in Dr. Copeman's method.—*British Medical Journal*, May 15 and 20, 1875.

TANNIN IN THE CORYZA OF ADULTS AND CHILDREN.

"You are constantly telling us," it is sometimes said, "of the great progress made in recent times by medicine, and you have not yet found out, from the time of Hippocrates until now, the means of curing coryza." Those who reproach us in this way forget to add that, not wishing, for the sake of curing a simple "cold in the head," to submit to any of the hygienic measures rationally indicated, they demand in reality a prompt means of cure, easy to follow, even while travelling. Even those who cry up infallible specifics most loudly have never proposed anything more than some palliative, and these from ammonia to iodine, are always in a liquid form just the shape which is most difficult and inconvenient to carry about. In general, all these preparations are far from compensating by their utility for the inconvenience of their employment.

For ourselves who do not intend to change our habits or suspend our business any longer for the sake of a coryza, every time we have been attacked by our enemy we have put the question upon a practical footing, and have endeavored no longer to cause the disease to disappear instantaneously by some sovereign *specific*, but to diminish its principal inconveniences and to render its attacks in some degree tolerable.

Observe how we have attained our object. The first symptoms of coryza are congestion of the mucous membrane of the nasal fossæ, with dull headache, heat in the upper part of the face, sleepiness, dryness of the mouth and throat, more noticeable when swelling of the mucous membrane closes the nasal passages completely, obliging the patient to breathe with the mouth constantly open. Such are the principal tortures of a "cold in the head," and for which relief is most urgently demanded. It is evident that if an energetic contraction of the mucous membrane can be brought about, so that its volume shall be diminished, this desideratum can be attained. In short, when the air finds a free passage through the nasal fossæ, the frontal headache and the lachrymation will disappear, and at the same time the dryness of the mouth, which may then be kept closed.

In addition, the mucous membrane being compressed like a sponge, makes easy the expulsion of those fluid muco-sities which cannot be detached under ordinary circumstances without great effort.

We may obtain these results constantly by the use of tannin made into a powder after the following formula:

℞ Tannin.. gr. ¾;
Pulv. iris,
Pulv. althææ, ää gr. xv;
Tinct. vanillæ, gtt. iv.—M.

To be taken in small pinches three or four times a day, or oftener if necessary.

Coryza which in the adult merely presents inconveniences easy to support, becomes, on the other hand a serious matter when it attacks an infant. Here, as all physicians know, the occlusion of the nasal fossæ may directly threaten life, because rendering efforts at suction of the breast impossible. It is necessary to act immediately; and it must be confessed that the means heretofore recommended have proved totally inefficacious. Observe our method of combatting the danger.

After having prepared the following ointment,

℞ Tannin.. gr. ¾;
Axungiæ, ʒi ʘi:
Tinct. vanillæ, gtt. v.—M.

we roll between the thumb and index-finger a very small square of paper so as to form a not very rigid cylinder, which will yield easily to any lateral movements which may be made by the infant while it is being introduced into the nostrils. Then, after having smeared the exterior with the ointment, it is introduced deeply into each nasal fossa.

In this manner we often bring about one or two very salutary attacks of sneezing, and always the effect just noticed as occurring in the adult, that is to say, free circulation of air in the nasal fossæ following the subsidence of swelling in the mucous membrane. The parents are always struck with the rapidity with which the infant returns to the breast, thanks to the success of this little manœuvre. It is because we are convinced that we have rescued more than one infant from imminent danger that we lay stress upon the process which has demonstrated to us that, in the medical treatment of infancy, it is the trifling appliances which often produce the best effects. —Dr. D., in *Tribune Medicale*, Jan. 17, 1875.

ON NERVOUS HEADACHE.

In this painful complaint, says the London *Medical Record*, M. de Chégoin has verified the dilatation of the arterial vessels of the encephalon and the face during attacks of nervous headache, and considers it as an arterial neurosis, its starting-point is in the great sympathetic, its precise seat in the nervous filaments which accompany the arteries. Its material phenomena are seen in the dilatation of these vessels, and in the compression it produces on the brain and the other organs, for in a true fit of intense nervous headache, patients suffer thus universally, the hands are swollen, the muscles painful, and movements of the joints distressing.

M. Hervez de Chégoin concludes, from these facts that the treatment should be directed against the distress of the nervous system of the great sympathetic, and against the resulting arterial dilatation, which in his view constitutes the essential character-

istic of the disorder, in which its necessary to distinguish three things, the intermittent character, the pain, and the arterial dilatation. A special therapeutic treatment, founded on the rigorous appreciation of and reasoned out from these elements of the disease, leads to the good results which have been obtained by the administration of pills composed as follows:—

Sulphate of quinine, tannin, each 5 centigrammes (0·75 grain), aconitine, 1 milligramme (0·015 grain) for one pill. One of these pills is given during the day; but some patients, having of their own accord exceeded this dose, take as many as three or four of them daily, with marked benefit. Tannin, in particular, seems to have a special action, which explains the relief obtained by the use of certain substances which, like paullinia, contain it. This treatment, however, is incomplete, since it does not touch the intermittence nor the pain; these are met by substances contained in the pills for which the formula is given above.

ON THE TREATMENT OF FRACTURES

BY DR. SCHWAB, OF WURZBURG.

The physician, when called upon to treat a fracture, either of the upper or lower extremity, is occasionally embarrassed in the selection of his mode of bandaging or dressing; not only on account of the multiplicity of these modes, but also because the necessary articles are frequently not at hand or not easily obtainable.

I take the liberty, therefore, of calling the attention of my professional brethren to an article at once simple, yet effective, which is always to be found in every household. The same method may have been made use of by others, but I do not recollect ever seeing it mentioned in any surgical work. The "plaster of Paris bandage" has, it is true, stood well the test of experience in the treatment of fractures, but the necessary articles are, unfortunately, not always at hand, and frequently difficult to obtain.

I have found albumen, as in the white of egg, to answer equally as well as the plaster of Paris; and as eggs are to be found in nearly every house, it is always to command when needed.

In addition to the whites of six to eight eggs, there will be needed an old linen sheet, from which a bandage of scultetus can be cut, a piece of pasteboard, which is always at hand in the cover of an old book, and a roller bandage from three to four yards in length.

The bandage of scultetus and pasteboard are first saturated with the albumen and the bandage carefully applied, allowing the edges to slightly overlap. This bandage should reach to the joints above and below the fracture. The pasteboard is then smoothly adjusted to the part and secured with the roller. The limb is kept in proper position by means of small branbags, or cushions of straw.

I have used this method exclusively for twelve years, in the treatment of all fractures of the extremities, with complete success. *No shortening*, or other deformity, ever followed.

In fractures complicated by superficial or deep wounds, an opening is cut through the pasteboard and bandage, to permit free access to the wound.

In cases where swelling had taken place in the injured limb I have applied this bandage, and frequently found the swelling to completely disappear on the second or third day. The bandage and splint are then taken off and re-applied.

Whether it be a delusion or not, I believe to have discovered that, with this bandage, the fracture unites, and mobility of the joint returns, much earlier than with any other dressing. This result I ascribe principally to the curative action of the albumen.

In comminuted fractures, also, I have not hesitated to apply this bandage, even though the splintered portions of bone could not be brought in coaptation.

As the dressing dries in a few hours, the transfer of the patient on the day of the injury is rendered practicable; in time of war this is of great importance and advantage, as it is frequently necessary to evacuate a field hospital on very short notice.

The following points, as demonstrating the superiority of this over any other method of treatment, are presented for consideration.

1. The ease and rapidity with which the articles needed can be obtained.

2 The ease of application, and the rapid drying of the bandage.

3. The early abatement of the pain.

4. The more rapid recovery, and, consequently, the earlier use of the fractured limb.—*Baltimore Physician and Surgeon.*

CASE OF HYPERIDROSIS; CURE

By John M Bigelow, A.M., M.D., Albany, N.Y.

On January 20th, 1875, Mr. C. H. D., a clerk, aged twenty-six years, stout and healthy looking consulted me with reference to the above mentioned infirmity. On questioning him I discovered no hereditary or acquired taint of scrofula, phthisis, or syphilis. He had been troubled with this complaint for about six years; and during this time had suffered, in addition to physical pain, so much mortification that he had shunned all society and social enjoyment. "So terrible was the *stench* from my sweating feet," he strongly stated, "that I would not even attend places of amusement or social gatherings." On inspection, his feet were found bathed in an extremely abundant, acrid, fetid secretion, the soles were fissured, and the spaces between the toes were chapped; the skin presented a parboiled appearance, and was very tender.

He had tried, with only temporary relief, brine, sugar-of-lead, carbolic acid, sulphuric acid, and other lotions. Owing to the condition of his feet, he wore cotton hose, and had powdered them with tannin.

I prescribed for him the following: bromo-chloralum, ℥ j, water, ℥ ij. Apply three times daily with a soft sponge, having previously dried the feet thoroughly with hot flannel.

For a few days his hopes of cure were raised, only to be followed by a relapse more severe than

ever. I then prescribed the application of equal parts of borax and lycopodium, to be worn in the socks. On February 20th he returned to my office much discouraged, and said that all treatment thus far relieved for a few days, and then became inert. I then directed him to take to his bed, and began Hardy's treatment, as introduced by Hebra. I gave no internal remedies. I applied dyachylon-plaster as follows: cutting it into strips, I twisted them around each toe separately, and also applied them to the interdigital spaces, completely enveloping the whole foot, so that every portion of the sole, dorsum, and toes of the feet was in close and immediate contact with the plaster. These strips were removed each morning, the feet carefully and thoroughly wiped with dry, heated flannel, and new plaster strips applied. This treatment was persevered in for thirteen days, and at the expiration of that time the plasters were removed, and the feet presented a healthy normal appearance, free from the troublesome hyperidrosis. Since that time (March 2nd) I have seen the patient twice each week, but so far the cure is complete, and he assures me that he now enjoys comfort and ease in walking, and can avail himself of the pleasures of society without any disagreeable odor to announce his presence.—*New York Medical Journal*.

DEATH OF DR. J. HUGHES BENNETT.

We have the great pain to announce the death of Professor Hughes Bennett of the University of Edinburgh. The wearing illness under which Dr. Bennett has suffered for some time has been known to most of his professional brethren; the touching fortitude with which he endured those sufferings, the brave determination with which he nerved himself to the last to the fulfilment of professional studies; and the force and vigor which animated his attenuated features when detailing the last great work which he directed, the Report of the Edinburgh Committee of the British Medical Association on the Antagonism of Medicines, fitly crowned the life of a man remarkable beyond any of his fellows for unflinching devotion to science, courageous defence of his personal and scientific convictions, unsparing denunciation of what he believed to be error, and resolute furtherance of the objects which he believed to be good for the university, the profession, and the science which he loved so much. He died from the after-effects of lithotomy on a system weakened by constitutional disease. He bore himself nobly during life; and he faced death with courage, resignation, and faith. We shall, next week, endeavor to do justice to the life, works, and character, of this distinguished physician and biologist.

The remarkable success with which Dr. Hughes Bennett has, under circumstances which called for the display of courage, judgment and energy, twice carved out for himself a successful and useful career, recalls a *mot* of the late Dr. Henry Wright, a friend and pupil. Referring to his singular tact, energy, and judgment, Henry Wright used to say that "If Bennett were stranded on an iceberg in the Arctic Ocean, he would infallibly create for himself a career among the whales and end his life as consulting-physician to the North Pole, and a director of a sanitarum at the Equator."—*Brit. Med. Journ.*, Oct. 2, '72.

DIPHTHERITIC SORE THROAT.

The following easy and successful method of treatment, recommended and practiced by Dr. Lolli, has given similar results for many years, and the conclusions drawn by the author are as follows:

1. Never cauterize the throat or abstract blood; abstain from purgatives and emetics, unless in very exceptional cases.

1. Nourish the patient according to his appetite, but let the food be light and easily assimilated.

3. Keep up the functions of the skin from the very commencement of the disease till the local, or still better, the general symptoms, allow you to judge that the morbid process is extinct. (Great stress is laid on this point.)

4. For local application, as well as for internal use, the author strongly recommends the following "anti-diphtheritic mixture":

Boiling Water	℥ vi–xx
Liquid sesquichloride of iron	mxx.–℥ i.
Carbolic acid	gr. iij.–xx.
Red honey	℥ vi

This can be used internally and as a gargle every two hours, one or two spoonfuls being a dose.

The result of this treatment in sixty cases has been—a mortality less than 2 per cent.: medium duration of the attack, eight to ten days; extension of disease to air passages rare and slight; sequelæ, none, or very rare.—*Repetorio Fulicinse.—Glasgow Medical Journal.*

PREMATURE BALDNESS—TREATMENT.

Dr. Pincus (*Berlin Klin. Wochenschrift, London Medical Record*) suggests the following treatment in the first stage of premature baldness. This stage is recognized by a daily loss of under fifty hairs, by diminished sensibility to pressure, and, after a time, by commencing hardness and immobility of the scalp. If now weak alkaline washes be applied to the hair for a year or more, the progress of baldness is arrested, and in some cases the mischief already done is restored. He recommends a solution of caustic potash, one part to five hundred of water, or fifteen grains of the bicarbonate of potash to an ounce of water. Two or three drachms of this solution is to be rubbed into the scalp for from three to five minutes daily. After a time this may be done every other day and then only once a week.

FRECKLE LOTION.

Take—Citric acid.....3 drachms.
Rose water.....12 fl. ounces.

To apply both of these lotions it is only necessary to moisten a sponge or the fingers with them, and to wet the skin by gentle rubbing."

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THE PROPOSED NEW MEDICAL BILL.

It is a matter of the very deepest regret that the proper officer of the College of Physicians and Surgeons of Lower Canada does not deem it right and proper to furnish the medical journals with reports of their proceedings. If such had been done, the profession would, we believe, have been made aware that more than a year ago, in fact at the last tri-annual meeting of the College, which was held at Sherbrooke, in July, 1874, a committee was named with a view of suggesting amendments to the present Medical Act, this committee consisting of Dr. Jackson of Quebec, Drs. G. W. Campbell, Craik and Rottot of Montreal. We believe that Dr. G. W. Campbell declined to act, as he was retiring from the active duties of the profession, and Dr. Craik did not act. The whole duty seems to have devolved upon the remaining two members of the committee, and at the meeting of the College in May last, held in Montreal, instead of suggesting amendments, their report consisted in laying before the Governors an entirely new bill. So far as we can learn the introduction of this report was made in a somewhat peculiar manner, it being read in French, from a copy of our contemporary, the *L'Union Medicale*. Beyond its reception, and its being ordered to be printed in the English language, no further action was taken. The English translation does not seem to have reached the light till the meeting of the Governors of the College at Quebec, in October last, when a strong attempt was made to have the Bill adopted, so as to be ready for presentation to the present Session of the Quebec Parliament. The meeting was a small one, many whose duty it was to have been there were absent, but an energetic protest was made by one or two against any attempt at legislation till the proposed measure had time to be discussed and understood by the profession throughout the Province of Quebec. At the afternoon meeting of the Governors, held after some had left Quebec, it was decided to call a special meeting of the members of the College at Quebec on the 24th of November, to discuss the report of the Committee, and in accordance with this resolution, Dr. Russell of Quebec, President of the College, has issued his circular for the meeting. At the time we write it has not taken place, and we believe no such meeting can be held, there being no provision in the by-laws, so far as we can see, for calling special meetings of the members. This view is, we understand, also held by the President of the College, who simply calls the meeting, having by error in the first instance consented to do so. No meeting will, we believe, as a consequence take place, and no further action can be taken in the matter till the next meeting of the Governors in May, 1876. In the meantime we append the Bill, reserving such comments upon it as we may deem necessary till our next issue. It would be well, however, that our readers in the Province of Quebec should closely study its various provisions, so as to be prepared to act as they may deem proper when the time arrives.

BILL.

An Act to incorporate the Members of the Medical Profession in the Province of Quebec, and to regulate the Study and Practice of Medicine and Surgery therein.

1. Whereas it is necessary to amend the laws now in force to regulate the practice of Medicine, of Surgery and of the Obstetric Art. And whereas it is greatly desirable that the Medical Profession of the Province of Quebec above mentioned be placed upon a more respectable and efficacious footing at the same time, and that better means to convict and punish persons who practise medicine without license be established. Be it therefore enacted by Her Most Excellent Majesty the Queen, by and with the advice and consent of the Legislative Council and of the Legislative Assembly of the Province of Quebec, and it is by these presents enacted by the said authority, that from and after the passing of the present Act, the Act or Ordinance of the Legislative Council of the heretofore Province of Quebec, passed in the Twenty-eighth year of the reign of His late Majesty King George the Third, and entitled: *An Act or Ordinance which forbids any person whatsoever to practise Medicine and Surgery in the Province of Quebec or the profession of Accoucheur in the cities of Quebec and Montreal, without a permission therefor*, and all other Acts or portions of Acts which relate in any manner to the practice of Medicine, Surgery and the Obstetric Art, or to the mode of obtaining licenses to practise Medicine, Surgery and the Obstetric Art, shall be and are hereby repealed, excepting as to what relates to all contraventions of the said Acts, or of either of them, before the passing of the present Act, or to every fine or penalty imposed by reason of such offence.

2. And whereas it is expedient that the medical profession in the Province of Quebec be authorized, under certain restrictions, to establish its own regulations to regulate the study of medicine in all its branches, and to pass its own Statutes for its management, be it therefore enacted that all physicians, at the passing of this Act, authorized to practise Medicine, Surgery and the Obstetric Art in the Province of Quebec, and their successors, shall be and are by the present Act constituted a body politic and corporate under the name of "*The College of Physicians and Surgeons of the Province of Quebec*," and by that name they and their successors shall have perpetual succession, and a common seal, with power to change, alter, destroy or renew the same; and they and their successors may under the above name, sue and be sued, implead and be impleaded in all Courts of Law and Equity, and all other places whatsoever, and shall, under the above name, have power to possess, have, receive

and preserve for the purposes of the said Act and the benefit of the said College, all sums of money which have been, or shall be at any time hereafter, given or bequeathed to the said College, and for its use: and they may at any time hereafter, under the said name, and without license of mortmain, acquire, take, receive, hold and enjoy lands, tenements or estates, or all the profits and interests accruing therefrom for the purposes of the said College, and for no other purpose whatever; and may sell, concede, rent, bequeath, alienate or dispose of the same, and act in the premises according to law.

Provided always that the value of the real estate thus held by the said corporation shall not exceed at any time the sum of four thousand pounds.

3. And be it enacted, that from and after the passing of the present Act, the persons who compose the College of Physicians and Surgeons shall be styled: *Members of the College of Physicians and Surgeons of the Province of [illegible]*.

4. And be it enacted that the affairs of the said College shall be administered by a Board of Governors composed, 1st, of two delegates from each of the Universities, Colleges or Medical Schools incorporated in the said Province giving medical instruction pursuant to the requirements of this Act, or which may be established hereafter; provided that no Professor belonging to such educational institutions become a member of the Board, except as representative of the College to which he belongs; 2nd, of twenty-four members elected by the registered Physicians of the Province, one member to be elected for each territorial division having a member in the Legislative Council, by the registered Physicians residing in such division; and the mode of election as well as the time at which it shall be holden shall be determined by a by-law of the Board, and in default thereof, by the Lieutenant-Governor in Council.

The members of the Board shall be elected for three years: but in the event of death or of resignation, a new election shall take place if the member represents a territorial division, or in the case of a delegate from a University, such University shall name another to replace him.

The first election of members to hereafter represent the territorial divisions and the Universities or Schools incorporated in the Board shall take place on the .....and the present Board shall determine the place in each of the divisions, shall name the Returning Officers and shall adopt the other measures requisite to that effect. In the event of contestation, the Board shall decide, and if the election be declared void or illegal, it shall order another to take place.

All the Physicians of the Province authorized to practise Medicine, Surgery and the Obstetric Art, shall have a right to vote, and may be elected governors at the first election.

But in order to have a right to vote or be elected governor at the following elections, it shall be requisite to carry out the regulations and submit to the requirements which shall be laid down by the new Board.

The Board shall name a President, a Vice-President, a Registrar, a Treasurer, and other officers required for the carrying out of the law.

In each territorial division a Medical Association may be established (in conformity with the regulations of the Board) whereof shall form part all the Physicians residing in said division, and whereof the representative at the Board shall be President *ex-officio*.

5. And be it enacted that the Board of Governors shall be and is hereby constituted in a *Provincial Medical Board*; and it shall meet in that quality at least twice every year, to examine candidates at such time and place as it may deem most convenient; and on such occasions seven members shall form a *quorum* for the transaction of business.

6. Be it enacted that from and after the passing of the present Act, no person shall be admitted to study Medicine, Surgery and the Obstetric Art before having obtained a certificate of competency from the said Provincial Medical Board.

7. Be it enacted that the Board shall not have the power of granting such certificate of admission to the study of Medicine without having previously subjected the candidate to a satisfactory examination upon the following branches, viz:—English, French, Latin, History, Geography, Mathematics, Algebra, Geometry, Physics and Natural Philosophy. Moreover a certificate of good morals.

Proviso—The Board shall have the power to exempt from the classical examination every individual bearer of a diploma of Master of Sciences or a certificate to the effect that he has followed successfully in a sound educational institution a course of studies comprising the subjects above mentioned.

8. Be it enacted that from and after the passing of this Act no person shall be allowed to practise Medicine, Surgery, or the Obstetric Art, before having obtained a license from the said Provincial Medical Board.

9. Be it enacted that no person will be allowed to come forward to obtain the College license who has not followed during four consecutive years (reckoning from the date of his admission to the study of Medicine by the Board) in a University, College, or incorporated Canadian Medical School, two six months courses of Anatomy; do. of Surgery; do. of Theoretical and Practical Clinic; do. of Midwifery, Diseases of women and children; do. of [illegible] Materia Medica and Pharmacy; six months course of Institutes of Medicine; three months course of Medical Jurisprudence and Toxicology; a course of three months of Botany; six months of Clinical Medicine; six months of Clinical Surgery; three months of attendance at Lying-in Hospitals, or a certificate proving that he has had six cases of accouchements; a three months course of Hygiene; do. of Practical Chemistry; do. of Practical Surgery. Moreover a certificate of good morals and 21 years of age.

10. Be it enacted that the College license shall not be granted to any student who has not undergone before the Board a satisfactory examination upon the branches mentioned in the preceding clause.

Proviso.—The Board shall have power to grant, without examination, the College license to every individual bearer of a diploma from a University or Incorporated Canadian Medical School, provided such diploma has been obtained in conformity with the following stipulations:—

1st. All bodies teaching Medicine, Surgery and the Obstetric Art shall be required to have at the disposal of the pupils an Hospital of at least 50 beds, a Lying-in-Hospital of at least 25 beds, a Library, a Museum of Natural Philosophy, of Natural History, and of Botany, containing all the instruments and objects deemed requisite by the Board to facilitate and illustrate the lessons given by the Professors.

2nd. A Committee of three members, whereof two named by the Board and one named by Government, shall have to attend the examination of pupils in the Universities or incorporated Medical Schools, in order to ascertain if the diplomas are granted according to the merit of the pupils, and if the requirements of the law are fulfilled. And if, from the report of the delegates, there be contravention, the Board shall have the right to examine those pupils anew, or to completely refuse them the College license.

11. And be it enacted that the said College shall have the power to make regulations as to the admission by the Universities of Medical students from foreign countries, also as to the granting of the College license to the bearers of diplomas from Foreign Universities, and to cause to be established under oath administered by the then President, the genuineness of every certificate or credential letter presented by every candidate for the study or practice of Medicine; and to make all such rules and regulations for the proper direction and management of the said Corporation; which said rules and regulations before coming into force shall be sanctioned by the Lieutenant-Governor in Council.

12. Be it enacted and declared that it is and shall be declared sufficient, that the said Schools of Medicine respectively cause to be given annually one hundred and twenty lectures upon the subjects regulated by law, in the English language or in the French language, it not being required that any lecture be delivered in both languages, and each lecture in whatever language it may be delivered shall count as one of the one hundred and twenty.

13. And be it enacted that all persons who shall obtain from the College of Physicians and Surgeons of the Province of Quebec (a License) authorizing them to practise shall bear the name of *Licentiate* of the said College, and shall consequently be eligible in due time as members of the said College, and such persons so elected shall be immediately eligible as Governors; and such election, [illegible] member of the said College or as Governor there-

of, shall be made subject to such rules and regulations to that effect, and in such manner as the Corporation shall make them for that purpose, and sanctioned by the Lieutenant-Governor of the Province as above mentioned.

14. And be it enacted that the Board of Governors above mentioned shall regulate the fees to be paid by all candidates for the study of Medicine, provided the amount of said fee do not exceed the sum of five dollars currency; as also by all persons who shall obtain from the said Board (a License) authorizing them to practise Medicine, provided the said fee do not exceed the sum of three dollars currency; and the said Governors may dispose of the said fees in whatever manner they think most conducive to the interests of the College.

15. That Midwives shall undergo an examination before the Board to obtain a license, without which they shall not be allowed to practise. The Board, when deemed advisable, may require from those females a course of theoretical and practical midwifery.

16. Be it enacted that each physician practising after the sanction of this law shall be required to have himself registered within the period of one year on payment of a sum of.....under pain of a penalty of..... payable every year until he has complied with the law.

17. Be it enacted that every physician convicted of felony before a court of justice shall lose his rights as such.

18. Be it enacted that every person not registered shall not have the right to sue for medical services.

19. Be it enacted that no person can be appointed as Physician in the public service of the Province, or to an Hospital receiving Government subsidies, unless said person be registered.

20. Be it enacted that every person not registered who shall be convicted of having practised medicine, &c., shall, upon summary conviction before a Justice of the Peace, be condemned to pay a fine of not less than $25, nor exceeding $100.

The same penalty shall be incurred by every person assuming the title of Doctor, or other name giving to understand that he is legally authorized to practise Medicine, or offering his services as Physician.

The same penalty shall also be incurred by every individual offering through the public prints to sell medicines for the purpose of promoting abortion, or against morality, as well as by the proprietors of such public prints.

21. Be it enacted that the books of registration of the Board shall be *primâ facie* evidence in all Courts of Justice.

22. Be it enacted, that in every prosecution the proof of registration shall be incumbent upon the prosecuted.

23. Be it enacted, that the prosecution shall take place before any Justice of the Peace having jurisdiction in the locality where the offence was committed.

24. Be it enacted, that such Justice of the Peace, besides the penalty above mentioned, shall have power to condemn to costs; and in the event of the costs or the penalty not being paid, to order an imprisonment for a term not exceeding thirty days.

25. Be it enacted, that every person convicted of illegal practice, who shall give notice of appeal, shall be bound, before being set at liberty, to give sureties for the amount of the penalty, the costs of judgment and of Appeal.

26. Be it enacted, that the fines shall be paid over to the Justice of the Peace, and by the latter, to the Treasurer of the Board. Any person may prosecute in his own name, or submit a complaint before the Court, and the Board shall have power to allow the prosecutor the whole or a portion of the fine, provided the Board have the right to stop the proceedings by an order signed by the President.

27. And be it enacted, that the present Act shall be a public act, and that it shall be taken and accepted as such in all Courts of Justice and by all persons in this Province.

Since we wrote the editorial which precedes the above Bill, the 24th of November has come and gone. As we expected, the special meeting of the members of the College called for that date was declared illegal, and adjourned without transacting any business whatever. Nothing further can be done now till the meeting of the College in Montreal next May, so that ample time will be thus given for the profession to consider the proposed Act.

WESTERN HOSPITAL, MONTREAL.

We have had, within the last few months, a number of enquiries from our subscribers, with regard to the position of the above-named projected new hospital, and we make the following explanations with a view of offering them all the information possible. In January last, the subscription list amounted to about $33,000; this, exclusive of a sum of $12,000 subscribed by Major Mills (a philanthropic American gentleman, who for many years past has made Montreal his home,) to be used solely for the erection of a wing of the proposed institution, to be called "The Mills Wing." A beautifully situated lot of ground—forming an entire block—was secured in the western section of the city, at a cost of $30,300, and the subscriptions were called in by circular. A very great many promptly responded to this call, and a first payment was made for the ground,—but it was evident beyond a doubt, that very energetic measures had been taken by some persons to break up, if possible, the proposed institution. In April last, a spurt of activity by its friends, however, enabled them to make a second payment on behalf of the ground The unfortunate depression in trade, with the accompanying hard times followed—and with an odd exception now and then, subscriptions were impossible to collect. Still, early in the autumn th Treasurer was able to pay his interest account to date, making a total payment on account of the ground since it was purchased, of about $16,000. It is intended to make another payment of $5,500 in December, and for this object an appeal is being made to subscribers to pay up, and in a measure, it has been very successful. At the time of our writing, we learn that about three thousand five hundred dollars has been collected since the end of October, and this in spite of the stringency of the money market. It is gratifying to know that, with a very few exceptions, there is among the subscribers a warm interest felt in the undertaking, and that those who, from the condition of trade, are unable yet to meet their subscriptions, express the hope of being able to do so very shortly. When the above payment has been made, considerably more than one half of the cost of the ground will have been paid, and we believe it is the intention of the Governors of the Institution to clear one-half the lot, placing the encumbrance or mortgage on the remaining

half. On the portion which will be thus freed, we understand Major Mills will, in the spring, proceed with the erection of the wing, which is to receive his name. Such is the present position of the affairs of the Western Hospital, and we think that, all things considered, especially the opposition it has met with from a quarter from which we think it was not to have been expected, we are of opinion that the friends of the new hospital have every reason to be satisfied and take courage.

COLLEGE OF PHYSICIANS AND SURGEONS OF LOWER CANADA.

The semi-annual meeting of the College of Physicians and Surgeons of Lower Canada was held in Laval University, Quebec, on the 29th of September.

After the routine business of the College had been completed, the following gentlemen graduates of the undermentioned Universities on presentation of their Diplomas received their licenses :—

Laval University.—Drs. J. P. Boulet, L. E. O. Desjardins, W. Biledeau, A. Valée, N. E. Dionne, L. J. A. Dostaler, G. B. Walters, N. A. Desjardins.

McGill University.—Drs. G. L. Hume, J. A. Meek, J. L. Tunstall.

Queen's University.—Dr. H. Saunders.

Bishop's University.—Drs. J. A. Pidgeon and F. Benoit.

Several gentlemen were admitted, after examination, to the study of medicine.

After adjournment the members were entertained at the Stadacona Club.

PERSONAL.

Dr. Duncan (M.D. McGill College, 1874) acted as surgeon to the Allan mail steamship Sardinian, on her last trip homeward from Montreal.

Dr. Kennedy, Professor of Surgery in Bishop's College, whose illness we alluded to in our last issue, left Montreal on the 15th November, for Colorado, where he intends to pass the winter. A number of his friends, also all the students of Bishop's College assembled at the station to bid him farewell. Previous to his departure his class, through a deputation, waited upon him and presented him with the following address beautifully engrossed on parchment:—"We your students in Surgery, having heard with deep regret of your illness and that you contemplate a temporary removal to a more congenial climate, cannot allow the opportunity to pass without expressing the deep debt of gratitude we owe to you. Your continued kindness, unwearied attention and zeal for our welfare has endeared you to us all, and we sincerely trust that the methods used for your recovery will be the means under the Divine blessing of promoting a speedy and permanent restoration to health. We hope you will experience much pleasure and benefit from your contemplated journey, and soon return completely restored to health, strengthened and invigorated to resume your invaluable labours in our midst."

Dr. Davis (C.M., M.D., Bishop's College, 1875) has settled at Buxton, East Coast, Demerara, West Indies.

REVIEW.

On Poisons, in relation to Medical Jurisprudence and Medicine. By ALFRED SWAINE TAYLOR, M.D., F.R.S., Fellow of the Royal College of Physicians, London, and Lecturer on Medical Jurisprudence in Guy's Hospital. Third edition, thoroughly revised, with 104 illustrations. Philadelphia: Henry C. Lee, 1875. Montreal: Dawson Brothers.

It would seem to be an almost superfluous task to say anything to recommend the work, the title of which heads this notice. For years it has been the standard work, and the recognized text book, in most of the medical schools, not only on this continent but likewise in Great Britain, for its author, as an authority in matters of Medical Jurisprudence, stands at the head of the list. Complete as seemed previous editions, the present one is much more so; indeed, the revision has been so complete that, to all intents, it is a new work. An improvement on former issues is the number of illustrations which have been introduced, and which add very materially to the value of the book. Taking it for what it is intended—a manual for students and practitioners in law and medicine, we do not know any equal to it.

Reports of Societies.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

The fifth annual meeting of this Society was held in their rooms, Natural History Society building, on the evening of the 22nd of October, the President, Dr. Reddy, in the chair. The following officers were elected to serve for the ensuing year. President, Dr. Robert T. Godfrey; 1st Vice President, Dr. Francis W. Campbell; 2nd Vice President, Dr. J. M. Drake; Secretary-Treasurer, Dr. John Bell; Council, Drs. William Gardner, Thomas G. Roddick and William Osler.

After routine business the retiring President, Dr. Reddy, read his valedictory address as follows:—

GENTLEMEN:—I have to congratulate you that our Society has completed its fifth year.

It is customary at this our annual meeting to give a summary of the work which has engaged us during the past twelve months. I have much pleasure in laying before you the list of the papers, read and by whom contributed. To avoid confusion I have arranged them in alphabetical order. They have, I regret to say, been only twelve in number, but many of them most original and of deep practical interest.

1st. Dr. Austin read an able paper on Hæmatophilia, a very rare disease in this country, but quite common in Germany.

2nd. Dr. George Baynes, a paper on Meningeal Hæmorrhage, with a very careful and accurate post-mortem.

We have at the same time to thank Dr. Howard for the interesting and instructive remarks (in writing) with which he supplemented Dr. Baynes case, being part of the time associated with him in consultation.

3rd. Dr. Bessey read a paper "Notes and Observations on Scarlatina and allied diseases," consisting of reports of a number of malignant cases with treatment, &c., that occurred in his practice, which was prepared with a great deal of care.

4th. Dr. F. W. Campbell gave an able paper on "Three Fatal Cases of Diphtheria" that occurred in his practice. The reports were most instructive and exhaustive.

5th. Dr. Cline gave an interesting report of a case of "Progressive Muscular Atrophy," which was carefully noted by him at the Montreal General Hospital.

6th. Dr. Gardner read a paper on "Pelvic Hematocele," that had been under his care, which was early discovered by him and resulted in complete recovery.

7th. Dr. Kollmyer read a paper on "Guarana," giving its history, mode of preparation and its physiological action, which exhibited deep research.

8th. Dr. Osler read a very original paper and most interesting on the "Pathology of Miners lung," accompanied by drawings—a most masterly production.

9th. Dr. Roddick read a very interesting paper on "Eye cases, Surgical," treated by him at the Montreal General Hospital, which at first presented features that rendered the prognosis doubtful, but all happily terminated in complete cure.

10th. Dr. Reddy read a paper on "Popliteal Aneurism," cured in twelve hours by digital compression, after failure with Carte's Compressors.

11th. Dr. Trenholme read an interesting paper on "Traumatic Tetanus," which resulted in a complete cure, chloral and potassium bromide being the remedies used.

12th. Dr. Wilkins read a paper on "Extroversion of the Bladder," exhibiting drawings of the parts, both before and after the operation, which resulted in a complete cure, rendering it a most unique case.

It is a matter much to be regretted that, in such a large and representative city as Montreal, so little interest should be taken in this Society by its members, as is seen in the thinly attended meetings, the highest number not amounting to more than one-fourth of the entire, notwithstanding the many original, valuable and carefully-prepared papers that have been read from time to time. Indeed, when I look at such an array of members in the long list before me, (numbering 60) and consider what a loss must be sustained, that so much experience and talent should remain silent and unproductive, I feel it is a matter deeply to be deplored. We must hope that in the coming year this will be remedied.

We have to record but one death from amongst our number during the past year, the kind and warm-hearted friend and able practitioner, Dr Sutherland.

We have also to regret the removal of our late associate, Dr. Austin, who has returned to Sherbrooke, at the urgent request of his former patients.

I cannot conclude without thanking this Society for the honor conferred in choosing me as their President, my only regret is that it has not been more efficiently filled.

Gentlemen,

I wish you farewell.

MONTREAL, 22nd October, 1875.

MARRIAGES.

At Hull, P.Q., on the 28th October, F. Benoit, C.M., M.D., to Miss Margaret Boult, eldest daughter of Captain John T. Boult, B.A., formerly of Kensington, England.

In Notre Dame de Grâce, Côte des Neiges, on the 8th September, by the Rev. Mr. Maréchal, André Latour, C.M., M.D., Demonstrator of Anatomy, University of Bishop's College, to Marie Marguerite Robert, daughter of Emile Robert dit La Mouche, of Côte des Neiges.

BIRTH.

On the 13th October, the wife of E. A. Duclos, chemist and druggist, of a daughter.

Original Communications.

Mans Moral Responsibility viewed from a Scientific Standpoint. By Henry Howard, M.D., M.R.C.S., Eng., Medical Superintendent Longue Pointe Lunatic Asylum. (Read before the Medico-Chirurgical Society of Montreal December 3rd 1795.)

MR. PRESIDENT AND GENTLEMEN,

The subject to which I beg to draw your attention this evening is, I consider, one well worthy of your consideration. *Man's Moral Responsibility* Examined by the Light of Science, in other words, how far man is obligated to obey that Moral law which governs the universe, that great unwritten law, stamped upon the soul of man by the hands of its Creator, but which, through physical defects, the creature does not always recognize. It is a very easy thing to say that every man is morally responsible for his acts, but it is quite a different thing to prove the assertion. I believe that, under certain circumstances, man is morally responsible for the greater part of his acts; under other circumstances he is not morally responsible and that, under no circumstances, is he morally responsible for all his acts. To assume that a man was thus responsible would be to assume, not that every man had a free will, for that every man has, but that every man was so organized, mentally and physically, as to direct his will and make all his thoughts, acts and deeds subject to his will. Now this we know is not by any means the case: every man from his own experience knows that he cannot always, indeed that he very seldom can, control his thoughts. We frequently think of the very thing we do not wish to think of, and cannot think of what we would wish to think of. A horrible sight attracts our notice, we would feign forget it, but our thoughts haunt us with it night and day, and no force of our will can enable us to forget it. How many thousand occurrences of our past lives would we not all willingly forget, but we cannot do it,—the most simple occurrence, brings the past into our thoughts, with the greatest vividness, without any action of our will. On the other hand, how often do we will to remember the most simple thing, such as a word or the name of a person, and by no act of our will can we think of either the one or the other. Again, take the passions arising from our emotional organization—love, joy, grief, jealousy—none of these are at all times under the control of the will; we may conceal them to a great degree, but we cannot always control them by any force of the will. Thought and desire, then, is, to say the least of it, not always under the control of the will. Are our acts to do or not to do, always under the control of the will? I think not. We all know how many things we will to do and cannot do from one cause or another; and I believe that it is the experience of nearly all men that, at some period of his life, from an internal force, he was impelled to act contrary to his will. Again, no matter how much we will it, we cannot always control or change either hereditary or acquired movements of our body, or peculiarity of action. It is a truly scientific fact that every man has a free will, and it is simply nonsense to talk of any one in the world controling the will of another. Our acts may be controlled by external circumstances contrary to our will, but no external power can control our will, though a man may be so situated that he is powerless to obey his will. An other important scientific fact, the comprehending of which is necessary for the well-being of man himself in particular, and society in general, is that the will itself, unless it is properly instructed through the organs of sense, cannot be a guide to our physical organization, and, unless that the mental organization is healthy and well-balanced, the will can only act upon it by directing it wrongly, as it does the mental organization of the idiot, the imbecile, the lunatic, and the morally insane, which causes them all to be irresponsible for their acts. Again, no matter how well instructed the will may be, and how strong may be a man's reasoning powers, if he is born a cripple he is not responsible that he cannot run, nor if he be a paralyzed man that he does not escape from a burning house.

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

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

Locke, and the philosophers of the Utilitarian school, taught that there were no innate principles in the human understanding, no primary notions, stamped upon the mind of man. He would not have fallen into this error had physiology and pa-

thology proved in his day, as they have in ours, that mind and body are one, nor would he have confused the mind with the soul. He would have seen that procreation was a whole, not a part, so far as the natural order went; and that man's mental organization was as much due to his progenitors as was his physical formation. The opposing school, the Intuitionists, recognized the fact of mind and body being one procreated animal man, and the soul a distinct thing, coming from the hands of the Creator, at the very moment of conception. They consequently recognized the fact that there were primary innate principles stamped upon the mind of man. Metaphysicians have not agreed, and perhaps they never will agree, as to the exact time during gestation that the soul enters into the child. But this has nothing to do with the question before us, so long as we recognize the fact that man possesses a soul, a supernatural part, that he does not inherit from his progenitors, but is given to him direct from God, and that it is this soul that makes the difference between man and all other animals, — I say so long as we recognize that man possesses a supernatural part, the soul, for my lecture is only intended for such. I am not going to enter into the question whether a man does or does not possess a soul, but simply take it for an undisputed fact. If, however, you ask me what is the power of the soul upon the body, I answer, that the soul and will are one, or rather that the will is the operation of the soul, and, as I have already said, perfectly free in its action for good or evil, though limited in its power, according to the physical organization it has to deal with. It can do very little with the mental organization of an idiot, an imbecile or a lunatic, and that little is all wrong; but it can be directed by the reasoning powers of the strong intellect, and by so doing bring the whole man into subjection.

I would not have you to suppose that the only attribute of the soul is will, but that by this attribute do we best comprehend it; by this attribute we know that it is something, not of, but acts upon the intellectual portion of our mental organization, and is again acted upon by it. It is neither mind nor body, but something distinct from both. Conscience is another attribute of the soul. You may ask, is it matter, or is it spirit? For nearly two thousand years the answer to this question has been fought in every shape and form, and with much injustice, bitterness and bad feeling, by two contending parties, the Materialists and the Spiritualists, both parties defending their opinions by appeals to Scripture, thereby admitting that it was outside the *dome* of Science. And it appears to me that the battle has been, and yet is, a very fruitless one, particularly as both parties agree that the soul leaves the body at death, and lives for ever, that it is immortal. Now I *believe* that the soul is spiritual, but I am not going to find fault with Mr. Tyndall because he *believes* it material, when, as I have already said, he believes it, if I understand him right, to be immortal. No doubt but that the difference in our views is due to the difference there is in our mental organizations, and the impressions made upon the same in our childhood, so that if we would we could not think alike on a subject that science cannot explain by either physiology or pathology, like it does mind and body.

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

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

Messenger Bradley, writing on the subject of the hereditary transmission of our moral qualities, says: "To a certain extent the doctrine that a man's moral nature, like his physical, is made for him does meet with general acceptance, for, admitting the influence of hereditary temperaments, a large concession is made to the truth of the agreement, and no one will be bold enough to deny that different temperaments, which the individual volition will vainly attempt materially to modify, are inherited, such as cheerful, morose, timid, bold, &c., and that these again are associated with special bodily conformation. The common expression, it is just like Roger, he is cursed with a bad or blessed with a good temper, &c., indicates a general acceptance of the statement that different men possess different moral temperaments. With a man whose nature is passionate it is a blow

and a word; the phlegmatic man, under similar circumstances, consults his lawyer." To praise firmness or good temper in some men and to blame others for weakness or peevishness is on a par with praising an eunuch for chastity or blaming an alfuro for fetichism. Nor does heredity influence the character in a physiological manner only. But pathology often plays an important part in determining the resultant moral nature, not only in a vast number of diseases, such as insanity, gout, consumption, cancer, epilepsy, &c., each of which influences the moral temperament hereditary; but many habits and even tricks of manner are ascertained to be transmitted from parents to off-spring without any accompanying disease, and such cases may be regarded as instances of the inheritance of moral pathological treats. The influence which many diseases exercise upon the nature of the individual is prodigious, *ergo*, in the various forms of insanity the whole moral nature is frequently not merely modified, but completely changed, and the bias which the nature takes may be shown to be in every instance dependent upon the part of the brain affected. Thus pathology enables us to state that irritation of the frontal cells produces insanity of the intellect, *acute mania*, and that softening of the same parts leads to *dementia;* that irritation of the parietal and occipital cells results in moral insanity, melancholia, &c., often leaving the intellect quite unclouded; and that irritation occurring still further back in the cerebellum and medulla oblongata produces a want of controlling power, or what might be called insanity of the muscles. "It is easy, then, to understand from this how disease will often modify, or even quite change a man's moral nature. Solomon, with inflamed frontal cells, becomes a raving maniac; and we have but to irritate the parietal cells to turn Diogenes into a pickpocket; excite the cerebellum, and Joseph is turned into a Don Juan."

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

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

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

I have spoken of moral insanity: I shall now explain to you what I mean by that term. To Mr. Maudsley of all other men belongs the credit of having drawn attention to this form of mental alienation. Like any other form of insanity, it is caused either by hereditary transmission or physical disease.

In both cases there is some abnormal state of the moral portion of the nervous centre. Pathology has shown that, according to the symptoms, the disease will be in the cells of the cortical portion of either the latter and posterior portions of the cerebrum, or the cortical portion of the cerebellum and medulla oblongata. What is extraordinary in this form of insanity is that the afflicted person is in no sense a maniac. His intellectual organization will be all right; no hallucination, illusion or delusion. A morally insane man can reason just as well as he ever reasoned; indeed in some cases the reasoning power seems to be sharpened. Yet, is the person actually mad and irresponsible for his acts? His

disease impels him to commit acts contrary to his reason. The honest man of yesterday becomes a rogue to-day, by an impulse that he cannot control. The sober man of yesterday becomes the drunkard of to-day from a similar reason. The peaceful man suddenly becomes a murderer, and the chaste man impure. And all this simply the result of disease; simply cases for medical treatment, and not for punishment. It is not moral depravity, it is moral insanity.

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

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

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

Again, a well-educated, highly-intellectual married man, of irreproachable character, a hard student, loves his wife and children, and works hard to make provision for them, has a sudden impulse to kill his child,—he has no reason for such an act, it is simply an impulse that he feels he cannot control,—he has neither halucination, illusion, or delusion, but he feels this terrible impulse growing upon him from day to day, and from day to day growing stronger. He makes known his desire to his wife or medical adviser, is properly treated, cured, the desire departing from him; he is saved from the felon's grave.

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

I have spoken of moral insanity from hereditary transmission. It is harder to draw the distinction between this form and moral depravity than the form that appears from accidental disease, such as I have described; yet it is a distinct disease, just as much so as is gout or phthisis, and, like those diseases, may remain dormant for years, perhaps never appearing, unless some particular exciting cause calls it forth. The symptoms are very similar to those that occur in the forms I have described, but more vari-

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

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

It is impossible for me to conceive any one in the world committing crime simply for the sake of committing crime. I believe every man commits crime for the pleasure he derives, or believes he will derive from the act, or under the influence of uncontrollable passtion. It is only upon this theory we can ever comprehend the criminal class of society. We can no more enter into their ideas or thoughts, or their motives, if we reject this theory, than we can enter

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

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

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

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

Next we would take a different view of the criminal class, and provide other means than that of punishment to protect society from their ravages; for punishment for the prevention of crime has been a melancholy failure; in fact, it has only made the criminal more criminal. So much has been suggested to reform the criminal class that it is very hard to suggest a new remedy. I think the best thing to do with those adults and adolescents who are well known to belong to the criminal classes,—those creatures who are always to be found in either the court-house, the prison or lunatic asylum, I say, lock

them up for life, not as a punishment, for I would have their lives made to them as happy as possible, but to protect them from themselves, to protect society from them, but above all things to put a stop to the procreation of such a class of beings; for as long as they live together and procreate, so long will we have a criminal class of society: therefore, I say, separate the sexes and lock them up for life. Very good, you will say, in theory, but very difficult in practice. Perhaps so.

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

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

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

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

Fibro-Cystic Bronchocele—Operation and Recovery. By WOLFRED NELSON, C.M., M.D., Assistant Demonstrator of Anatomy and Curator of Museum, Medical Faculty, University of Bishop's College, Montreal, Physician Accoucheur to the Female Home, &c., &c., (with Photographs:) Read before the Medico-Chirurgical Society of Montreal on the 17th December 1875.

Family History.—Goitres of various developments have been hereditary in the patient's family as follows:—

Maternal grandmother, married at the age of eighteen; when carrying her first child, goitre appeared; she had fifteen children, of whom four are living; her sister also had a slight goitre.

Mother is living in good health, aged sixty-two. The goitre in her case commenced at the tenth year. The tumor is a large and well developed one, about the size of a man's fist, on the right side of the neck; it is attached to the sterno-mastoid muscle; is hard, and seemingly purely fibrous. Early in life it interfered with respiration, it then pressed outwards, and the difficulty ceased, and only troubles her at present when she works hard, when it slightly interferes with respiration.

Paternal grandmother, her brothers and sisters, all had goitres; they inform me that the goitres in their cases were enormous. Of six of her sons, brothers of the patient's father, one only escaped having the disease; two were treated early in life with Ung. Iodi. for a long time, and are reported to have been cured, as the enlargement ceased, and they experienced no further inconvenience.

Father of patient, a day laborer, aged sixty-four, enjoys excellent health; has a well developed central goitre, about the size of an egg, seemingly fibrous, attached to the trachea; it appears to be bound down by fascia to the sternum, as it moves

but slightly during the act of deglutition. The bronchocele in his case first made its appearance at the age of forty, after having moved into the parish of St. Sauveur, to be hereafter described, when he commenced drinking well and spring water,—he dates his trouble from that time only. The locality is that of St. Sauveur, County of Terrebonne, Prov. Quebec, some forty-four miles north of Montreal, on the North river. Also that of St. Scholastique, in the same location, and its neighborhood, the country thereabout being hilly and rocky, of the magnesian limestone formation. Nearly all the inhabitants drink well or spring water, or that from small rivulets. The water is described as brackish; when allowed to stand for a few hours in tin vessels it leaves a yellowish white stain, making their surfaces rough. The stones and pebbles found in the water are coated with a gritty slime.

Goitres are very common all through this part of the province, particularly at the Rivière à Gagnon, where the *habitants* all say, when questioned about their necks, "*c'est l'eau qui cause cela.*" Dr. Kennedy has some twelve or fifteen families among his patients who have moved into Montreal from this locality, and many others have consulted him from there, in nearly all of whom the disease obtained in some form. In several it became partially developed cretanism.

To return again to the history of the patient's family. Two of her sisters have general goitres, causing great fullness of the neck, but no marked deformity. The families of the patient's people—father excepted—were all born in the above parishes. The goitres steadily increased in growth while there: all enlargement ceased, however, after coming into Montreal, where they have resided for the last eight years.

Patient's History.—She is a single woman, of small figure, aged thirty-two, and has always enjoyed fair health. The bronchocele in her case first appeared at the age of sixteen. The tumor went on gradually increasing until it had attained the size of a small teacup; it at times caused difficulty in breathing. The patient first consulted me on Sunday, October 18th, 1874, to ascertain if anything could be done to remove the deformity.

The tumor on examination, was found attached by its base to the left side of the trachea, and deeply between that organ and the sheath of the carotid; it appeared to involve only the left thyroid gland; it had no pulsation, and rose and fell during the act of swallowing. On examining it carefully, I considered that an operation was justifiable. She readily consented, as for several years she had kept in-doors, being very sensitive about the attention that her apperance in public created. Dr. Kennedy saw the case with me in consultation afterwards, and confirmed my opinion. It was then decided to operate for the removal of the tumor on Saturday, October 24th, at 10 a m. The operation commenced in the presence of Dr. David and other physicians. The patient was placed on a suitable table at her residence, chloroform being administered by Drs. Reed and Webb. She came readily under its influence without any difficulty, and throughout the anæsthetic acted very satisfactorily. Assisted by my friend Dr. Kennedy, Professor of Surgery, Medical Faculty of Bishop's College, an incision was made five inches long, extending from a point about one inch on the left side of the trachea, on a level with the upper border of the thyroid cartilage, passing somewhat obliquely downwards and inwards to within a short distance of the sternum. On reaching the fascia it was taken up carefully and divided layer by layer, all vessels being tied before severing. No veins of any size were divided. On coming to the last covering, the tumor slipped out freely from its sac, leaving it attached by a base of two inches in diameter; the vessels entering the tumor were carefully dissected out. Extreme care had to be observed at this stage of the operation, owing to the intimate relation of the tumor to the sheath of the carotid. At this point the superior thyroid was ligated. Growth here had extended downwards between the trachea and the sheath, pushing the latter to one side outwardly; the tumor was then completely removed by a few final touches of the knife. Very little blood was lost during the operation, probably not more than three or four ounces. The cavity was then carefully sponged out with carbolic lotion, 1 x 60. It had rather a formidable appearance, the finger was easily passed between the carotid vessels and the trachea. Some time was permitted to elapse to allow for the stoppage of venous oozing, the sides of the wound were then closely brought into apposition and carefully closed by silver sutures. The effect of the chloloroform having passed off, she was enjoined to be quiet, cold water dressing was applied. Pulse full and regular. About half an hour after the operation she vomited some bilious-looking fluid, when blood was observed to be flowing from beneath the dressing. On examination the cavity of the wound was found to be filled with blood, which was forcibly ejected from beneath the sutures; they were removed and all clots washed out. The bleeding appeared to be due to capillary oozing;

it was considered best to religate the superior thyroid. The cavity was then washed out with a solution of ferri. perchlor., 1 x 20, this at once checked the bleeding. The wound was allowed to remain open until it became thoroughly glazed, the sides were then again brought into apposition, but no sutures were put in, the parts being kept together by means of adhesive straps and pads. At one o'clock she again attempted to vomit, when I held her head to prevent any stretching of the neck. The slightest movement seemed to increase the irritability of the stomach. I kept her in one position until three o'clock, when on slight movement the nausea again returned. By holding her head firmly against the pillow no bad results followed. At six, when I carried her into another room to her bed, nausea again caused me some anxiety: securing her head as above prevented any stretching of the parts. She was placed safely in bed, but a few drops of blood coming away.

After Treatment.—Saturday, Oct. 24th, 7 p.m.—Pulse 98; 11 p.m., 110. The cold dressing was carefully renewed by attendants. She was kept on her left side, the head steadied by several pillows, to allow for any drainage. Positive instructions were given her not to stir. At midnight she felt pretty comfortable; slept at intervals; made several abortive attempts to vomit. A small quantity of brandy and water was ordered to be given every hour, when awake—a dessertspoonful—it seemed to increase the nausea, in fact water did. Swallowing caused considerable pain, which she referred to the seat of the wound. She retained the same position throughout the night, her attendants carrying out my instructions admirably.

Sunday, Oct. 25th, 10 a.m.—Pulse 120. Has vomited a little, put her on Tinct. Digitalis m v ter horæ; the irritability of the stomach persists; the edges of the wound look well, somewhat swollen and hot; beef-tea and brandy are continued. Still retains position on her side, which allows of the free escape of sanious fluid from the inferior pocket of the wound. She complains of the position; no inclination to sleep. She had a good night's rest from midnight. Pulse 4 p.m. 120; 9 p.m. 125.

Monday, Oct. 26th, 9.30 a.m.—Pulse 116. Discontinued the Tinct. Digitalis and gave Tinct. Aconit. B. Phar., same dose. Had an excellent night's rest. Contrary to orders, she had sat up in bed to have it partly re-made before I made my morning visit, when she again vomited a bilious-looking fluid. The edges of the wound look very well, less heat of parts. Tongue furred. 4 p.m., pulse 96, diet as before. She dislikes the brandy. Swallowing still causes pain; is cheerful and hopeful. 10 p.m. Pulse 100.

Tuesday, Oct. 27th, 9:30 a.m.—Pulse 96. Slept well. Urinates freely; no motion from bowels. The discharge of pus from the wound is excessive and looks unhealthy. Commenced injecting carbolic lotion, 1 x 60 into wound at its inferior edge or pocket, four or five times a day. The pads and adhesive straps were so arranged that this did not interfere with them. A broad bandage around the neck kept all in situ. Less irritability of the stomach; retains her diet better. Soreness of the neck and pain on swallowing are less. The brandy evidently disagrees; have stopped its use. 4 p.m., pulse 112; 10 p.m. 116.

Wednesday, Oct. 28th, 11 a.m.—Pulse 100. Patient is now allowed to rest on her back. She sleeps well. The carbolic lotion acts like a charm, the discharge is less, and has changed its character; is healthy and sanious in appearance. Less heat of parts, redness is diminishing, also the swelling. She talks of getting up. At noon she vomited, when I was obliged to remove the dressing again, and washed parts in a weak sol. of ferri. perchlor. Its interior, as far as could be seen, looks well and healthy. Vomiting has ceased, due partly to stopping the brandy. 4 p.m., pulse 112. Face of a more natural color. 10 p.m., pulse 120.

Thursday, Oct. 29th, 10 a.m.—Pulse 98, full and regular. She slept all night. Bowels have not moved. Ordered pil. cath. co. j'. Swallowing now causes no pain. She looks a great deal better, and sat up for fifteen minutes in bed. The wound is healing nicely from above downwards. Carbolic lotion is continued regularly. The swelling of the lips of the wound and the heat of parts have lessened rapidly since its use; discharge but slight. 4 p.m., pulse 104. Wound is dressed daily. 10 p.m. pulse 100.

Friday, Oct. 30th, 6:25 a.m.—Pulse 100, full and regular. Has had an excellent night's rest. 4 p.m, pulse 100. Had a large evacuation from bowels; sat up in bed for half an hour. 8:50 p.m., pulse 100; sleeps well at intervals through the day. Discharge free of laudable pus. Pain on swallowing has ceased.

Saturday, Oct. 31st, 12 noon.—Pulse 98. The healing continues nicely from above downwards, gentle pressure removed about two drachms of thick healthy pus. Less œdema of parts and redness of lips of wound. She now takes solid food; sat up

in bed for an hour. 5 p.m.—pulse 98, discharge free. This appeared to come from a little pocket at the lower part of the wound. Gave a second pil. cath. co. 9 p.m.—pulse 98.

Sunday, Nov 1st., 12 noon.—Pulse 98. Discharge free; she eats and sleeps well. On pressure removed a drachm of pus. Have increased strength of carbolic lotion. Had a large and full stool; tongue cleaner. Strapped inferior part of wound closely together. 8.20 p.m., pulse 98. Has slept during the afternoon. Fever is disappearing; swallows with perfect ease. The rapid subsidence of the swelling following the use of the carbolic lotion is very satisfactory.

Monday, Nov. 2nd, 8 a.m.—Pulse 64. Has slept well; eats heartily; sat up in bed for an hour or two; also on Sunday afternoon and evening. Still a considerable discharge of laudable pus. Marked shrinkage of tissues and less swelling. 9.30 p.m., pulse 94, full and regular. Has passed a very comfortable day: no pain; tongue cleaner; eats and sleeps perfectly.

Tuesday, Nov. 3rd. 12 noon.—Pulse 90; sleeps well. Shrinking continuing. Discontinued tinct. aconit. She sits up part of the time; is cheerful. Slight secretion of pus, not more than half a drachm coming away on gentle pressure, it is thick and laudable. Still using the carbolic lotion, it acts so well, and keeps wound fresh and clean.

Wednesday, Nov. 4th, 2 p.m.,—Pulse 88. Has been up knitting. A few drops of pus were removed on pressure; swelling has nearly disappeared. Eats, sleeps and looks well. The wound is entirely healed at its upper part, and looks healthy.

Thursday, Nov. 5th, 4 p.m.—Pulse 84. All going on in a satisfactory manner; got about half a drachm of very thick pus from pocket. Swelling gone. Commenced dressing wound every second day. Still inject the carbolic lotion, and use it externally.

Friday, Nov. 6th, 5 p.m.—Pulse 84. Closing of wound goes on. A few drops of pus discharged. Keep opening free for drainage.

Saturday, Nov. 7th.—Pulse 84. Doing well.

Sunday, Nov. 8th.—Pulse 84. Dressed wound. Bowels regular. Tongue clean. No fever.

Monday, Nov. 9.—Pulse 84.—She had foolishly removed bandages before my visit, to examine wound, and opened it slightly; it looks perfectly healthy, and is healing from above, below, and from the bottom. Continued carbolic lotion.

Tuesday, Nov. 10th.—Aperture below has nearly closed. Pulse 82.

Thursday, Nov. 12th.—Pulse 80. Ceased taking notes; the patient has been up several days. Tongue clean. Bowels regular. She appears to be completely well. I saw the patient at intervals until Dec. 8th. The carbolic lotion was continued as long as the little opening would permit of the use of a small syringe. Everything went on correctly, and on the above date I discharged the patient, when the wound had closed. The cicatrix measures three and three quarter inches.

A word about the Tumor.—Its size was that of a small teacup; oblong, four inches in length, its consistence was hard and dense. A small cyst about the size of a small walnut occupied its upper extremity. It was filled with clear serous fluid, The remainder was fibrous in character. Weight, eight ounces. It has been placed in the Museum of Bishop's College.

Present appearance of Patient.—thirteen months after operation—that of perfect health. She has experienced no inconvenience whatever since the operation, and is delighted with the result.

Remarks.—The vomiting after the chloroform was due to her having eaten a hearty breakfast, contrary to orders, on the morning of the operation.

The brandy in this case was not well tolerated, and I feel confident increased the irritability of the stomach; as soon as it was discontinued the trouble ceased. The broths, &c., were well borne. The sol. ferri. perchlor, when applied to the wound immediately after the operation, when it was necessary to re-open it, and check the venous oozing, acted like a charm. Half an hour after its application the surfaces of the wound were nicely glazed over. The adhesive plaster straps, with pads to keep the lips of the wound together, were ample, as it was thought best not to re-apply the sutures, without the secondary hæmorrhage there was every reason to expect speedy union. The pulse at once fell under the Tinct. Aconiti, B. P.

The carbolic lotion prevented any septic effects from the pus, that otherwise might have led to serious results from septicemmic poisoning, and have caused no end of trouble and anxiety. At first its appearance was green and acrid, but its whole character changed within twenty-four hours. It also had a marked general effect in improving the condition of the wound.

The photographs accompanying explain themselves. The lower left being a full side face, the lower right, a half side face. The upper that of the patient as she is to-day,

1—St. James Place. 199 Canning St., West.

*A case of Bifurcated Foot with eleven toes.** By GEORGE J. BULL, M.D., of Worcester, Mass, U. S. (late of Montreal.)

The following case of congenital malformation of the foot and leg derives additional interest from its extreme rarity. It furnishes an example of the anomaly known in Geoffroy Saint-Hilaire's classification as "bifurcated hand or foot," a deformity not uncommon in the hoofed mammalia, but so rare in man that Saint-Hilaire never found mention of a single well-authenticated case.†

A girl was born in Worcester on the 5th of May, 1875, healthy and apparently well formed, except in the left inferior extremity. Her left foot presents the heretofore unheard-of number of eleven toes, and in its general appearance may be compared to a double or cloven foot. It has only one heel, but in front consists of two parts, which we may call the anterior and posterior feet. The anterior presents the great toe with four smaller toes, naturally placed and of normal proportions, but is twisted downwards and inwards in the position of extreme talipes equino-varus. Several pits or depressions over the tarsus mark the position of interspaces between the bones, and show the extent of the inversion, which is further shown by the fact of the inner border of the foot pressing against the heel. Continuous with the outer edge of the anterior foot, and curving beneath it, is the posterior part, looking not unlike a second foot, and furnished with six well-formed, small toes, situated directly below

the other five. The plantar surfaces of the two sets of digits face each other, and are separated by a groove, which, beginning between the little toe of the anterior foot and the adjoining one of the supernumerary set, grows broader and deeper as it proceeds inwards, and winding around the metatarsal bone of the great toe, is lost in the furrow between the heel and the inner border of the anterior foot. The two feet are thus quite distinct at the phalanges, and their plantar surfaces are more or less free, that of the anterior foot being visible as far back as the first metatarsal bone, while that of the posterior foot is almost all to be seen, and terminates so naturally on the heel that it is difficult to say to which foot the heel more properly belongs. The eleven toes are perfect in form; none of them are webbed. The great toe and four smaller toes of the anterior foot are normally proportioned: the little toe is the exact image of the first toe of the supernumerary set which adjoins it; the second is the longest of the six, but does not at all resemble a great toe: the third and fourth are equal in length, the fifth and sixth are shorter, as are the outermost toes in the normal foot. The six extra toes remain almost without motion when the normal toes are flexed and extended, but they appear to have distinct metatarsal bones, and perhaps two or more bones of their own in the tarsus. Passing upwards we find the left leg and thigh much thicker than the right, but in length the two sides are equal. The difference in size may be seen in the following measurements:—

	Right Side.	Left (abnormal).
The circumference of the upper part of the thigh measures.....	7½ inches.	9¾ inches.
The circumference of the thigh just above the knee measures.....	6⅝ "	7½ "
The circumference of the knee measures.....	5½ "	6½ "
The circumference of the leg immediately below knee measures.....	5¼ "	5½ "

There does not appear to be any unusual development of bone, but there is evident muscular hypertrophy. When the knee is partly flexed a rigid cord or tendon may be felt in the position of the outer hamstring, passing back of the knee, where it stands out prominently beneath the skin, and is continued downwards behind the fibula almost as low as the os calcis. The left labium majus has been twice as large as the right ever since birth. During the mother's pregnancy nothing remarkable happened, nor has anything been discovered to account for this strange malformation. I would, however, briefly call attention to the fact of the occurrence of this double deformity on the left side, the right being normal. Dr. Little* has

*Extract from a paper read before the Worcester District Medical Society, July 14, 1875.

†Histoire des Anomalies, 1832, i. 695.

*Holmes's System of Surgery, 1862, iii. 567.

remarked that congenital club-foot, as well as the deformity occurring after birth from disease of the nervous system, attains oftener a higher grade on the left than on the right side. I have not had an opportunity of verifying this statement, which refers to club-foot only, but I have observed a remarkable tendency in polydactylism to affect the left side more than the right. The malformation is altogether confined to the left side in the case above reported, and in an analogous case of bifurcated or double hand described in the forty-sixth volume of the Medico-Chirurgical Transactions, page 29. We find the same peculiarity in a case* in which the left foot presented nine toes, but no deformity existed in the other. In the *London Medical Gazette*† a supernumerary toe is mentioned as occurring on the left foot of a boy, other members of whose family were deformed in like manner. Mr. Sedgwick reports‡ the case of a girl who had a complete supernumerary finger attached to the outer side of the first phalangeal joint of the left little finger; the child's father, paternal grandmother, and paternal aunt had precisely the same deformity. Another case§ related by Mr. Sedgwick consisted of double last phalanx on the left thumb of a boy whose maternal grandfather's great-nephew had exactly the same deformity. We find mention‖ also of a boy presenting six toes on the right foot and seven on the left, his hands being similarly malformed. His mother, sister, maternal uncle, and maternal grandfather had the same number of toes and fingers. In Amsterdam a monster, drowned by its parents, had eight toes on the right foot and nine on the left, besides many other malformations. An extended search among the records has discovered many cases of supernumerary digits similar to those already cited, but only a single case¶ where the digits were more numerous on the right side than on the left. I infer, therefore, that polydactylism generally affects the left side in preference to the right.

Mr. Adams has remarked** that occasionally we observe an excess or deficiency in the number of toes associated with congenital varus. Tamplin* has made a similar remark, and has given an illustration of a case of double talipes varus in which the right foot presented a bud-like projection on the little toe, while the left had six well-developed toes.

We observe the association of congenital varus and supernumerary toes in the case of bifurcated or cloven foot, and we now find a further relationship between these deformities, inasmuch as they each attain oftener a higher grade on the left than on the right side. Whatever may be the true explanation of these facts, they show an especial tendency to deformity on the left side of the body, the side known to be the weaker one in the great majority of men.

A Case of Melano-Sarcoma of the Eye. Read before the Medico-Chirurgical Society of Montreal, Dec. 30th, 1875, by A. PROUDFOOT, M.D., C.M.

Gentlemen:—I venture to read this paper before you this evening, not from any peculiarity in the case itself, or from its great rarity, but from the extreme importance of an early diagnosis in such cases, as they generally endanger, if they do not destroy, the life of the patient. Therefore the more familiar we are with them the more likely we will be to discover them in their earliest stage, and give the patient a chance for life by at once removing the eye.

On December 4th I was consulted by Mrs. C., æt. 45, the wife of a well-to-do farmer from the United States, on account of almost entire loss of vision in the right eye. Mrs. C. was the mother of three children, had usually enjoyed pretty good health, though subject to attacks of sick-headache. About two years ago she first noticed a slight weakness of the right eye, but it was unaccompanied by pain, and therefore gave her but little uneasiness. For the last year she had been losing the sight of the eye. In August she first applied to her family physician for relief: he, diagnosing incipient cataract, put her upon a course of tonics.

The sight, however, gradually decreased, until she came into this city to consult me. In September (3 months ago) she first experienced great pain in the eye. It had lately become so severe that it kept her awake at night, making her at times, to use her own expression, "almost crazy." It was of a shooting character, and extended from the eye across the right side of the head and down into the neck.

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* Transactions of the Pathological Society of London, ix. 427.

† December 15, 1832, page 361.

‡ British and Foreign Medico-Chirurgical Review, April, 1863, page 463.

§ Op. cit., page 462.

‖ London Medical Gazette, April 12, 1834.

¶ Broadhurst on Deformities, 1871, page 57.

** On Club-Foot, page 210.

* On Deformities, page 69.

The paroxysms of pain were intermittent, coming on usually every other night; the patient being comparatively comfortable and free from pain during the interval. On examination I found the tension normal in both eyes, the iris in the left eye was of a light blue color and the pupil of natural size, whilst the pupil of the right eye was of unusually small size and extremely sluggish, responding almost imperceptibly to the stimulus of light; the iris was of a dusky gray color excepting at the lower part, from near the margin of the pupil, where it was of a blackish-brown color and pushed forward so as to be in contact with the cornea at its lower and outer edge. Upon dilating the pupil with a strong solution of atropine I had no difficulty in diagnosing a melano-sarcoma of the choroid, as the tumor could be seen occupying the lower third of the eye; although there was an incipient cataract of the lens. The opthalmoscopic appearance of the eye was very beautiful, as the retina could be seen detached from the choroid and stretched tightly over the tumor throughout its extent, its vessels being seen with great distinctness. The fundus and disc were apparently healthy. I advised immediate enucleation of the eye, and the operation being consented to, the patient returned to the hotel, where I placed her under ether, and, assisted by my friend Dr. Hamilton, of Richford, and her husband, I removed the eye in the ordinary manner, great care being taken to divide the nerve as far back as possible. Upon making a horizontal section through the middle of the eye, just below the optic nerve, I found the tumor to occupy its lower third and to consist of two lobes, the larger being about four-fifths of the entire size of the tumor, commencing about four lines below the disc and extending forward to the iris which it pushed into close contact with the cornea, thus obliterating the lower part of the anterior chamber of the eye. The smaller lobe was situated somewhat posteriorly and made up the remaining fifth of the tumor, being partially separated from it by a shallow groove.

The upper two-thirds of the eye were perfectly healthy, the retina and optic nerve not being implicated.

Prognosis.—Knapp relates eight cases of melano-sarcoma of the choroid in his book on intraocular tumors, four of which were cured by enucleation, the remaining four cases died of other diseases. He states that if the tumor is still confined to the eye and the optic nerve unaffected, the chances are rather in favour of a cure (by enucleation), especially if the tumor be composed of the large round or spindle-shaped cells. Holmes also relates cases of complete recovery after enucleation. I am therefore inclined to give a favourable diagnosis in this case.

The patient returned home on the fourth day after the operation, doing well. I am indebted to my friend, Dr. Wm. Osler, for the following description of the minute structure of the tumor and for the beautiful preparations under the microscope

Histological characters of the tumor.—Portions taken from the superficial region of the tumor and teased in $\frac{3}{4}$ per cent. salt solution, presented a great accumulation of cells, almost all of which were rounded, very variable in size, and characterized by the presence of large vesicular nuclei and small clear nucleoli. With regard to size, three grades could be easily distinguished:—1st, small round cells about the size of the white blood corpuscles or perhaps a little larger, with well defined nuclei, comparatively few of these contained any pigment. 2nd, cells from two to three times the size of the white blood corpuscles, much more uniformly pigmented than the former with very large nuclei and finely granular protoplasm. 3rd, very much larger elements—five or six times the size of the colorless blood corpuscles, containing two or three nuclei and not often pigmented. Compared with the others the latter forms were scarce. Gradations between these varieties were common. Here and there throughout the specimens a somewhat elongated corpuscle was met with, but no characteristic spindle-shaped elements; indeed the tumor must be regarded as a very pure specimen of round celled melano-sarcoma. The distribution of the pigment in the tumor was irregular, confined chiefly to the external portions, and extending into the interior as dark streaks, and according to the region from which the preparation was taken, the prevalent cells would be pigmented or not. Individual elements from the darker portions showed different degrees of coloration, from cells containing only a few pigment granules, up to ones so densely crowded as to obscure the nuclei.

Portions (after hardening in alcohol) taken with the sclerotic from the external region of the tumor and thin sections cut and tinted with hæmatoxylin show very well the structure of the growth and its relation to the surrounding parts.

The sclerotic was nowhere affected, nor did it appear at all atrophied over the region of the growth. In one or two sections a slight increase in the cellular elements along the course of the vessels was observed, but this condition was by no means general. Immediately within this tunic was a layer about half the thickness of the sclerotic, characterized by the presence of numerous long spindle-shaped pigment corpuscles, and others of a more irregular form. A delicate connective tissue, with innumerable blood vessels composed the matrix, so that this may be regarded as the external layer of the choroid very slightly altered. In some sections it would appear that the tumor involved the whole of the outer layer of the choroid, for the round sarcoma cells abutted directly upon the sclerotic.

By a gradual transition we pass to the region of the tumor with abundant round cells closely aggregated together and very irregularly pigmented. At the most external part the fibrous stroma of the choroid is infiltrated to such a degree with cellular elements, that in places quite an alveolar structure is given to the growth. In the deeper portions this is lost, and the cells appear crowded together without any intercellular tissue. Still further towards the centre, a well developed matrix, granular in character, is seen, surrounding each cell. In thin sections many of these cells fall out and leave the connective tissue frame-work as an open net work in which here and there a larger cell is retained. Pigmented cells occur scattered through the sections either singly or collected in small clusters. A few hæmorrhages are seen towards the centre of the growth. The portion of the retina lying upon the tumor was carefully removed, and on examination proved perfectly healthy. Along the course of some of the vessels, minute extravasations were met with and groups of pigment corpuscles were not uncommon. These latter were rather larger than the colorless blood corpuscles, and in one or two localities were observed to contain red blood corpuscles in various stages of transformation into melanin. After removal of the retina a thin dark membrane could be stripped from the surface of the growth, which was found to be the innermost layer of the choroid, consisting of regularly polygonal pigmented cells beneath which the usual stellate pigment corpuscles existed in abundance so that in no point had the tumour perforated the surface of the choroid. Sections taken from the smaller tumour at the point of junction with the healthy tissues are very interesting, showing how the growth has originated from the central and inner region of the choroid, and in its onward growth split it into two layers, one of which, the external, remains in contact with the sclerotic, while the other invests the surface of the tumour. The advancing area of the growth in these sections is represented by a wedge-shaped portion, composed of numerous round cells, and at its periphery several large vessels can be seen.

37 Beaver Hall Terrace,
Montreal, 30th Dec., 1873.

Progress of Medical Science.

LECTURE ON SOFTENING OF THE BRAIN.

By J. Hughlings Jackson, M.D., Physician to the London Hospital and to the Hospital for the Paralyzed and Epileptic.

We very frequently hear the expression "softening of the brain." It is often used by educated patients; for many people who simply suffer slight and often but temporary nervous exhaustion think, always erroneously, that they have "softening," or are going to have it. It is really an expression of pathological application, but just as the symptomatic word "apoplexy" has come to have a pathological meaning (effusion of blood), so the pathological term "softening" has come—so, at least, it appears to me—to be used, even by some medical men, as a name for a certain rude clinical grouping of symptoms in cases in which there really is no softening. This use of the term is to be deprecated. Let me mention the symptoms of cases wrongly called "cases of softening." We see patients who have become excitable, irritable in temper, and despondent; they have found that their attention easily fails, and that they cannot do their accustomed work; they usually sleep badly; they have often what they call headache, but is is mostly not an ordinary headache, either in kind or in position; it is a feeling of pressure, or sometimes of burning, and its seat is the vertex or the back of the head; there is very often, indeed, a disagreeable feeling at the occiput and in the upper parts of the spine, more distressing than pain—an intolerable physical feeling; the queer feeling in the spine is often intermittent, and frequently comes on slowly with great depression of spirits. Altogether there is a strange mixture of "mental" and "physical" symptoms. Recognizing the group of symptoms I have mentioned as a fair clinical entity deserving particularly careful study, I do not see the evidence for the diagnosis that softening of the brain is the

pathological change causing them. Such cases are called by the laity nervous debility, and often by medical men hypochondriasis. The symptoms, I think, indicate nervous exhaustion, beginning often in the sympathetic nervous system, and secondarily affecting the nutrition of the highest centres in the brain. Of course this is only hypothetical, for there is no morbid anatomy of such cases. Every one's conclusion as to their pathology must, therefore, be hypothetical. These symptoms are often produced by excesses, and especially by sexual excesses, and by "fast life" generally; they are sometimes suddenly developed by fright, and may be brought on by misery or overwork, either of the mind or the body, especially when the work is done under responsibility. Of course they occur most often in persons who inherit a weak temperament, who bear trouble badly, who are easily excited and easily depressed. In some of the cases the patients get quite well by simple common-sense cure, and the delusion that they have softening vanishes. In the graver, prolonged, and ingravescent cases, I should think there was no softening of the brain, but rather greater firmness of it; atrophy of nerve-cells and fibres, with increase of connective tissue; there is some atrophy of the brain. In saying this I am not making a very strong statement. We often see considerable atrophy of the brain at post-mortem examinations on those who have died of non-cerebral disease, and whose mental condition has attracted no attention. Atrophy of brain is normal in old people; it is often seen in middle-aged drunkards and even in comparatively young people who have been long bedridden by wasting diseases not primarily involving the nervous centres. I mention this, as you may think the statement that there is some atrophy of the brain an extravagant conclusion as to the state of things in a man whose symptoms are those of prolonged and severe hypochondriasis or nervous debility, or whatever the right name or label is.

Be sure there is no softening in these cases. Indeed, I do not see how the diagnosis that there is actual softening of the brain is in any case to be possibly arrived at, *unless the patient has certain local paralytic symptoms, as hemiplegia, or some other symptoms implying a local cerebral lesion, such as affection of speech;* or, again, unless there be signs of cerebral tumour (severe headache, urgent vomiting, and double optic neuritis), or evidence of injury to the head. For, so far as I know, cerebral softening is always local; I know nothing of general or universal softening of the brain. To be warranted in diagnosing softening, you must have symptoms which point to local disease. I do not say that local cerebral softening cannot exist without localizing symptoms. I only say that in their absence you are not warranted in diagnosing its existence. We know that large parts of the brain may be destroyed without any marked local symptoms resulting; these parts may be destroyed by the process of softening without causing marked local symptoms. But in these cases the softening is mostly about tumours or other kinds of adventitious products. It is, however, almost an abuse of language to speak of these as cases of softening. The softening is, I suppose, a result of encephalitis about the tumour. We shall not refer to these cases again. For all practical purposes they belong to a distinct category. The cases which deserve to be called cases of softening are cases in which there is blocking up of cerebral arteries, or, which is infinitely rarer, of cerebral veins. Of these only shall I speak.

It is from the distribution of arteries, it is "for arterial reasons" so to speak, that there are localizing symptoms in softening. The highest part of the motor tract (corpus striatum) and adjacent convolutions are usually the parts of the brain damaged or most damaged in softening, or simply the parts of the brain which often undergo softening. And this is because the artery which supplies these parts is an artery—the middle cerebral—which often gets blocked up, for reasons we shall afterwards state. Hence hemiplegia and affections of speech are the symptoms to be most trusted in the diagnosis of cerebral softening, for they are the symptoms producible by disease of the parts mentioned as being supplied by an artery which often gets blocked up. Curiously, however, unless there be valvular disease of the heart to, as it were, insist on softening by the process of embolism, cerebral softening is frequently not diagnosed in cases of hemiplegia and affection of speech when it often exists. Suppose that perfect hemiplegia comes on in a quarter of an hour without loss of consciousness in a patient past middle age, who has not renal disease, we are practically certain of local cerebral softening. There is in these cases softening by thrombosis—a commoner cause of local softening than embolism. Thus we see that the word "softening" is used by some for cases of nervous exhaustion and cerebral atrophy where there is not that pathological change, and, strangely, those who so use it very often do not diagnose softening in the really simple cases of hemiplegia coming on without loss of consciousness where it does exist. Sometimes, indeed, when the diagnosis is made that hemiplegia has been caused by embolism, because the patient is young and has valvular disease of the heart; there seems to be no clear notion in the mind of the diagnoser that he has before him a case of softening. There are two reasons for these mistakes. First, hemiplegia is too often attributed as a matter of course to cerebral hemorrhage, and softening is not thought of. This is, I think, because clot is oftener seen at post-mortem examinations in cases of hemiplegia, as it is a more speedily fatal lesion. We have more autopsies on patients who die from cerebral hemorrhage, because they die sooner, and therefore under our care. Nevertheless, hemiplegia *coming on without loss of consciousness*, is mostly caused by softening. I except cases of chronic renal disease, for hemiplegia in these cases, as a matter of fact, nearly always depends on effusion of blood, whether there be loss of consciousness at the onset of the paralysis or not. A second reason for the mistake in diagnosis is that there is a widespread impression that general mental

symptoms *must* exist if there be "softening." I shall devote a great part of this lecture to show that this is an error, or at any rate, it is an error to suppose that softening of the brain *necessarily* causes *general* mental symptoms *directly*. Observe, I say directly, because I shall show that softening may be preceded by general mental symptoms, and may be followed by general mental symptoms. But in neither case do these symptoms depend directly on that softening. Observe, too, that I speak of *general* mental symptoms. I admit that softening directly causes special mental symptoms—loss of speech, for example. I deny that it directly causes general mental symptoms, although I admit, as I have said, that it may be preceded and followed by them. It is practically convenient to speak first of *special* mental symptoms *directly* resulting from softening; then of general mental symptoms following it. Although out of chronological order, it is more methodical to consider the mental degradations which may precede an attack of softening after speaking further of arterial changes.

Certainly there is not necessarily any direct connection betwixt cerebral softening and *general* mental symptoms. There need be no such symptoms at the onset. The typical case is that of a middle-aged man who, having gone to bed feeling well bodily and mentally, finds out when he gets up in the morning that he cannot use his left side, but who is as clear in mind as usual; yet that man has local softening, or rather thrombosis of an atheromatous artery supplying a part of the motor tract, which will therefore speedily soften. We are obliged to make some kind of arbitrary limit. We speak of cases commonly met with. But, as I shall tell you later, there may be deep coma from blocking of the trunk of the middle cerebral artery—coma as deep as that producible by large cerebral hemorrhage. A patient may have, however, special mental symptoms, without any insensibility, at the onset of softening, and as a direct result of it. Such cases I now consider.

Special mental symptoms directly resulting from softening.—The parts of the brain which most frequently soften are, as I have just said, the highest divisions of the motor tract; most often the corpus striatum and adjacent convolutions—that is, in other words, the parts supplied by the middle cerebral artery. If a large part supplied by the right middle cerebral artery be softened, there need, after the shock of the onset, be no obvious mental symptom of any kind. If a branch of the *left* middle cerebral artery be blocked there is a mental symptom, but then it is not a general one, but an exceedingly special one—viz., affection of speech (aphasia). Affection of speech *is* a mental symptom. A person who has lost speech has lost a part of his mind. Indeed, if the *trunk* of the middle cerebral artery be blocked there is very extensive softening, and a state very like imbecility as well as loss of speech; the patient's power of expression in all ways, and even the exhibition of states of feeling by smiling, etc., may be gone. Even then the symptom is a special one—loss of language or loss of speech.*

General mental symptoms may follow local softening. We will for convenience speak separately of those following in a few days (these are usually temporary), and then of those following weeks or months after: these are often permanent. Remember the simple case we took for the purpose of illustration. A patient, about fifty, has become hemiplegic without loss of consciousness. This is the symptomatic statement; the pathological statement is that he has local cerebral softening.

General mental symptoms following a few hours or a few days after local softening.—After a short time the hemiplegic patient may begin to "wander," although at first, and usually all through his illness, he can pull himself together, clearing his mind of his fancies, and can reply to ordinary questions correctly. The mental symptoms are of a general character. There is not a loss of one faculty in particular, but a reduction of the whole mind to a more automatic condition. The patient "wanders" about his business, about the persons or places to which he is most accustomed (which are most automatic to him). He imagines that he is doing his work, and he may take strangers for those persons to whom he is most accustomed. I repeat there is not here loss of any one faculty, there is no special mental symptom. The patient is reduced to a more automatic condition of mind. There is Dissolution, using this term as the opposite of Evolution. Then, of course, much depends on the kind of brain the patient had before his illness. Old drunkards will have more absurd delusions, illusions, and hallucinations than persons who have not abused their nervous systems. My own belief is that this state results simply because the hemiplegic patient's brain power is slightly reduced in a universally lowered bodily condition, and that it is not caused by the very local disease of his brain. A local softening, practically an absence of brain (circumscribed) destruction, could not possibly cause such *active* mental symptoms as we have mentioned. These symptoms are, in my opinion, often owing to debility. Let me explain how I think *debility* produces *active* symptoms. Explanation is required, as the expression seems paradoxical, and the expression "debility" wants definition. Probably the hemiplegic patient has, for theoretical reasons, been put on a spare diet, a diet next to nothing, although the ——

* I must insist that loss of speech is a mental symptom. For we speak not only to tell other people what we think; but to tell ourselves what we think; rather a proposition is the ending of a mental operation, and often the beginning of another. The aphasic can still think in some fashion; he remains able to do so, I consider, because, although speechless, he is not wordless; he has remaining the automatic and unconscious use of words in the right undamaged cerebral hemisphere. I believe, too, that there is a similar duality of Perception, or, rather, that the process which ends in perception is double. This process is not affected in cases of aphasia. There is, I think, chiefly from disease of the right posterior lobe, a mental state which I call "Imperception," corresponding to Aphasia in the Word series. I do not discuss this symptom in the text, for, besides other and better reasons, the topics necessarily to be considered are numerous.

very local damage in his brain has not seriously affected his digestive organs—not obviously affected them at all. The palsy has alarmed and depressed him, and he has not in consequence slept, or has not slept well. Very likely he has had a strong purgative, and perhaps blisters to the back of his neck. These mental symptoms are often due in great part to want of food. Very likely the poor fellow may have every day for years eaten and drunk far too much. Some people eat little during the day, and then "stan" themselves at dinner. If such a man be taken hemiplegic just before his dinner hour he would feel the want of food in the night. We should be cautious how we begin to change a man's habits, even bad habits, very soon after an attack of hemiplegia. If we do not keep up his arterial tension the parts of his brain *the furthest from his heart* will not get plenty of blood. The parts geographically furthest from the heart are the most intellectual: he may therefore become delirious if his arterial tension be much lowered. When I have spoken more about arterial changes, you will see that the brain of a man who suffers softening is often one of which the apparatus for nutritive supply has long been getting slowly defective. He is usually past middle age. There is arterial degeneration, and thus the circulation of distant parts will fail very easily. So far, we have concluded that there is defective blood-supply, and corresponding defect of action of the highest, that is of the most intellectual nervous arrangements. But obviously this negative condition could not account for *active* mental symptoms. Before I speak of the manner in which I believe the active symptoms to result, let me widen the field of observation.

I would earnestly beg you to bear in mind that I declare that such mental symptoms are not characteristic of cerebral softening; they are just as likely to occur with hemiplegia from clot as with hemiplegia from softening; they cannot be due directly to either; they cannot, as I have said, be due to circumscribed "destroying lesion" of any kind. But we can go far beyond this statement—we can say that these symptoms are rarely dependent on *primary* disease of the brain of any kind. In general physicians' practice very active mental symptoms (delirium) are rarely even associated with primary disease of the brain of any sort. Of necessity they imply something wrong in the brain, but the brain is suffering secondarily, "functionally," as the popular and inexact expression is. Such symptoms are common in the medical wards of a hospital. The patients in whom they occur are those whose primary ailment is not a cerebral one: they occur in phthisis, in chronic Bright's disease, in pneumonia, in erysipelas, and in pyæmia—in some cases of these diseases, I mean. As a rule, the more acute the disease, and therefore the more rapidly the brain suffers secondarily, the more active, the more uproarious and constant, the mental symptoms. They occur without a very high temperature oftener than with one. The temperature is often normal. Now we come to the explanation.

Such mental symptoms are on an utterly different platform from all other kinds of nervous symptoms. Remark, they are positive, or, as I said, active symptoms. Negative mental symptoms, such as loss of speech, imbecility, defect or loss of consciousness, are often owing *directly* to disease of the brain, but the most extravagant and most changing positive mental symptoms must in all cases, even where there *is* disease of the brain, be due to the action of parts of the brain which are *not* the seat of a lesion which produces *loss* of function. They are due to the action of parts which, except for over-excitement, are healthy. I am fully convinced that in all cases, from the insanity of slightest delirium to insanity ordinarily so-called, there is, as Dr. Munro says (in accordance with a principle many years ago formulated by Laycock), a negative and a positive condition. There is loss or defect in the highest faculties along with exaltation of those lower and more automatic. It is even so in health; automatic mental action goes on during sleep or reverie. But we shall keep to actually morbid conditions. I wish to impress on you that it is the negative element only which is the *direct* result of disease. Now mark, the delirious patient is symptomatically in a double condition. The negative element is defect or loss of consciousness. Unfortunately such an expression often rouses thoughts about coma; but be sure that there are all degrees, from the slightest and most transient confusion of mind (defect of consciousness) to deepest coma. Now, the defect of consciousness is the condition produced directly by loss of arterial tension leading to failure of the highest centres—those most distant from the centre of the circulation. With regard to the causation of the positive symptoms (the delirious ravings, etc.), we may apply the principle Anstie stated when he said "that the apparent exaltation of faculties is due to removal of controlling influences," or, as Thompson Dickson said of delirium and mania, that "they result from loss of control," or as Rutherford says,* "to diminution of inhibitory power." When a man is delirious his negative state is, I repeat, that his highest nervous arrangements in the cerebrum, the sub-strata of consciousness, are more or less put out of use; he has defect of consciousness. In any general lowering of health the very highest nervous arrangements are the first to fail. (Principle of Dissolution.) The positive or active symptoms, the illusions, delusions, and grotesque actions, are owing to the action of the lower nervous arrangements, which, except for over-excitement *permitted* by the loss of control, are healthy. (Principle of Loss of Control.)

You may reply that the active mental symptoms may be attributed to active disease about the original lesion—about the softening or the clot. This is contrary to the evidence. It is a grave error in any case to put these symptoms down as a matter of course to meningitis, encephalitis, or to any kind of acute primary head affection. It is a deplorable error if it leads to severe purgation, to blistering

* The Lancet, April 29, 1871.

the back of the neck, leeches and low diet. The characteristic symptoms of encephalitis, meningitis, and acute brain disease generally are not mental, but physical. Thus, besides gross motor affections, convulsion, and paralysis, there are alterations of circulation, respiration, temperature, and constipation, vomiting, etc. Do not forget this seemingly paradoxical statement, that the trustworthy symptoms in the diagnosis of acute and primary disease of the organ of mind are physical, and that the untrustworthy symptoms for that diagnosis are mental.

General mental symptoms slowly developing weeks or months after an attack of softening.—These certainly follow at too great an interval to be erroneously attributed to the local damage which caused the hemiplegia. They often develop when the hemiplegia has become chronic. A general mental and bodily failure often follows a severe attack of hemiplegia, the result of local softening. It is not due to that softening nor to any extension of it; it is, I suppose, a result of secondary atrophy of the whole or of a large part of the hemisphere in which the local softening lies. But remark that widespread atrophy of a hemisphere follows on any large cerebral lesion, not on softening in particular; it follows clot, for example, and it may follow tumour, as is evident in some very long-standing cases. I say in some very long-standing cases, for, of course, in most cases of tumour, as we see them post mortem, from the added bulk and from œdema of the brain about the tumour, the convolutions are flattened and the brain looks bigger. Probably here there is concealed atrophy. In cases of autopsy in adults who have been hemiplegic from infancy, we may find, besides the local paralyzing lesion, extreme wasting of one cerebral hemisphere. This is, I think, a consequence of the local damage which caused the hemiplegia. There was at first, I suppose, softening by thrombosis of a branch or of the trunk of the middle cerebral artery. This local softening is afterwards represented by a cyst. The atrophy is consecutive and secondary.

The mental symptoms following late (weeks or months) after an attack of hemiplegia are more slowly developed than those following immediately, hence they are very different. The deterioration shows itself both intellectually and emotionally. There begins to be loss of power of connected thought on difficult, novel, and complex subjects, or, speaking simply, the patient is soon confused; there are also peevishness and selfishness. Both these are highly characteristic of slow mental degradation. This is just what one would expect *a priori*. From a process so uniform as atrophy of the brain you would expect failure to begin slowly, and, on the Principle of Dissolution, that it would affect first the highest and most special of all faculties, or we may say those faculties last acquired both by the race and the individual. These faculties are power of abstract reasoning (intellectual) and sentiment of justice (emotional).* That these two faculties are the most special is seen by the fact that young children and savages have little or none of either. It is said that Australian savages have not even such abstract words as tree, red, justice, etc. Now, inferior people among the civilized are inferior because these faculties are little developed in them. I repeat, these are the two faculties developed latest; they fail first in cerebral disease where the whole brain is slowly implicated. So far for the principle of Dissolution, under which comes the negative condition. Next for the positive symptoms. The process of dissolution which directly causes the negative indirectly causes, or rather permits, the positive.

Patients with general cerebral deterioration, like persons naturally inferior, are easily excited; for by saying that they have defect in their highest processes, we say that they have defect in their controlling or inhibiting processes. To be easily excited is to have little controlling or inhibitory power. Here again comes in the Principle of loss of Control. Every healthy man has all animal passions and instincts, but the properly organized man has them under control of well-developed higher faculties. Thus chastity is not the absence of sexual feeling, but the having it deep under the control of higher feelings. Here you see that the principle of the same explanation holds good as was given of the mental symptoms following soon after local softening. In the production of the class of symptoms just considered, the process of dissolution is very slow, and thus the control is slowly removed. The suddenness and rapidity with which control is removed is of vast importance; the more rapidly it is removed the more activity is there of the centres uncontrolled. Thus, in epileptic maniac (the most furious of all maniacs) the control has been removed very suddenly and with great rapidity.

Defective sense of justice seems too fine a phrase for selfishness, peevishness, and greediness; but it is really a correct statement of them. The feeling of justice is regard for others. Of course the results of disease are as different as are the persons to whose brains disease comes. For example, inferior men who have little sense of justice while in health, are made very irritable by trifles and easily take offence. They would soon, even by a non-cerebral illness, display bad temper, greediness, etc. Then some men have a feeling of justice in excess: generosity is excess of justice; generosity is not simply an easy, soft, careless nature. Such men are less likely to become selfish and greedy when the brain begins to fail. They have a reserve of good faculty. Defective power of abstract reasoning also seems too fine a phrase for the confused mental state of many of our hemiplegic patients. But it is really a correct expression; I don't mean that they have difficulty in reasoning on abstruse subjects. What puzzles them is connected thought about things out of their routine, and which are not simple and actually before them. Persons of congenitally inferior minds are easily confused by anything complex, especially if it be novel.

So, then, when general mental symptoms follow

* See Herbert Spencer's Study of Sociology, chap. xv.

weeks or months after local softening, a sufficient explanation is given, not by the softening, which may not increase in extent as the symptoms develop, but by the slow consecutive atrophy.

To resume. Excluding softening about tumours and softening from gross causes similarly obvious, I know nothing of softening of the brain except that resulting from blocking of cerebral vessels. This, you will see, is saying, in effect, that softening of the brain is local; there is a softening of some part because a vessel supplying that part is blocked up. I have used in a former part of this lecture the expression "extension of softening." I wish to remark that, excluding softening about tumours, softening from injuries, etc., I know nothing of "extension of softening" except in the very simple sense of its resulting from new blockings up of arteries near those formerly blocked up.

The softening I have to speak of is a partial necrosis of brain mostly in arterial districts. Hence the first and essential thing in the study of softening is the study of the process and results of blocking up of arteries. It is exceedingly important to realize that it *is* a question of *arteries*. See how it bears on hereditary transmission of disease. Hemiplegia from local softening occurring in a person whose family has been subject to nervous disorders is no evidence whatever to show an inheritance of nervous disease, for the simplest possible reason that hemiplegia so caused is not strictly of nervous origin. The same remark applies to hemiplegia from clot, and thus it applies to nearly all cases of hemiplegia, for this form of palsy arises in the vast majority of instances from bad cerebral arteries; they break or get blocked up. Hemiplegia is the common arterio-cerebral symptom partly because an embolus can more easily get into the middle cerebral artery for anatomical causes, and partly because this vessel lies more directly in the way of strain from the heart, and thus is the most diseased and the most easily ruptured. To show how very mechanical, so to speak, the reason is for the predominance of this arterio-cerebral symptom, I mention that Prevost and Cotard found that tobacco-seeds injected into a dog's carotid most often lodged in the animal's middle cerebral artery. In fact, I know of no evidence to prove that any form of hemiplegia is ever of direct nervous origin—*i.e.*, that the pathological changes causing it *begin in nervous tissue*. Hence it is, I think, very inaccurate to speak of a patient who suffers epilepsy as having a *tendency* to nervous diseases because his father or mother had such symptoms as hemiplegia, loss of speech, softening of the brain, etc. Your notions on hereditary transmission of nervous diseases will be confused unless you bear in mind that nearly all "nervous diseases" are really instances in which the pathological changes begin in *non-nervous tissue*. Very many of them begin in the compound tissue (artery), and many of them in the simple tissue (connective). Besides symptoms of arterial origin there are nervous symptoms from intra-cranial tumours (including syphilitic growths), abscesses, hydatid cysts, etc. All these are pathologically extra-nervous. So, in inquiring for evidence as to hereditary tendencies in a patient who had any kind of nervous affection, you try to get evidence as to general states; for what you really want most to know is to what tissue-changes the patient's family is prone. You only inquire about nervous symptoms in other members of the patient's family (paralysis, etc.,) as indirect evidence of this. You inquire, too, for rheumatism, gout, for facts as to renal disease, as well as ask if there be paralysis, insanity, etc. What you most wish to know is, what tendency there is to arterial (including cardiac) changes. My own belief is, that in this direction of inquiry we shall find out the pathology of the neuroses. I do not believe that chorea and epilepsy are nervous diseases in the sense that the pathological changes *begin in* nervous tissue.

In all the cases I have mentioned so far nervous tissue *suffers*. It is not primarily at fault. As to the neuroses, remark that according to most physicians their pathology is unknown. We cannot say, then, that they are hereditary as *nervous affections* simply because they pervade a family. Hemiplegia, apoplexy from cerebral hemorrhage, softening, etc., may pervade a family, but this is not evidence that that family is predisposed to nervous disease, for the simple reason that all the three so-called *nervous* diseases mentioned are affairs of arteries, not a whit more significant than defect of sight from retinal hemorrhage or epistaxis—arterial affairs too. In these cases it is more important to seek evidence of a tendency to arterial change than to note the occurrence of nervous disease or symptoms in the patient's blood relations.

Mental symptoms preceding cerebral softening.—It is important for another reason to bear in mind that cerebral softening is a question of arteries; for, since local softening is due to blocking up of arteries, it is hard to see how such so-called causes of softening as anxiety and overwork can be said to produce it. Such causes may help to produce the clinical grouping of symptoms, often called softening, of which I spoke at the beginning of my lecture. Fright and anxiety—which latter is only fright spread out thin—are, indeed, potent causes, especially in predisposed persons, of severe, very distressing, and long-continued nervous symptoms, such as sluggishness of mind and body, failure of power of attention, incapacity for sustained exertion, etc.; but I do not see how they can produce that *local* pathological change which is properly called softening. I do not deny that hemiplegia from softening (thrombosis) is often said by patients and their friends to have been preceded by anxiety or overwork—"caused by" such things, they will affirm. I think the most reasonable explanation is that the brain has been slowly getting into a condition in which it is easily excited and easily overworked; for in many such cases (softening from thrombosis) there is widespread degeneration of the cerebral arteries, and thus a worse nutrition throughout the brain, before the actual softening of some part results because one of these bad arteries has become blocked up. In some cases before the hemiplegia,

the patient had manifestly become, as he would say, although not in these words, incapable of connected thought on any unusual matter, forgetful of things slightly out of his routine duties, and we should learn from his friends that he had become irritable and selfish. What I told you on failure of the two highest faculties in consecutive atrophy of the brain applies here. As a rule, the failure of mental power before softening is much slighter, and occurs more slowly; it is often spoken of by the patient's friends as indifference to business, fidgetiness, and "alteration" of disposition. These symptoms are, no doubt, in persons who have degenerated arteries, the result of a uniformly bad state of the vessels of the brain. This prior condition of ill nutrition does not, so far as I know, lead to *general* softening, however slight we may suppose that softening to be.

You will now see that the causes of softening of the brain, properly considered, lead you to consider the state of the arterial system—lead you beyond the nervous elements of the nervous system. I repeat that very few nervous diseases are directly of nervous origin. A great part of our knowledge of the pathology of cerebral softening is in the answer to the question, Why do arteries become diseased, and thus "blockable"? Obviously if the softening of the brain be very limited in extent, and the symptoms therefore slight and transitory, the consideration of the patient's general bodily state is the really urgent matter. It would be a very poor thing to dwell with exaggeration on the hemiplegia, and ignore the state of the patient's heart, arteries, etc. It would be a very unclinical mind which could feel comfortable about a patient who was very "degenerate" simply because he had speedily got rid of hemiplegia. Inquire into degenerations of all systems of tissues, and examine all important organs. Nor must you suppose that you are taking a broad view of a case if you dwell exclusively on important superficial matters—state of digestion, sleep, and occupation. You will have your patient's sympathies in making such investigation, for he can, or he supposes he can, follow your enquiries and understand their bearing. It is best to begin with the paralytic symptoms; then to consider the superficial, but very important, conditions; and, lastly, the deeper lying and most important evidence as to general pathological and pathogenetical states. The patient will wonder what you are at if, first of all, you examine his heart, urine, and arteries, when he comes to you because he cannot use his right arm and leg. Again, do not be illogical when paralytic symptoms are slight and transitory. Suddenly occurring and transitory slight symptoms, such as affections of speech, unilateral numbness, may be owing to little foci of softening (or rather to thrombosis of small arteries, which in due time lead to local softening), just as much as permanent paralysis may be owing to extensive softening. Of course the slighter the symptoms the more need is there practically to consider many possibilities, for slight symptoms are not necessarily so easy of explanation as grave symptoms often are. After carefully considering all the causes I can think of, I feel warranted in attributing in many cases the slight and transitory nervous symptoms I have mentioned to local softening; for vessels of very small size may be blocked up as well as vessels of great size, and in correspondence there are foci of softening from the size of a pea upwards. Simple as this remark sounds, the principle deducible from it is not always borne in mind. Slight and transitory hemiplegia, which we are warranted in putting down to blocking up of very small arteries, is often hastily ascribed to general states of ill-health—for example, to affection of the liver, etc. In so explaining them you would have your patient's sympathies. He can, or he thinks he can, frame some sort of conception of "local congestion," "disorder of the liver," "surpressed gout," "overwork," "anxiety," etc., as causing his slight localized nervous symptoms. At any rate these explanations or these phrases are familiar to him. I think that the existence of any of these states gives no explanation of local and suddenly occurring nervous symptoms. These "explanations" are superficial, not simple. If a man have atheromatous arteries (blockable arteries) of all sizes, why should not slight and transitory symptoms be owing to blocking up of very small arteries? Observe, the question of first importance in diagnosis is not as to the slightness or transitoriness of a symptom, but as to its localness; a local symptom must imply a local lesion of some sort. One reason for the frequent denial that local lesions exist in cases of *transitory* paralysis is that it is not widely known that there is Compensation in nervous organs, so that paralysis will pass off when the damage causing it is not altogether repaired. Thus we exclude such so-called general causes as I have mentioned, and go on to consider special causes. At the same time it is only an inference that such light and transitory paralytic symptoms depend on small foci of softening, for there is no, or practically no, morbid anatomy of such slight symptoms.—*Lancet*, Sept. 4, 1875.

RETAINED PLACENTA.

In reference to some cases of retained placenta that had been treated by forcible removal, which he regards as a dangerous practice, Dr. Linéard, of Caen, calls attention to the fact that many years ago he published a simple procedure, which he has always found as effectual as it is safe and easy, and which is also a very efficacious means for the prevention of after-pains and uterine hemorrhage. It consists in the injection of the umbilical vein with cold-water. A clean section should first be made, so as to bring the vessel plainly into view, and also to shorten the cord, which should not be more than from twenty to thirty centimetres is length. A syringe, containing at least 150 grammes, and having a long fixed canula should be employed. The colder the water used, the less is the quantity that need be injected so that while 150 grammes suffice at the ordinary temperature of winter, twice or thrice as much may be required in summer.—*Gaz. des Hôp.*, February 25.

A NEW METAL.

THE discovery of a new element is an event in the history of chemistry that must not be allowed to pass unchronicled. It is some fifteen years since there was an opportunity of making such an announcement, for new elements are much rarer nowadays than new planets, half a dozen of which are often picked up by astronomers in a single year.

This latest addition to the list of elementary substances is to be credited to M. Lecoq, an amateur chemist of Bois-Baudran, Cognac, and has been named by him *gallium*, "in honor of France," the ancient Gallia. In a note presented to the Academy of Science, September 20, he reports that he first found indications of the existence of the new body "between three and four P. M. on the 27th of August, 1875." It has not yet been isolated, and its physical characteristics therefore remain unknown but from the chemical behavior of its compounds it appears to be a metal related to zinc and cadmium, in connection with which it was found in a blende from Pietrafita, Spain. The forms under which it is at present known are those of the chloride and sulphide. While experimenting with the spectroscope on the products of the analysis of the blende last mentioned, M. Lecoq observed a violet line in the spectrum which evidently did not belong to any known element. This line was situated at about 17 on the scale of wave-lengths; and there was also a fainter violet line at 404. Further examination fully satisfied him that these violet rays were indeed the luminous language by which a hitherto undiscoved metal announced itself. Probably it will soon be made to show itself in its simple metallic form, and we shall then know how it looks. Its chemical affinities, as already stated, connect it with zinc.

This is the fifth metal discovered by means of the spectroscope, the others being cæsium, rubidium, thallium, and indium, which were found in 1860 and 1861. But for this wonderfully delicate instrument of analysis, they all would probably have remained unknown, at least in our day and generation. Cæsium and rubidium were found by Bunsen and Kirchhoff while analyzing a spring water which contained only two or three grains of the metals to a ton, and by no other method of analysis could their presence in quantities so minute have been detected. Thallium, which was discovered by Crookes, betrays itself in the spectroscope by its characteristic green line if one fifty-millionth part of a grain is volatilized in a flame, an amount far too small to be recognized by any other method known to us.

These metals, with the exception of the new gallium, are all named from the colors of their distinctive spectroscopic lines: cæsium from the Latin *cæsius*, sky blue; rubidium from *rubidus*, dark red; thallium from the Greek θαλλός (*thallos*), a young green shoot; and indium (which was discovered by Reich in a specimen of blende from the Freiberg mines) from *indigo*.

Gallium is not the first element discovered in France, though it is the first for nearly half a century. Bromine was detected by Balard in 1826, and iodine by Courtois, a Paris soap-boiler, in 1811. The credit of discovering magnesium is sometimes ascribed to Bussy, who in 1829 or 1830 first obtained it in sufficient quantities to test its properties; but Davy as early as 1808 had satisfied himself that magnesia was the compound of a metal with oxygen. Vauquelin discovered chromium and glucinum (the oxide, at least, for the metal was first isolated in 1828 by Wöhler) in 1797.—*Boston Journal of Chemistry, November*, 1875.

TREATMENT OF SCARLATINAL ALBUMINURIA.

Dr. Vesey, in the *Irish Hospital Gazette*, gives a case treated by turpentine and vinegar, from which is the following extract:—

The anasarca was very much increased all over the body. The urine had been almost totally suppressed. During the previous thirty-six hours not more than ʒ iv. (if so much) had been passed. This was of the color of tawny port wine. The immediate treatment was a hot bath, with mustard followed by hot stupes to loins, a brisk purgative, and a turpentine enema. Turpentine confection was also administered in fifteen grain doses every hour, and vinegar and water (1 to 4) was given *ad lib.* as a drink. The bowels acted freely, and in three hours from the commencement of the treatment there was an improvement; the convulsions were not so severe nor so frequent. Chloroform was also tried, but I did not derive the benefit therefrom that I expected, so did not persevere in its use.

In twelve hours the convulsions ceased, and did not return. The turpentine confection was now given every third hour, and did not produce any strangury. The quantity of water was notably increased—six ounces in twelve hours. He drank freely of the vinegar and water, and was much pleased with it. He had very copious sweating, which continued for several hours.

Dec. 23rd.—To-day patient much better; pale and weak, but otherwise well; plenty of urine secreted, only a trace of albumen; *no blood or casts* could be found. From this date the convalescence was uninterrupted and complete.

I need not enlarge on the condition of the kidneys in this case. It will be sufficient to say that it was regarded as a case of masked scarlatina in the first instance, with the usual renal sequelæ, from exposure to cold. This view is borne out by the appearance of scarlatina in a sister of this boy a few days afterwards.

The reasons for the employment of turpentine are too obvious to be commented on. The vinegar was given with the idea of making the urea-poisoned blood purge itself of the offending matter through the skin. I do not venture to say that the diaphoresis was *propter hoc*, though certainly it was *post hoc*.

In the current number of *St. Bartholomew's Hospital Reports* will be found a very valuable paper by Dr. Reginald Southey, who prescribed sulphurous acid and compound spirit of horse-radish in acute Bright's disease. Of vinegar he says, "I do attribute her improvement very greatly to the large amount of *vinegar* in horse-radish sauce that this

patient took; and oftentimes since, in the persistent sickness of the uræmic state, I have given the dilute acetic acid of the Pharmacopœia, in drachm or half drachm doses, with almost invariable benefit.

MOUNT SINAI HOSPITAL: HYPODERMIC INJECTIONS: CORROSIVE SUBLIMATE IN SYPHILIS.

In this hospital hypodermic injections of corrosive sublimate in the treatment of syphilis have been made continuously, and so far without the formation of an abscess. They are specially found of advantage where the stomach is in an irritable state. The solution is made as follows:

Hydrarg. bichlorid., gr. iij,
Morphia mur., gr. ij,
Aquæ, ℥ j. M.

Of this one-half drachm is used as an injection once a day for fourteen days.—*New York Medical Journ.*

THE CANADA MEDICAL RECORD

A Monthly Journal of Medicine and Surgery.

EDITOR:

FRANCIS W. CAMPBELL, M.A., M.D. L.R.C.P., LOND.

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MONTREAL, JANUARY, 1876.

MEDICAL BILLS.

It is an old adage that it never rains but it pours, and this would seem to be the case with Medical Bills just now. In our last issue we gave in full a copy of a Bill which had been presented to the College of Physicians and Surgeons of Lower Canada, by a portion of a committee, which, in July 1874, had been appointed by the members of the College, with a view of suggesting some amendments to the present Act. It was attempted to so arrange matters that the Bill would have been brought before the session of the Quebec Parliament which has just closed. The unfairness of such hurried legislation was so obvious, however, that we are glad to say it did not require much pressure to induce the supporters of the measure to allow it to stand over for discussion till the meeting of the College, which takes place in Montreal in May next. The profession, however, had hardly quieted down after the little spurt of activity, which was required to secure this breathing-spell, when they were somewhat puzzled, on reading the proceedings of the Quebec Legislature, to see that the Hon. Mr. Chapleau had introduced "an Act concerning the Medical Profession of the Province of Quebec." It was hardly possible to believe that, after the understanding which had been come to, an attempt was about to be made to press through at once the Bill we have referred to, and yet one could hardly be blamed for taking this view. Investigation, however, into the matter revealed the fact that this was an entirely new Bill, its promoters being a small section of the profession in Montreal, who, tired of what they term the slow movements of the College of Physicians and Surgeons of Lower Canada in the way of improvement, determined to secure a Bill of their own, which had this delicious freshness—we do not say audacity—about it that it wiped out of existence the present College, which, whatever be its faults—some believe it has many—has done much for the profession of this Province, and transferred not only all its privileges—*but all its property*—to the very cumbersome corporation which was, Phœnix-like, to arise from its ashes, as the creation of the half dozen ultra-reform members of the profession in Montreal. We always desire in discussing public questions to do so with calmness, but we confess that we can hardly allude to this bantling of the Hon. Mr. Chapleau, and the action of those who committed it to his charge, and preserve our equanimity. A more audacious attempt to tyrannize by means of legislation it would be difficult to conceive; and we confess our astonishment (if indeed it is possible to be astonished at any legislation which takes place in the Province of Quebec) that the Bill was allowed to reach its second reading before being strangled — as it should have been at its birth. It, however, did not go further than this, being we understand, gently dropped. Our contemporary, the *Canada Medical and Surgical Journal*, published the Bill in full; but, as it would occupy some four or five of our pages, we think we can fill our space better than occupying it with a Bill which, in our opinion, will never become law,—most certainly it never will, if the College of Physicians and Surgeons have the energy to act, and the tact to deal with the Medico-Political situation as it at present stands. We do not feel that, as regards the measure itself, we are called upon to express any very definite opinion. In general terms we may, however, say it is by far too complex, requiring to be read at least half-a-dozen times by a man of ordinary intelligence, before it can be understood, and that many of its details are of such a character as to be utterly impossible of accomplishment. We do, however, need a change in the present Act; and those who feel that such is the case, and we know they are many, should at once, if qualified

to do so, enrol themselves as members of the present College, and through it agitate for the needed reforms. If it should so happen, however, that the College does not shew itself equal to the occasion, it will then be time enough to engage in legislation which is intended to legalize its annihilation, and surround with a halo of parliamentary purity,—those who, being foremost in the fray, will be best entitled to participate in the spoils. Till then we say to our enthusiastic medical dreamers,—"*bide a wee.*"

WHAT IS WHICH?

It is said that the Medical Bill, which was introduced into the Quebec Legislature by the Hon. Mr. Chapleau, and to which we allude elsewhere, was drawn up by a well-known Montreal Lawyer.

We are inclined to believe that such is the case, but, like many legal documents, to plain intellects it is difficult to understand. Perhaps, however, it would require more intellect than is possessed by even eminent lawyers to tell the *true* meaning of the following section.

SECTION COUNCILS AND THEIR OFFICERS.

"The Election of the Section Council shall be made by ballot, the first *Wednesday* of July every year, unless this day be *Sunday*, &c., &c."

How is it possible for any *Wednesday* ever to be a *Sunday?*

HYGIENE AND STATISTICS.

Our Quebec Legislature has many faults, but when credit is due them, it is not only fair but wise to concede it. We are glad, therefore, to state that at the last Session, just closed, it was determined to establish a system of Hygiene and Statistics, also two Bureaus, one at Montreal and another at Quebec, for the collection and distribution of vaccine lymph. We fear, however, that in, the matter of Statistics, the results will not be satisfactory, simply because it is unwise in our opinion to have religious officers perform what *is* a civil duty. Still we are thankful for this much, and live in hope that some day our opinion may prevail.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

MONTREAL, Nov. 19th, 1875.

The regular meeting of the Medico-Chirurgical Society of Montreal was held this evening, and the following gentlemen were present :—Dr. F. W. Campbell in the chair ; Drs. Drake, Fenwick, H, Howard, Ross, Alloway, Major, Simpson, Ashe Roddick, Saunders, Reddy, Finnie and Bell.

The minutes of the last meeting, held on the 5th of November, were read and approved.

Dr W. H. Burland, of the Montreal General Hospital, was proposed for membership by Dr. Roddick, and the proposition was seconded by Dr. Ross.

Dr. Roddick then proceeded to read a paper on a case of "Pedunculated Fibroid Tumour of the Uterus." The subject of the abnormal growth was a woman 29 years of age, who had been married seven years, and during that time had no children, nor miscarriages. At the time Dr. Roddick saw her she thought she was pregnant, as she had not menstruated for three months. Her general health had been good. At the commencement of her illness, which was on the 15th of July, 1875, she suffered from severe pains in the right inguinal region, that were sudden in their onset. The patient objected to a vaginal examination, but externally a hump the size of a hen's egg could be felt in the right inguinal region, and the uterus was enlarged, but not so much so as it usually is at the fourth month of pregnancy. It occurred to Dr. Roddick that he had a case of extra-uterine, or tubal pregnancy, to treat. A vaginal examination showed that the tumour moved with the uterus. The three days following the patient became very much worse, with great pain and prostration ; and Drs. Drake and Howard were in consultation with Dr. Roddick. The title of the paper was the diagnosis finally adhered to. Leeches, poultices, morphia and champagne did not relieve the pain, vomiting and prostration, and the patient died five days from the commencement of the attack. An autopsy revealed a smooth, fibroid, pedunculated tumour, springing from the anterior cornu of the uterus, with the surrounding peritoneum very much congested, inflamed, and in some parts almost gangrenous.

Dr. Roddick, after entering into the peculiarities in the physiology and pathology of the case, expressed the opinion that the peritonitis was set up by the traction and rupture of adhesions, caused by the enlargement of the uterus ; and suggested for discussion the question in treatment : "would the induction of premature labour be justifiable in cases of this kind ?"

The paper was listened to with great interest, and a warm discussion followed as to the cause of the symptoms and lesions which presented themselves in this case. Dr. Roddick's proposition as to the justifi-

ability of the induction of premature labour in similar cases was supported by several speakers, and several cases were cited in which the treatment had been successful.

Dr. REDDY introduced the subject of the proposed Amendments to the Medical Act of the Province of Lower Canada. After some discussion of the subject,

Dr. REDDY, seconded by Dr. ROSS, proposed that a special meeting be called to discuss the matter.

In a requisition signed by Drs. Ross, Reddy and Fenwick, Dr. Campbell(F. W.) the chairman and 1st Vice-President, called a meeting for Monday, the 22nd of November, and the Secretary was instructed to issue circulars to the members, calling them together on that day. to consider the "Proposed Amendments to the Medical Act."*

JOHN BELL, A.M., M.D.,

Secretary-Treasurer.

TO OUR SUBSCRIBERS.

We earnestly ask our Subscribers to remit the amount they may be due us.

A GROUNDLESS CHARGE.

A villainous attempt to injure the reputation of a worthy and most honorable medical man, Dr. Le Cavallier, of St. Laurent, was made the early part of December, by a woman named Paquin, who accused him of rape. The Doctor was arrested and brought before the Police Magistrate at Montreal, but the moment an investigation was begun, the maliciousness and utter groundlessness of the charge became apparent. We never had any doubt of the issue, from our knowledge of Dr. Le Cavallier, but now that he has been most honorably acquitted, we congratulate him that his character has been so completely vindicated.

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*This meeting was held, and largely attended. A resolution, condemning any attempt at hasty legislation, and the necessity of submitting to the profession any alterations which might be proposed in the present Act, was passed: As the Society finally came to the conclusion that the contemplated meeting of the College of Physicians and Surgeons of Lower Canada, which had been called for the 24th of November, was illegal, and that the consideration of the proposed Bill would not be entered upon, they determined to simply place it upon record, to be used subsequently if occasion should demand it.—EDITOR RECORD.

AN EXPLANATION.

In our December number we made a few remarks upon the proposed New Medical Bill, which, in May last, was submitted to the College of Physicians and Surgeons of Lower Canada, as the report of a Committee which had been appointed at the previous Tri-annual meeting of the College to suggest amendments to the present Act. We mentioned the names of the Committee, viz., Drs. G. W. Campbell, Jackson, Rottot, and Craik, and said that Dr. G. W. Campbell declined to act upon it as he was retiring from active professional life, *and that Dr. Craik did not act.* It would, of course, be inferred from the latter clause of the previous paragraph that Dr. Craik had also declined to act, indeed such was our impression. In this, however, we are in error; Dr. Craik did not act simply because he never knew he was on any such Committee. He was never notified of his appointment. Had he been informed of the fact, we are assured Dr. Craik would have accepted the duty imposed upon him by the members of the College. We regret exceedingly being the means of conveying a wrong impression.

PERSONAL.

Dr. George W. Campbell, Dean of the Medical Faculty of McGill College, Montreal, sailed from Portland on the 18th of December in the Allan S.S. Sarmatian. We believe he intends being absent from Canada for a considerable time.

Dr. Clarke, of Princeton, Ont., has been appointed Medical Director of the Toronto Lunatic Asylum Although Dr. Clarke has not specially devoted his energies in the direction of mental diseases, he is yet considered to be equal to the position. We hope so.

Dr. Robert Miller, son of Judge Miller, of Galt, has been appointed Surgeon to a detachment of the North-West Mounted Police. He will be stationed at Belle River.

MARRIED.

At Fort Edward, N. Y., on the 23rd December, by the Rev. F. M. Cookson, Dr. M' Jones, of Sherbrooke, Que., to Florence Marion, only daughter of John Osgood, Esq.

DIED.

At Cowansville, Que., on the 16th December, J. P. Cowan, M.D., for many years a resident of Greenock, Scotland, and then of Montreal, aged 70 years.

Dr. Octavius Yates, of Kingston, died very suddenly from congestion of the lungs, in the early part of November last. He was much respected by his colleagues, and his death is severely lamented.

Dr. Ormond Skinner died at Waterdown, Ont., on the 25th November, aged 45 years.

Original Communications.

Cases communicated by Dr. CARR H. ROBERTS, L.R.C.P.L., M.R.C.S.E., L.S.A., *Medical Officer of Health, and Surgeon to* Alderbury Union House, Salisbury, Wiltshire, England.

Mrs. S., ætat. 55, spare, thin, cadaverous-looking, general appearance suggestive of malignant disease, states her health to have been always good, but always weak, delicate, and with a very poor appetite. Catamenia, which ceased five years ago, always were regular, but scanty, of a pale color, but accompanied with a more or less (generally a considerable) amount of pain. Never had any children nor any miscarriage. Family history not good. Father, mother and one sister all said to have died of cancer; and since the present subject came under my notice another sister has died of (presumably) cancer of æsophagus after several months illness and semi-starvation. About two years previous to July, 1875, a large lump was perceived on the upper surface of the foot, in front of the ancle-joint over the larger metatarsal bones. This remained stationary until about the middle of June, when it became red, swollen, inflamed and very painful. Various domestic remedies were applied, of course with no relief, except that with which "fancy painted it." About the end of June the advice of Dr. Gordon was sought. When seen then the whole foot was very much swollen, very red and intensely painful, especially when held in a dependent position. Rest, linseed poultices, quinine, iron and a generous diet were prescribed. At the end of a few days, pointing was observed. Matter presented itself; was allowed to discharge, *per se*, and the patient having been placed under chloroform, the administration of which she bore very well, the wound was carefully examined with a probe, and unmistakeable evidences of diseased bone were found. The patient being very desirous of something being done for her relief, without, if possible, losing her foot, it was determined, after a consultation with Dr. Blackmore, that although it was quite impossible to say how far the disease extended, yet in deference to the urgent wishes of the patient, but contrary to our advice and judgment, excision should be attempted. Accordingly, on the 4th July, the patient being again placed under chloroform, the administration of which Dr. Blackmore kindly undertook, an incision was made by Dr. Gordon in the usual manner, and a good flap having been obtained, the first and second metatarsal and the cuboid and scaphoid were removed. Part of the os calcis and the astragalus was carefully gouged out. The cavity was plugged with lint, saturated with carbolized oil, an opening left, the parts nicely brought into apposition with several sutures and some strips of plaster, and the leg was placed on a splint. The operation occupied about twenty minutes; the patient lost very little blood, and when seen a few hours later expressed herself as being, and looked, comfortable. There was a considerable amount of suppuration for a few days, of good, sound, healthy matter, and the wound appeared to be granulating nicely. The patient seemed to be doing well, and had a very tolerable appetite: her diet being composed of eggs, milk, fish and beef-tea, &c., at the commencement, with small doses of brandy and wine. Later on mutton chops, rump-steak and stout were prescribed, and great hopes were entertained that our bit of conservative surgery would turn out successful, with a very useful, if not ornamental remainder of a foot for our patient. But alas! a "change came o'er the spirit of the dream." In the first week in August several places broke out round the ancle-joint, discharging matter of a thin, bloody, sanious character. A large sinus formed, extending up to just below the middle third of the leg, the whole of which assumed an aspect of an extremely erysipelatous character, and the patient's appearance was highly suggestive of pyæmia. The whole leg was enveloped in linseed poultices. She was given a good calomel and colocynth purge, and, after large doses of quinine and liq. ferri perchlor., four times a day, gr. ij. full doses of opium at night. Her diet was of the most liberal description, brandy and wine, especially champagne, and whenever it was possible, instead of plain water, a saturated solution of chlorate of potash was ordered to be used. By these remedies the alarming symptoms were gradually subdued, and the patient's health restored to such an extent as to justify our resorting, on the 15th August, to amputation about six inches below the knee. The patient did not bear the chloroform quite so well as on the previous occasions, but she lost very little blood, a tourniquet being applied, and each vessel, as soon as divided, being taken up and secured. The operation was quite successful, and a good stump resulted. With the assistance of a pair of crutches the patient is able to move about freely and well, and we hope in a short time to be able to supply her with an artificial limb. An examination of the amputated limb disclosed extensive disease of

the remainder of the os calcis and astralagus, as well as of the lower part of the tibia and fibula. This had evidently made rapid progress since the first operation was performed. No doubt it would have been better to have resorted to amputation in the first instance; but, as I said at the commencement, we paid more deference to the wishes of the patient than we did to our own judgment.

8th January, 1876.

M——P——, a shoemaker, aged 46 years, first came to me on the 11th of October, complaining of pains in the bowels, more particularly in the left iliac region, and sickness. The bowels had been acting irregularly for some time, and had not been moved for two or three days. He had the appearance of a person used to hard, irregular living, and he attributed the constipation to his having been a teetotaller for three weeks. His aspect was pale, haggard and anxious, pulse and temperature low. I gave rhubarb mixture, with chlorodyne and aperient pills, and did not hear of him again until the 14th, when I was sent for to see him. His bowels had not been relieved, the sickness continued, and the pain was more severe, but with intervals of ease. The abdomen was swollen and tympanitic. There was no perceptible swelling or hardness at any one point to indicate the seat of obstruction. I then gave him cal. and opium every 4 hours, which relieved the pain. The sickness yielded to hydrocyanic acid. On the 16th the bowels had not acted. On that day I gave him two injections, without any effect, save bringing away two lumps of hardened fæces, about the size of walnuts. I at the same time examined the rectum, but could not find anything there. On the following day I repeated the injection, this time using a powerful instrument and a long tube, introduced about 18 inches.. This was followed by a free evacuation, with great relief to the patient, and encouraging the hope that the obstruction had been overcome. But it appeared afterwards that it was only the colon that had been emptied. On the following morning (17th) he felt better, but in the evening the old symptoms returned, considerably intensified, and the next day he had frequent attacks of stercoraceous vomiting, severe pain in the epigastrium; everything he took seemed to stop there. The tympanites increased, and the pulse got very low. After repeated injections of warm water, without benefit, I gave him a mixture containing liquid extract of belladonna, opium and hydrocyanic acid every two hours. This speedily stopped the vomiting and pains, and the next morning I had the satisfaction of finding him much better, and free from pain; still the bowels continued obstructed, We continued the opiate treatment, with warm fomentations and turpentine stupes during the next three days, when I repeated the injection with the addition of Tinct. Assofœtida ℥ ii. This produced no effect at the time, but during the night the bowels were freely relieved. On the following day the bowels acted rather loose, and during the next fortnight he seemed to be doing well, getting to take food, the bowels acting at intervals of two or three days. He took aperient medicines from time to time, without any apparent effect, good or bad, and opium freely. On the 14th November he began to fall back again, had occasional attacks of pain and sickness, but not so severely as before, and always yielding to belladonna and opium. The bowels continued swollen and tympanitic. From that time to the 25th he was able to get about; took a fair amount of nourishment. He was very averse to the injections, and always begged off, saying he felt the bowels were likely to act without. On the 25th of November he had an injection, containing ℥ i. turpentine. This was followed by a copious evacuation of a healthy character, as indeed has been the characteristic of the evacuations throughout. From that time until the 30th the bowels did not act. On that day I repeated the turpentine enema, which only brought away several lumps of hardened fæces.

The patient now looks better in the face than when he first came under my notice. The abdomen is distended and tympanitic, but soft and yielding to the touch. The feet and ancles swell slightly. Urine scanty and dark-colored; no albumen. The pulse continues as it has done the most of the time, slow, soft and compressible. His temperature has been throughout rather under the average.

The case at first certainly had the character of intussusception, but the subsequent course of it rather points to some obscure organic obstruction. The chief points of interest appear to be the very obstinate constipation, and the absence of the severe symptoms that might be expected under the circumstances. So little does it disturb him that he requently proposes going to work.

The patient died early in December from exhaustion, being reduced almost to a skeleton, the abdomen being enormously distended. Unfortunately no post-mortem examination was allowed to be made.

8th January, 1876.

John Fletcher. Was sent for to see him on the morning of the 19th ult. Had a scotal hernia incarcerated. Had attended him for the same thing over two years ago. I reduced that, but the next day he still complained of pain and sickness. I prescribed an aperient, which his stomach did not retain.

21st. Sickness still continued. 22nd.—Sickly. 23rd.—Sickness and pain still. Administered injection, with no effect. 24th.—Vomiting increasing No swelling of abdomen, nor pain, except that caused by retching. 26th.—Admitted to Infirmary.

Progress of Medical Science.

THERAPEUTICAL NOTES.

PRURITUS.

For the intolerable pruritus common in fall and winter, many physicians use Dr. L. Duncan Bulkley's prescriptions, given in the *Transactions* of the American Medical Association. We repeat them here:—

Unguentum Anti-pruriticum.

R.	Pulv. gum camphor.		
	Chloral hydrat.	ää ʒ j	

Grind well together in a mortar, till they form a fluid, and add slowly, simple cerate, one ounce.

Liquor Picis Alkalinus.

R.	Potass. causticæ.	ʒ j	
	Picis liquidæ	ʒ ij	
	Aquæ	ʒ v.	M.

Dissolve the caustic potass in the water, and add gradually the tar, mixing them well in a mortar. Use in solution with from 8 to 14 parts of water.

PERUVIAN BARK IN SORE THROAT.

Dr. Holden recommends the following formula, as exceedingly efficacious in diptheritic scarlatina and other forms of sore throat:—

R.	Corticis peruvianæ flav.,	ʒ ij	
	Acaciæ pulv.	ʒ j	
	Sacch. alb.,	ʒ ss.	M.

S. Mix one half of this powder in a tablespoonful of cream, and apply frequently with a camel's hair-brush.

SCIATICA.

Dr. Peter, of Paris, recommends bandages saturated in chloroform. They should be bound firmly over the affected part.

ON THE TREATMENT OF BRIGHT'S DISEASE OF THE KIDNEY.

By James Tyson, M.D., Prof. of Pathological Anatomy and Histology in the University of Pennsylvania.

Read before the Philadelphia County Medical Society, March 10, 1875.

Although the line of demarcation in the treatment of the different forms of Bright's disease is by no means so sharp as that which modern histology has made in their pathology, it will, nevertheless, facilitate our consideration of the subject, as well as perhaps tend to place treatment on a more rational basis, if I preface a brief recapitulation of the different forms alluded to:

1. In the first place, we have the division into *acute* and *chronic* Bright's disease. The former presents us with a single form, that of *acute nephritis*, the acute tubal nephritis, acute catarrhal and acute desquamative nephritis, of certain authors,— which has its most frequent occurence as a sequel of scarlet fever, and therefore in children; while it also occurs less commonly in adults after exposure, especially while perspiring, to cold and moisture. It is indicated by the presence of dropsy, bloody, highly albuminous urine, containing blood-casts and epithelial casts, also sometimes hyaline fibrinous casts.

2. Secondly, we have chronic Bright's disease, which gives us four subdivisions. The first of these is the *large white kidney*, also called chronic catarrhal nephritis, and chronic tubal nephritis, because it involves more particularly the cells lining the uriniferous tubules, and is generally found in continuation of the acute nephritis. The condition, while one of increased nutrition, a true hypertrophy in its earlier stages, and a fatty degeneration in its later contracting stage, cannot be considered an inflammatory one; and therefore I prefer the term *large white kidney* to any involving the idea of inflammation.

In this form of disease we have also dropsy, considerable albumen, at first small hyaline casts, containing an occasional oil-globule or fragment of epithelium, later more copious urine and more numerous small hyaline, and oily casts, and finally large hyaline, granular, and oil casts, indicating destruction of the gland, the rate of which may be estimated by the quantity of this kind of deposit.

Next we have the *cirrhotic* or chronically contracted kidney, also called the gouty kidney, and by the German pathologists the kidney of interstitial nephritis, in contradistinction to the catarrhal nephritis, because the interstitial connective tissue is believed to be the seat of the inflammation. Here again I do not think the phenomena are those of a true inflammation, but rather of a nutritive activity in the normally scanty connective-tissue elements between the tubules, to the resulting fibrillar element of which is also contributed a portion derived from the atrophy of the tubules themselves. A hypertrophy of the muscular coats of the arterioles of the kidney, and perhaps, also, as claimed by Johnson, of the entire arterial system, is also an essential feature.

For the above reasons I prefer, also, to speak of this kidney as cirrhotic or contracted, its small size and hardness being more conspicuous than inflammatory phenomena. In this form there is little or no dropsy, there is an increased amount of urine with a minute amount of albumen, sometimes perhaps, not a trace of it; also granular and hyaline casts.

Third is the *albuminoid* kidney, also called the baceny (*speckige*), waxy, or amyloid kidney, the latter term having been applied by Virchow in consequence of an erroneous conception of the nature of the infiltrating substance, he having supposed it to be allied to the starches.

The essence of the disease consists in an infiltration, first of the walls of the blood-vessels, and finally of the tubules and cells themselves, with this peculiar substance, of which the exact composition is still unknown, but which is certainly albuminoid and not starchy in composition. The effect of the infiltration is to give a peculiar glistening translucency to the parts affected, and to impart to them the property of striking a bright mahogany-red color with a solution of iodine.

The disease is commonly found attending an exhausting drain upon the system, whether from local or constitutional disease, and it is highly probable that one of these causes is the extreme albuminuria which attends the large white kidney, so that we find the latter organ often the seat of a secondary albuminoid disease of the capillary blood-vessels. Except under these latter circumstances, albuminoid disease of the kidney is generally accompanied by similar disease of the liver and spleen, which are also enlarged, and by this condition aid in the diagnosis. In this affection the amount of urine is large and correspondingly pale; the amount of albumen, at first small, gradually increases; casts are often absent, and when present are not numerous, and they are usually small, hyaline, and granular, and occasionally oily. Later, we have the same large-sized hyaline and granular casts described as occuring in the large white kidney; and from the latter form of disease it is often impossible to distinguish the waxy kidney before death. Sometimes the casts in albuminoid disease exhibit the waxy lustre of the albuminoid infiltration, and strike also the red mahogany-color with iodine.* But this is by no means invariable, or we would have a means of easy diagnosis.

Finally, there undoubtedly sometimes occurs a pure and simple fatty degeneration of the cells of the kidney, often associated with general fatty infiltration of all the tissues, and especially of the liver and heart, in very fat persons, consumers of alcohol or the subjects of wasting diseases liks cancer and phthisis.

TREATMENT.

It is to be regretted that the advance in the therapeutics of Bright's disease has not been as great as in its pathology; and yet, that treatment is often of the greatest utility, not only in alleviating the suffering and prolonging the life of the patient, but also in promoting recovery, is attested by numerous instances. As already stated, the treatment of the different forms of the disease is by no means so distinctive as their pathology, and, for practical purposes, a division of the treatment into that for the acute and that for the chronic is sufficient, provided that attention be also called to any special modification of treatment required by special conditions.

Treatment of acute Bright's disease.—First as to the treatment of the acute form. There is no doubt that many cases recover while the conditions of rest, quietude, and warmth are maintained. And it is further certain that, whatever other means of treatment are used, these three conditions are absolutely necessary to recovery. A patient with acute Bright's disease, therefore, whatever its mode of origin, should be put to bed, kept quiet, and warmly covered. I should seldom, however, be satisfied with this mode of treatment alone. The selection of other remedies will depend somewhat upon the severity of the case. If the urine be suppressed, dry cups, or even wet cups, to the loins will so divert the blood as to permit a relief to the stagnation which always exists in the acutely inflamed kidney. These cups should always be followed by a warm, moist poultice to the same region, which, indeed, should be used under any circumstances, whether the cupping is necessary or not. I am in the habit, therefore, of always resorting to poultices, and, if the symptoms are at all severe,—that is, where there is complete or almost total suppression of urine, nausea, headache, or delirium,—of preceding them by cupping. Although at first thought it would seem that the kidneys are quite remote from the seat whence the blood is immediately removed, it must be remembered that we are relieving the blood-pressure in the lumbar arteries which come off from the aorta near the renal arteries, and thus divert the blood from the latter. Under all ordinary circumstances dry-cupping is sufficient; wet-cupping should be reserved for the most extreme symptoms, where the strength of the patient has not been previously reduced. Some care must, however, be exercised in the use of dry-cupping, lest we defeat its end. The object of dry-cupping, as justly observed by Dr. G. Johnson, is to facilitate the movement of the blood through the capillaries into the veins,—to draw the blood rapidly through the part, and thus relieve the pressure of the blood in the renals. To do this, the cups must be removed as soon as there is a decided redness, and placed on another part in the vicinity. By allowing them to remain too long, the blood is stagnated in the capillaries, its onward movement prevented, and there is, therefore, no derivation of blood from the involved organ.

The above means have for their object the direct relief of the congestion of the kidney. This is not the only indication while the kidney is con-

* Care should be exercised to use a watery solution of iodine in testing these casts under the miscroscope, as an alcoholic solution precipitates the albumen and obscures the field.

gested. The congestion, in some instances, is altogether due to an excess of work thrown upon it, in consequence of suppressed or deficient action of the skin, and in all cases the carrying out of the natural function of the organ tends to increase any existing congestion. Can the kidney be in any way relieved of this functional irritation? Is there any organ which, in other words, can supplement the kidney? Such an organ is the skin. A second indication, therefore, is to excite the action of the skin. And in fulfilling this lies the advantage already referred to from the maintenance of warmth and avoidance of cold early insisted upon. But we are not confined to these protecting measures. The skin may be made to do the work of the kidney itself, and thus one of the most alarming dangers of Bright's disease, uræmic intoxication, averted, while at the same time the congestion of the kidney is also relieved.

The class of remedies which produce this action are diaphoretics; and, of the internal remedies, none is better than the ordinary sweet spirit of nitre, especially if it be combined with small doses of ipecacuanha. But a more effectual and certain method of accomplishing the same end is by warm baths, or, better still, by the so-called warm or "cold pack," in which the patient is wrapped in a wet sheet and then enveloped in a sufficient number of blankets. Perspiration is thus copiously induced, and when thus caused is agreeable, and never attended by the faintness which sometimes follows the use of the hot-air bath,—another means of accomplishing the same end, which will be further considered under the treatment of chronic Bright's disease. In an ordinary severe case of acute Bright's disease, a single pack of this kind will remove all symptoms which may cause anxiety, and happily inaugurate the convalescence, while it may be repeated daily, if necessary.

We may resort to purgatives to the same double end, that of relief of congestion and a complemental action of secretion, and to a certain extent these should always be employed. But the reason for which I primarily employ a purgative is less for either of these objects than for one which I deem even more essential, and that is to promote the action of other remedies, a purpose which applies not only to the treatment of Bright's disease, but also to all diseases. It is a well-known fact in the absorption of fluids, which is borne out by the phenomena of osmosis, that this does not take place rapidly when the blood-vessels are congested and there is a slowly-moving current.

The beautiful experiment of Magendie, which consisted in injecting into the peritoneal cavity a colored fluid, which at first was not appreciably absorbed, but which, on opening a blood-vessel, disappeared rapidly before his eyes, is sufficiently to the point in illustration. The treatment of any case of acute Bright's disease is therefore well commenced by the use of a cathartic, and after its effect the prompt action of other remedies may be looked for. Indeed, it is quite useless to administer diuretic remedies before some action is obtained from the bowels, as they will be many hours in producing their effects; whereas after such influence they will be as many minutes. Beyond this end I am not in the habit of giving purgatives in ordinary cases of acute Bright's disease. But there is a condition in which the eliminative action already referred to is often of signal service, and that is the one of uræmic coma and convulsions. Under these circumstances, when the patient cannot be made to swallow, and decided and prompt effect is desired, a couple of drops of croton oil on the tongue have many times saved life by inducing prompt and decided purgation.

Nothing has been yet said of the use said of diuretics, which are, perhaps, the first means thought of by most practitioners in the treatment of Bright's disease, acute or chronic, and no doubt, in many cases they deserve an early consideration. Yet the propriety of their use has been much disputed, and at first thought there would seem to be legitimate objection to them in the treatment of acute nephritis, for with the idea of increased secretion of urine is generally associated that of an increased flow of blood to the kidney. And the question naturally arises. That a kidney already congested and inflamed be further jeopardized by crowding more blood into it? On the other hand, it is well known that convalescence in a case of acute Bright's disease which has been left to recover without treatment is always ushered in by a most copious diuresis. This is usually explained by the fact that urea itself is a decided diuretic, as may be shown by injecting it into the blood-vessels of any animal,—an operation which is followed by copious diuresis. In the early stages of Bright'sd isease the urea and other organic constituents are retained in the blood, and when the circulation through the kidney becomes free, they exert their diuretic action. It will be observed, however, that this takes place only after the circulation becomes free, and it must be looked upon, therefore, not so much as a cause as a result of an improvement in the condition of the organ. Nevertheless, to facilitate such a condition of affairs as copious secretion of urine, and with it the elimination of those effete matters the accumulation of which constitutes the chief danger of Bright's disease.—uræmia,—can only be considered desirable if it can be done without exciting congestion of the kidney. The secret in the proper use of diuretics lies in the selection of such as effect their object without producing a congestion; and such there are. To understand this properly, it must be recalled that the secretion of urine is largely a process of filtration, a process of squeezing out the water and dissolved elements by pressure from behind, and that this is accomplished in the Malpighian bodies by the agency of the arterial pressure and the force of contraction of the heart. It must be remembered that there are two sides to the renal capillary circulation, an *arterial* side and a *venous* side. The first consists in the afferent arteriole and the capillary ball contained in

the dilated end of the convoluted tubule and forming with the latter the Malpighian body; the second, of the capillary net-work formed by the splitting up of the afferent vessel after it leaves the Malpighian capsule and closely embraces the convoluted tubules. The area of this is great, and the movement of the blood slow. As a consequence, a condition favorable to increasing the blood-pressure in the Malpighian body exists. Such pressure is obtained by increasing the force of the heart's contraction, or increasing the arterial pressure by the introduction of fluids within the blood-vessels. The effect of this is to produce a more rapid filtration; that is more water is squeezed out from the blood-vessels into the Malpighian capsules, whence it is carried downward in the tubules. Now whatever remedies increase the force of the heart's action or the arterial pressure by absorption of fluids will increase the amount of water thus filtered out. Such remedies are digitalis, the salines, and dilutent drinks generally,—digitalis by increasing the force of the heart's action, the salines and dilutents by increasing blood-pressure through their absorption. Digitalis is certainly the diuretic most to be relied upon, and, when combined with the salines, freely diluted, affords a powerful lever for good. It is necessary, however, to have a reliable preparation, and unless one is sure of the quality of the tincture it is best to use a freshly-prepared infusion. At the same time it is also true that much smaller doses of the tincture are usually given than of the infusion. Thus, of the latter, f ʒ s is often administered, equivalent to three and three-quarter grains, while eight minims or sixteen drops of the tincture, equivalent to one grain of the powder, are considered a full dose, a discrepancy which must account for at least a portion of the diminished effect of the tincture. Digitalis should therefore be given in sufficient quantity,—f ʒ i of the infusion to children, and f ℥ ss to adults,—repeated every three hours until an appreciable effect is produced on the rate of the pulse, when it should be diminished. Not until then can you look for a diuretic action. Digitalis, when thus administered, should, of course, be watched, and the patient should be seen twice a day until an effect is produced. Of the alkalies with which it may be combined, acetate of potassium and citrate of potassium are to be preferred. Their diuretic action doubtless depends upon the impetus they give to the osmosis of fluids which hold them in solution, thus increasing the arterial tension and contributing to the flushing of the kidney. Half a drachm of the potash should be given every two or three hours to adults, and ten grains to children. There can be no doubt that an increased filtration of water into the Malpighian capsules aids the separation of the organic constituents in the second capillary net-work referred to, both by facilitating osmosis on the principle of the more rapid current, and by washing out of the secreting cells of the convoluted tubules the organic matter already excreted by them.

By such means as these, after the unloading of the blood-vessels by the action of a purge, we may greatly serve our patient through diuretics. On the other hand, turpentine, cantharides, copaiba, and the class of diuretics which produce a congestion and stagnation of blood in the second or venous capillary net-work, are mischievous, and should not be employed.

It should not be omitted to mention that fomentations of a strong infusion of digitalis (ʒ i to a pint) applied to the abdomen or lumbar region are often efficient in producing diuresis when other means fail.

Treatment of chronic Bright's disease.—There is always an intermediate stage between that of acute nephritis and the condition of the large white kidney from which recovery often takes place, which calls for a modification of or an addition to the treatment described for the acute, and which is indicated by an impaired quality of the blood, due partly to the gradual accumulation of effete matter, and partly to the drain upon the system which a copious albuminuria certainly induces. But, as it is a condition growing out of the prolonged presence of the disease, it is practically covered in the treatment of the chronic form, and requires therefore not to be separated from it.

The chief indications in the treatment of the chronic forms of Bright's disease are two: *first*, to improve the quality of the blood, which has become anæmic and loaded with urea and allied organic compounds; and, *second*, to combat the symptoms and complications which form a source of great inconvenience, and even danger, to the patient.

The first of these indications is chiefly fulfilled by the use of iron, quinia, and strychnia, nourishing food, and proper hygienic influences; and also by depurating the blood of its retained urea. The well-known Basham's mixture, really a solution of acetate of iron, made by adding to tincture of the chloride, acetic acid and the solution of the acetate of ammonia, has the advantage of at least tending to eliminate, while it also restores. But the tincture of the chloride alone is a powerful agent which is always accessible, and, when combined with the sweet spirit of nitre, is perhaps as efficient as the Basham's mixture. To either, the quinia and strychnia may be added if desired; while to the latter the infusion or tincture of quassia makes a compatible addition.

With regard to *food*, while it is true that an abundance, and of good quality, is desired, a question has properly arisen as to the propriety of using the highly nitrogenized substances, as animal flesh. It is now well determined that the urea formed in the blood and eliminated in the kidneys is derived chiefly from the azotized elements of the food, and that the more nitrogenous food we consume the more work is thrown upon the kidneys; although here too the question is somewhat different if we suppose the separation of the urea a matter of mere filtration, or one of elaboration. But either supposition involves an increased flow of blood to the organ; and, although I cannot speak from any certain knowledge that disadvantage results from the free use of nitro-

genous food. I feel that the probabilities from theoretical reasoning are sufficiently strong to make it proper for us to be influenced in practice by them. While, therefore, it is not desirable to omit all such food it *is* desirable to limit it to moderation, and while drawing elements of mixed food from the vegetable kingdom, to make up the deficiency in meats by the free use of milk. There is reason to believe the milk-treatment of cases of Bright's disease to have been of signal advantage in certain instances, and it is not unlikely that it depends upon the smaller proportion of nitrogen contained in it, compared with a corresponding quantity of meat.

Under hygienic measures are included a proper use of clothing and exercise. That the former next to the body should be of *wool* is absolutely essential. For it must be remembered that, on the one hand, the skin is a powerful adjuvant to the kidney, in its eliminating operation, and on the other hand, that any interference with or suppression of the action of the skin must throw more labor on the kidney. Cold is the agent which produces such suppression, and warmth the means by which the action of the skin is encouraged: and no texture prevents the former or secures the latter more effectually than wool.

For the same reason, while the maximum amount of fresh air is desirable, cold and dampness should be avoided or sufficiently guarded against. Many a case of chronic Bright's disease, often previously undiscovered, has been brought to its fatal termination by the action of cold, and especially of cold and moisture combined. Hence, too, there is no doubt that residence in warm and equable climate is often of signal service in cases of chronic Bright's disease; and cases are reported where albumen has disappeared and recovery apparently taken place in a warm climate, where their previous duration was such as to make recovery highly improbable.

It is doubtful whether other measures than the above are necessary in cases of *contracted kidney*, where the external symptoms of the disease are often so trifling that they have never been observed by the patient; while the discovery of the presence of the disease is often accidental, as where the patient consults his physician for an inexplicable weakness, and the latter in exploring the case discovers albuminuria and casts. In these cases the complication of dropsy seldom occurs; and the extent to which life may be prolonged by suitable care may only be limited by its natural termination. On the other hand, such a person, with the disease undiscovered and uncared for, is in hourly danger from the uræmic intoxication which a shower of rain or a period of unusually prolonged mental and bodily fatigue may cause.

It is more particularly in the *large white kidney* and the later stages of the *albuminoid organ*, that more decided measures are called for to depurate the blood of its accumulated impurities, as well as to combat the symptoms which cause inconvenience or jeopardize life. These symptoms are those of dropsy, effusions into the serous cavities, and congestions. Such patients are usually confined to the house, or go out of it at such great inconvenience as to make it intolerable to do so. Of dropsy there is abundant evidence to the naked eye, but of the necessity of depuration there is unfortunately no direct means of estimation except by a volumetric analysis of urine, which involves so much trouble and care as scarcely to be possible to the general practitioner. Fortunately, however the means which are best calculated to relieve the one are most likely to relieve the other. These measures are, in addition to diuretics, such as promote a more decided action of the skin than any yet alluded to, and certain purgatives.

With regard to diuretics, nothing need be added to what has been already said, bearing in mind that digitalis is our most powerful lever. But with regard to measures which promote a decided action of the skin, I desire to add a little more. These are the "warm pack-bath," and the hot-air bath already alluded to. The latter, in consequence of its more ready application, is to be preferred whenever it can be borne. I have recently, in my wards at the Philadelphia Hospital, used considerably the hot-air bath, and made some observations to determine its value; the results of which satisfied me that we have a much more useful agent than many of us have suspected. A patient with large white kidney was under my observation for more than a year. During a portion of this time his urine was carefully measured, and a portion of the twenty-four hours urine analyzed for urea by Liebigs volumetric process, which was repeated to insure accuracy. He was a very large man, passing copiously of urine, and the quantity thus arrived at was 540 grains; the total quantity of urine being 2000 cubic centi-metres (66$\frac{3}{4}$ f$\frac{3}{}$). He was then ordered a a hot-air bath daily, during which he perspired most freely. The twenty-four hours urine was of course diminished; but on estimating the urea in the twenty-four hours after the sweating had been continued three days, it was found to be 714 grains in 1700 cubic centimetres (56$\frac{1}{2}$ f$\frac{3}{}$) urine,—actually an increase over the amount secreted when not under the baths. This can be accounted for by the increased celerity of the circulation which would naturally result. If we add to this the amount of urea contained in the increased perspiration which was of course not determined, on account of the difficulties of collection, we will perceive how powerful a means of depurating the blood of its urea is thus at our disposal; and I am quite certain that if the use of the hot-air bath were more common our power over Bright's disease would be greater. There is a common impression that it is troublesome and difficult of application. But this is not the case, as may be seen by the apparatus I exhibit, being that in use at the Philadelphia Hospital. Sometimes, however, these hot-air baths are not well borne by patients; they do not perspire, and the head and face become flushed, and the former throbs and aches. Under these circumstances the warm pack already described may be used instead. It is perhaps

equally efficient, but is more troublesome* It may be objected that these means are exhausting to the strength of the patient; but I think they will be found less so than is commonly supposed; the strength of the patient may, however, at the same time be maintained by iron, tonics, and milk.

The use of *purgatives* for depurative purposes and to reduce the dropsy has long been common in the treatment of chronic Bright's disease, and to this end it has been common to select a peculiar class of purgatives, viz., those which produce profuse watery evacuations, as elaterium, scammony, gamboge, and jalap. In addition to the indications to relieve general venous congestion with a view to promoting absorption, the advantage to be derived from the use of a brisk, prompt cathartic has already been alluded to in speaking of the treatment of acute Bright's disease. But it must be remembered that in the circumstances now under consideration it is not a temporary cause the effects of which we desire to obviate, but a constantly acting one, so that to be of service the purgative must be continued day after day, or every other day at least. Now, such use of the hydragogue cathartics above mentioned cannot be continued for any length of time without materially reducing the strength of the patient much more decidedly than through the daily sweat. I do not deny their effect in diminishing the dropsy. On the other hand, I have many times observed this effect, and in some I have observed the dropsy totally disappear,—but with it the strength of the patient to such an extent that as the dropsy subsided the life of the patient went out with it, so that it might truly be said that had the patient lived a little longer the dropsy would have been cured. I am not, therefore, very partial to the continued use of cathartics in chronic Bright's disease. But it must be remembered that it is to the prolonged use that I refer. To relieve a sudden emergency, as the occurrence of uræmic symptoms,—in a word, under the same circumstances under which I would use them in *acute* Bright's disease if they could be administered, would I give them. Of the remedies mentioned, undoubtedly the one which most strikingly produces the desired effect is elaterium. The profuse painless discharges which it effects in doses of one-twelfth to one-sixth of a grain are well known, while the small quantity required makes it peculiarly easy of administration.

But in most cases of chronic Bright's disease, except the chronically contracted kidney, a stage is finally reached at which all treatment of the kind described fails to relieve the dropsy, which becomes eventually the sorest burden of the malady. The body becomes greatly increased in weight, the integument of the extremeties is stretched almost to bursting and sometimes it does rupture, when it is attended by a leakage, which, although in one way inconvenient, is in many senses a great relief to the patient, by diminishing the tension referred to. Acting upon this, physicians have long been in the habit of puncturing the swollen parts to produce the required leakage. In my early experience I once had such horrible results in the sloughing away of the entire scrotum of a little child with scarlatinal nephritis, after I had punctured it, that I declared I would never repeat it. But as other cases came under my observation my prejudices thus excited gradually disappeared, and I now resort to puncture when it seems likely to give relief. It only remains to determine the best method of performing the operation. It is a common practice to make a number of minute punctures with a needle or sharp-pointed bistoury. Dr. George Johnson, of London, recommended making a free incision half an inch long, just above the outer or inner ankle of each leg, and deep enough to enter the areolar tissue beneath the skin. This may be done with a bistoury; but Dr. Johnson used an instrument mounted like a spring-lancet, which he recommends as more efficient and less painful than the repeated fine punctures. He relates an instance which is so remarkable and so admirably illustrates the possibility of recovery when the symptoms have reached an advanced stage, that it is quite worthy of re-narration. In July, 1861, he saw a clerk, aged 32, who had suffered from general dropsy since the end of March, after exposure to cold. The urine became nearly solid with acid and heat, while it *contained numerous oily casts.* Purgatives and diuretics failed to lessen the dropsy, and at the beginning of September the swelling was so great that the skin cracked and water oozed through the fissures. The legs were now incised; a copious discharge of water occurred, and the urine became more copious. From that time he steadily improved; the dropsy passed away, and gradually the urine ceased to be albuminous; but it was not until the end of April, 1862, more than a year from his illness, that all traces of albumen had disappeared. The chief medicinal treatment after the incision of the legs was the use of tincture of perchloride of iron three times a day, and a dose of broom-tea in the morning. Such recoveries as this are rare, while their possibility shows the value of hopeful perseverance in treatment. I have never seen the instrument referred to, but have made the large incisions with satisfactory results, although I can point to none so satisfactory as Dr. Johnson's.

With regard to specific methods of treatment, none are of any avail, and, so far as they ignore special indications, they are mischievous. I have heard of calomel being used for long periods to the production of its specific effects,—for what object, except to hasten the blood-dyscrasia which is the ultimate cause of death, I cannot say. It requires to be mentioned only to be deprecated.

The use of *opium* requires to be alluded to. The caution which has always been suggested in its use I believe to be in the main a wholesome one, and I should prefer to produce hypnotic, sedative, and

* Since reading the paper, a member of the Society has suggested the propriety of tying a wet handkerchief about the head, as is done in the Turkish bath, with a view of preventing these unpleasant head symptoms; and it is not unlikely that it would prove an efficient agent.

antispasmodic effects by chloral and the bromides whenever it is possible. I am sure I have seen death accelerated in one case of previously unsuspected chronically contracted kidney in which large doses of opium were exhibited for another purpose,—overdoses, in fact, but quite insufficient of themselves to produce the fatal result, which was preceded by uræmic stupor. After death the urine was drawn by a catheter and found to be albuminous, and a post-mortem examination revealed a contracted kidney. On the other hand, I would not omit the use of opium where there was decided indication for its use to allay pain. It is well known that Prof. Loomis, of New York, treats with apparent success cases of uræmic convulsions with hypodermic injections of large doses of morphia (one-half grain or more),—doses which I would fear to use under ordinary circumstances in the absence of renal disease. A method, however, suggested by so high an authority as Dr. Loomis merits a trial, which I should be glad to give it under appropriate circumstances.—*Philadelphia Medical Times.*

AN EXPERIENCE WITH CHLORINE.

Dr. A. B. Granville, in his Atuobiography recently published in England, gives the following account of an accident that occurred while he was lecturing on chemistry in the Westminster Hospital Medical School:—

I had prepared and carefully collected, in the presence of my class, a considerable volume of chlorine gas in a globular glass vessel, when the asistant on my right hand had occasion to pass something over to "George," whose fat hands were too clumsily shaped to keep fast hold of the proffered object. It fell into the glass recipient, breaking it, as a matter of course, and releasing the imprisoned gas, which went straight into the nostrils of the lecturer, who thereupon fell like a lump of lead to the ground, alarming not a little the whole class, which happened to be numerous. The first who rushed to my assistance raised and placed me on a chair, windows were thrown open, cold water was poured on my head, liquid ammonia exposed under my nose, and a glass of brandy poured down my throat—the whole process ending in my recovery but completely deprived of my sense of smell, which I have never recovered since. Some readers may feel disposed to exclaim, "So much the better for you, doctor, who will have to go through so many unsavory matters." "True! but how much more shall I miss the smell of the rose!"

I shall only add another trifling physiological fact, from its curiosity, and also because I have never been able to explain it to my satisfaction. It was about ten years after the chlorine accident, and of the deprivation of my sense of smell, that driving with my wife towards Harrow, and while passing what were then fields celebrated for carpet beating, but now crowded with houses and streets, I became suddenly sensible of the delicious smell of new hay, which was in the process of being made that day. I pulled up my horse, and remained some time perfectly enchanted with delight (I don't exaggerate) at my recovered sense. We remained nearly an hour motionless, and I drove off towards Harrow, proposing to come back the same way at sunset, hoping to enjoy again the same delicious sensation. In this, however, I was disappointed; nor have I ever enjoyed it since.

RUSSIAN CURE FOR DRUNKENESS.

BY H HABOWIZ.

For some time past *Herba serpylli* (wild thyme) has been used with great success to effect a permanent cure of drunkenness: in case of a relapse (only after years) a short treatment will effect a cure again. The treatment consists in making an infusion of wild thyme (1½oz. to 1½ pints), and give the patient a teacupful every half-hour. The next day it is given every two hours, and then 4–6 times a day until the cure is complete, which generally takes from 2 to 3 weeks. The effects are in the following order: vomiting, diarrhœa, increased urine, strong transpiration, then generally increased appetite and craving for acidulous beverages. The diet: easily digested food and lemonade or other acidulous liquids.—*Am. Journal of Pharm.*

ANÆSTHETIZATION DURING SLEEP.

Dr. Cluness reports in the *Pacific Medical Journal* two cases of successful chloroformization during sleep.

The first case was that of a little girl, aged eight years, in whom, as a sequel to acute otitis media, the mastoid cells of one side became inflamed. Chloroform was administered upon a four by six piece of Surgeon's lint, held as near the child's mouth as possible during sleep without coming in actual contact. Not the slightest effort was made by the chld to avoid the inhalation of the anæsthetic, and in a few moments she was well under its influence.

The second case was on the person of a little girl two and a half years old, for the purpose of having a supernumerary toe removed from each of its feet.

COMMON SENSE IN THE SICK-ROOM.

A LECTURE DELIVERED AT THE BELLEVUE HOSPITAL MEDICAL COLLEGE, BY A. B. CROSBY, M.D. PROF. OF ANATOMY, ETC.

Gentlemen:—I now ask your attention to what may be called "*common sense* in the sick-room." There are certain incidental matters pertaining to the sick-room which not only contribute to the comfort of the patient, but have very much to do with the favorable or unfavorable termination of the case, and these elements are so absolutely suggested by common sense, that there is no impropriety in using this term as a text for the present lecture.

Now there are certain elements of hygiene which it is very important that we should observe—whether the sick-room contains a surgical or medical case—if we would reasonably expect to obtain the best possible results from treatment. In the first place the

TEMPERATURE

should ordinarily range from 65° to 70° F., and this should not be a mere matter of guess-work, but should be ascertained by the thermometer. If the temperature is permitted to average much higher than this, all febrile disturbances will very likely be aggravated; and, if the average is much lower, the patient in ordinary cases runs some risk of getting a chill, although very many times he may remain with safety in a room having a lower temperature providing he is furnished with a plentiful supply of blankets.

SELECTION, PREPARATION, AND FURNITURE OF THE ROOM.

The room which is selected for a sick-room should be as far removed as possible from those ordinarily occupied by the family, in order that the patient may have the benefit of perfect quiet. It should be large, airy, well lighted, and, if possible, should have a sunny exposure.

The *wall* of the sick-room is a pretty important matter to the patient. If it is covered with one of those dreadfully variegated papers, which, alas, are regarded as ornamental, it will be found, especially if the patient is suffering from any disease in which there is abnormal exaltation of the brain, that it is a source of great annoyance, and may even be positively injurious. For, as his eyes run over these pictures, he will fancy that he sees images of various kinds, such as angels and demons alternating; indeed these figures will assume every conceivable form, and he becomes thoroughly worried in the attempt to disentangle the confusion.

The paper covering the wall should have a uniform neutral tint, such as a light green, a delicate buff, or a very delicate slate color, a light green, perhaps, is as agreeable to the eyes as any color that can be selected, and it rests the eyes with a refreshing monotony. Such a uniform tint tends to "healthy stupidity," and this leads to repose. The *floor* of the apartment should engage your attention.

The model sick-room should never be carpeted, but ordinarily should have a hard-wood floor, and this should be oiled and varnished. Upon such a floor may be spread as many pieces of carpeting, rugs, and mats as are desirable. These may be placed in front of the bed, over the parts which the nurse traverses while performing his or her duties, at the doors, etc. Each morning, these can be quietly slid along the floor, taken out, and be thoroughly shaken and aired. After they are removed, the floor can be wiped off with a damp cloth or soft brush, and when dry, the rugs, etc., may be replaced.

If the floor is managed in this manner, what was known among the older writers as the *materies morbi*, certainly is not likely to accumulate, and that is an essential item of consideration in the management of the sick-room. The *windows* should also engage your attention. These should be so arranged as to admit abundance of light. Light is a nominal stimulus to the human body, and we have no good health without it, you cannot grow healthy cabbages in a dark cellar, nor can you any more easily cure invalids without the influence of sunlight. There are some acute diseases, during the progress of which it may be necessary to temper the light, but it should never be entirely shut out, for if you do you remove from the body one of its important natural stimuli.

The windows never should be surrounded by tapestry or decorations of any kind that are made of woollen stuff. A plain white shade is all that is requisite to temper the light and cut off outside objects from the patient's view, and the window frames should be free from lambrequins, hangings, etc., which may become impregnated with the germs of disease.

CLEANLINESS.

It may seem absurd to you that I mention cleanliness as an essential element in a sick-room, and insist that it is one of the things which you should bring under your personal inspection, but I suspect that it is far less frequently seen in the sick-room than even godliness itself, although we have eminent authority for placing it *next* to godliness.

The average housekeeper is very apt to make a good show, hence covers the bed with a clean counterpane, which may be like a "whited sepulchre," within are "deadmen's bones;" and it is true, in very many instances that absolute cleanliness will not be maintained unless the physician himself makes an inspection of the details. Your patient may live in a fine house belong to an "old family," one regarded as irreproachable in respect to cleanliness, and yet a sanitary inspector may find many hygienic errors to be corrected. Now, if the floor is not covered with a carpet, the physician can very easily determine whether it is clean or not; but, if carpeted, it is altogether probable that a considerable amount of dirt could be found if the carpet were removed. Next you will observe what condition the bed itself is in. I am well aware that it is an easy matter to place a neat clean sham over the pillow, and a clean spread over the ordinary covering, just before the doctor is admitted, so that the bed may have the distinguished appearance of cleanliness; but it is not a difficult matter to turn these aside sufficient to enable you to determine for yourselves whether the real covering of the bed and pillows are clean or not, and your examination can be conducted delicately without giving offence or even being observed. In a majority of cases, changing the bed-linen once or twice a week is not sufficient. When a person is confined to the bed especially with any febrile disorder at least one clean sheet should be placed upon the bed each day.

This may be the upper one, and it may be used as an under sheet the following day, if it has not become soiled. The pillow-cases should be changed equally as often. If the patient is suffering from any of the severer forms of acute febrile disease such as scarlatina, typhoid fever, etc., or from a disease in which there is any tendency to septic influences, an immense benefit will be derived from changing the bed throughout every day.

IMPROVISED STRETCHER.

Suppose, now, that your patient has received some severe injury, or is suffering from some disease, which renders it desirable that his bed should be changed daily, or even oftener, how can it be done with the least inconvenience to him? If there are two beds in the room, one may be rolled close alongside the other, and then the patient be lifted from one to the other; and it is a good plan to allow him to occupy one bed at night and the other during daytime. This is especially beneficial when there is any tendency to septic disease, or the patient is severely sick with some febrile disorder, for it gives the attendants an opportunity to remove all the bedding into another room or other convenient place, where it may be shaken and thoroughly aired so that when it is again used it will be entirely refreshed. All this can be done without annoying the patient even though he is extremely sick or suffering from a severe injury.

But it may be said that moving a patient so much, who is extremely sick, is of itself objectionable. This, however, is not a valid objection for the reason that it can be done without inconvenience to any patient. If there is a condition present known as hyperinosis, such as is frequently seen in puerperal women, there may be an objection to moving the patient in an upright posture or even permitting her to assume such a posture, lest embolism or thrombosis occur suddenly and terminate life; but such a person can be moved with perfect safety while kept in the horizontal posture, and even carried from one room to another if desirable.

Now the means for moving such patients from one place to another can be found about any house, especially in the country, and I have succeeded in obtaining all the materials necessary for this purpose even in a medical college. What I wish to do is to improvise a *stretcher*, and for that purpose all that is necessary is a strong sheet or blanket as long as the patient, two rods of the same length of the sheet and an inch or more in diameter. If you are in the country you certainly can find rake-handles, and they answer the purpose as well as anything that can be used. In order to move a person easily, four assistants are necessary, who are to stand, two on each side of the sheet and *exactly* opposite each other.

Let us suppose, now, that the sheet upon which this gentleman is lying is the one to be made into a stretcher; you will place one of the poles close to the edge of it, and then roll the sheet over it very tightly up to perhaps within six or eight inches of the body. It does not require strong rods at all for this purpose, but the special point is to draw the sheet out smoothly from the patient while you are rolling the stick up inside of it. The opposite rod is adjusted in the same manner. When every thing is ready the assistants should grasp the rod firmly with their hands placed about two feet apart, and, as near as possible, directly opposite each other, so that as they lift, and at the same time draw against each other, the sheet will be supported at exactly opposite points. Now direct the assistants to first drag strongly against each other and then lift, and keep constantly pulling against each other as they move along. Such a stretcher can be easily improvised, and affords a means by which a patient can be moved without annoyance. If the patient whom you are moving happens to have a fracture, unless the precaution is exercised of directing one assistant to grasp the rod with his hands exactly opposite those of the assistant upon the opposite side, you may disturb the broken bones in the act of moving.

If you wish to move a man who has accidentally received an injury, any distance, a stretcher can be improvised in a similar manner, by using a blanket and a couple of poles, such as a couple of strong saplings would make, fastening them in the blanket with stitches of twine or strong thread, and then placing a forked stick between the handles close up to the blanket, of such length as will put it upon the stretch. If the number of bearers is limited to two and they desire to assist their arms, it can be done by fastening a strap to the handles long enough to pass up over the shoulders.

There is one precaution that the bearers should always exercise, and that is to break step while walking. If the bearer in front steps off with the right foot, the bearer behind should advance the left foot first.

All of this may appear to you like an insignificant matter, but it not infrequently happens that the comfort of your patient, the rapidity of his recovery, and, it may be, the recovery itself, will materially depend upon your ability to devise a plan for moving him from one bed to another without annoyance, and while in the horizontal posture. In ordinary cases of sickness, one bed can be brought to the side of another and the patient slid from one to the other, or he may be lifted across in the sheet; but where persons are very much debilitated or suffering from a severe injury, they may not be able to endure the fatigue which even such slight movements will subject them to. In such cases the means just described may be resorted to with the greatest advantage.

MANAGEMENT OF THE DEJECTIONS.

There is no single point which should so thoroughly engage the attention of the physician as the care of the dejections of the patient. In many instances it is necessary for the physician to inspect the passages from the bowels, and unless you give proper directions regarding the manner in which they should be kept, you will find, much to the annoyance of every one, that they have been quietly slipped into some closet or room immediately adjoining the sick-room or some other equally unsuitable place. Such safe-keeping, however, hardly comports with a proper degree of cleanliness, and you should, therefore, give special directions, in case it is desirable that the dejections should be preserved until your next visit, that they shall be, if possible, carried out of the house, or at least that they should be carried into some out-room or bath-room in which a window is constantly open.

In addition, you may observe some preliminary precautions, in cases of dysentery, typhoid fever, or where a septic condition is present; in short, all those cases

in which you wish to destroy the odor immediately as well as any organic putrefactive matter which may be present in the dejections by employing some disinfectant.

For this purpose I know of no substance that acts more promptly and efficiently than permanganate of potash.

A solution of the strength of one grain to the ounce of water, sufficiently strong, and a few ounces of this liquid poured into the vessel that is to receive the discharges, will correct the most offensive odor in a very short time.

You will recollect that permanganate of potash is exceedingly rich in oxygen, and when it comes in contact with organic material, especially in a state of putrefaction, it becomes decomposed, and the oxygen is set free. That is, the oxygen is now in what is called its nascent state, and in that state it has a tendency to unite with whatever organic matter it may chance to come in contact.

In this way the organic matter is burned up, as it were, on the spot, and all odor and septic poison is destroyed by the action of the permanganate of potash This solution may be used with the utmost freedom about the vessels that are to receive the dejections, and in the water-closets, in all cases where there is offensive odor.

VENTILATION.

This is another point which should always engage your attention, for the same person, when sick, demands a much larger supply of fresh air than when well. For instance, if a healthy person requires two thousand cubic feet of breathing space, the sick person under the same circumstances should have at least three or four thousand cubic feet. Then, again, the sick man should have the air changed twice as frequently as the man in health.

Ventilation requires the introduction and diffusion of an abundance of pure air at short intervals, and a corresponding removal of the air vitiated by respiration. The movement of air in the sick-room should be imperceptible. At a temperature of 55°to 60° air moving at the rate of three feet per second, is perceptible. Any more rapid movement than this gives rise to a draught of air, and will endanger the patient.

It is essential that the air should be thoroughly diffused,and then be removed after being breathed once.

It is claimed by some that the "law of the diffusion of gases" will insure perfect ventilation. But this law acts slowly; whereas the vitiation of the air by respiration goes on rapidly.

Others think that the wind can be made to ventilate thoroughly. The objection to this is that the wind is not constant and incessantly varies in velocity and force.

The most reliable method is that which depends on the variation in the weight of the air by heat.

In every attempt at ventilation we are to first settle the question whether the impure air is to be removed from the apartment at the base or at the ceiling. The latter method is far inferior to the former.

If there is a hot-air register in the floor on one side of the room, and a ceiling ventilator on the opposite side, the hot air will rise immediately to the ceiling, along which it will glide, and escape through the ventilator. Meanwhile, the bulk of the air in the room will hardly have been disturbed at all, and in sleeping rooms, especially, there will be very little diffusion. We are not to lose sight of the fact that carbonic acid gas is much heavier than atmospheric air, and that the bad air will naturally gravitate to the lower part of the room. A heated flue, with an opening at the base, will remove the bad air rapidly and insure the best diffusion. The old-fashioned fireplace answered the same purpose, and is by far the simplest and best method of ventilating any sick-room.

If the chimney has a throat one and one-half feet square, with a good fire, the air will move through the chimney at the rate of four feet per second, and air will be discharged at the rate of six cubic feet per second, which would be at the rate of twenty-one thousand six hundred cubic feet per hour.

Supposing a room of the capacity of two thousand cubic feet, with a fireplace as above, and with three persons in the apartment, the doors and windows all being shut, the air would still become bad through lack of proper diffusion. The whistling of the air about the windows of such a room—fairly shrieking to get in—can always be heard.

If we now open a window farthest away from the fireplace *at the top*, diffusion and ventilation will be good enough.

If the sick-room is ventilated by a fireplace, we should always open a window at the top. If the room, on the contrary, is heated by a register, a window should always be raised at the bottom, since the hot air rises to the top of the room, creates a plenum, and so forces the air out at the bottom. There are three points to be observed in regard to the sick-room. Note, first, whether there is any perceptible odor, on entering the apartment from the open air, if so, ventilation is imperfect.

Make sure, in the second place, that there is a free inlet and outlet for the air.

And thirdly, place an open-mouthed bottle by the side of the bed at night. In the morning, before there is any opening of doors or windows, or any movements about the room, pour a little clear lime water into the bottle and shake it. If the air in the bottle is pure, the lime-water will remain clear, but, if otherwise, it will become milky in appearance showing carbonic acid in the air, which has united with the lime, forming a white precipitate of the carbonate of lime.

DIETETICS.

The few remaining minutes of the hour may be devoted, perhaps with profit, to a few important items with reference to the dietetics of the sick-room.

It was a doctrine taught by our grandfathers and fathers, that when a man was sick, he should first be starved, second bled, and next receive ten and ten, which meant ten grains of calomel and ten grains of jalap combined. If these measures did not cure the

patient the first day, they were repeated on the second, and so on.

But I do not believe that, simply because a man is sick, or because he has some fever, he should be knocked down with the lancet or some powerful sedative agent. All these agents may be used with discretion in accordance with the principles of the old New England doctor, who achieved a remarkable degree of success in the treatment of typhoid fever. When asked what he attributed his success to, he replied, "When I enter the sick-room, I look my patient over carefully, and if he is cold I warm him: if he is hot, I cool him: and if he is about right, I let him alone; that is, I study to equalise matters as much as possible, and use drugs only when necessary."

A man, simply because he is sick, is not to be starved, nor, on the other hand, can a man who is sick, as a rule, take such articles of food as a well man could be likely to take.

It may be doubtful whether a man when first taken sick, should take a large quantity of food, but one of the articles which he may have is *Indian gruel*, if not made too strong. If, however, you give permission that the patient may have gruel to take, unless you give special directions as to how it shall be made, you will very commonly find that the nurse has prepared a fair specimen of Indian pudding, and and has been administering that for gruel.

In making Indian gruel there should be no more than a dessert spoonful of the meal to a quart of water, and this should be boiled for a long time, keeping the quantity of water good throughout the entire boiling process.

Prepared in this manner it may be made decidedly salt, and then administered to the patient during the first few days of his sickness. There is one article of diet which all persons may take under all conditions, and that is *milk*.

There are those who say they cannot take milk, that it makes them bilious, etc.; but that is not true. A person who is sick may take milk with the greatest possible advantage, because it contains, in a form easy of assimilation, all the elements essential for maintaining nutrition. It is the natural aliment of the young animal, and certainly answers a good purpose for the old animal, provided it is used properly. New milk, I do not hesitate to say, may be taken, as far as disease is concerned, in any and every condition. Perhaps it will require the addition of lime-water, if marked acidity of the stomach is present: and perhaps a little gentian may be requisite to stimulate the stomach somewhat; and it may be necessary to give it in small quantities and repeat it often; but ice-cold milk can be put into a very irritable stomach, if given in small quantities and at short intervals, with the happiest effects. We have now come to believe, contrary to the teaching of our fathers, that *cold water*, even ice-cold water, is a most beneficial drink, and therefore permit our patients to have it as often as they may wish, provided too much is not taken at any one time.

Now, *tea*, which is a wholesome beverage, and, withal, contributes somewhat to scandal, is very comforting, especially to a sick woman, and may be given without harm, if it is sufficiently diluted with milk, When made very weak—just strong enough to give a flavor—well sup lied with milk, and, perhaps, a little sugar, it gives the patient a trifle of nourishment in a very palatable form.

There is another article which has long been known in the sick-room, and that is *beef-tea*. This is not only agreeable to the taste when properly made, but it is one of the very best methods of administering nourishment. There are many who say that there is little or no nourishment in beef-tea, but it does nourish men, otherwise they could not live as long as they do upon it. I admit that bad beef-tea is not very nutritious; and it is perhaps the exception that patients get good beef-tea. It is this fact, perhaps, which, as much as anything, has led to its disuse. If, however, you will make beef-tea according to the directions I now give you, it will be found to be a most serviceable article among the dieteties of the sick-room.

Take a pound of the very best beef that can be obtained in the market—the butcher will tell you that any kind of a piece answers to make beef-tea of, but that is not true—cut it into small pieces the size of the end of the thumb, place it in a pint basin, cover *cold* water with, and then place the dish upon the back part of the range or stove, where the water will gradually get warmer and warmer, but will not reach the boiling point. Let it stand and simmer in this manner two hours. Then bring it forward, and boil over a quick fire twenty minutes, and immediately after pour the fluid from the beef, at the same time allowing the little particles which become detached to flow off with it. Now, if there is any fat in the tea it is well that it should be removed, for the reason that the bile and pancreatic secretion may be unable to emulcify it, and it may do more harm than good. If you wish to be very precise upon this point, the tea can be set aside, and when perfectly cold all the fat can be removed from the surface in a flake: or the fat may be taken up by dropping a piece of flannel upon it as it floats upon the surface of the warm tea.

It is not a good plan to strain the liquor, because this process will remove more or less of the little particles of beef, which are very essential to the value of the tea. It may now be salted, and given hot or cold, as the patient may wish; and it may be given as soon as the pulse indicates any diminution in the force of the heart's action. What becomes of this article of diet when taken into the stomach? The advocates of the worthlessness and non-essential in beef-tea would answer that it makes but little difference. I believe, however, that it is mostly taken up by the gastric veins, and, at all events, that it is exceedingly palatable and nutritious, and does do something more than simply warm the stomach and make the patient happy for a short time.

In case the patient's stomach is very irritable so that large quantities of any substance cannot be borne, you may resort to *beef-extract* for nourishment.

The proper method of making this article is to take

a pound of the best beef, cut it into small pieces, and place it in a good sized open-mouthed bottle—a pickle-jar is perhaps as convenient as any. Cork the bottle loosely, and then set it into a kettle of water which is to be kept boiling for two hours. If the bottle is now removed, it will be found that it contains a considerable quantity of fluid which may be turned off, and the beef subjected to slight pressure to remove still more.

In this fluid we have a concentrated article of nourishment, and it may be given, after it has been seasoned, either pure or diluted, according to the condition of the stomach. Beef-extract is not nearly so palatable an article of food as rich beef-tea made in the manner described. Ordinarily, however, the tea is badly made, and contains but little beef and considerable water.

Thus, gentlemen, I have considered in this lecture small points which I believe to be of practical importance; and although they have been referred to in a somewhat discursive manner, I trust they will prove to be of some service to you when you come to engage in actual practice.—*N. Y. Medical Record, Sept*, 1875.

DIGITALIS IN BRONCHITIS.

Dr. James Braithwaite writes to the British *Medical Journal*:—

Given a patient past the meridian of life, either very stout, or emaciate from previous bad health, and let him, or more commonly her, have a neglected bronchitis, and we have the following class of symptoms produced: A perspiring skin, a poor and quick pulse, urgent dyspnœa, bluish tinge of lips and skin, and respiration accompanied by loud wheezing sounds. The most successful plan of treating these cases, so common during the present severe winter, is the free administration of digitalis, which may be advantageously combined with the compound spirit of ammonia. The digitalis may be given in doses of ten minims of the tincture every two hours.

In these cases, it is the heart which is at fault, the right ventricle being gorged with blood, which it is unable to propel through the lungs. The best test of the truth of this theory is its success, for the pulse will be found to become full and slow, and the breathing relieved, directly the digitalis has had time to act on the heart. Its action is sometimes assisted by the judicious admistration of a little alcohol. I prefer common gin. If, however, it be found that these cases of commonly called bronchitis are really dependent, for their non-recovery, at least, upon weak hearts, care must be taken as to the administration of stimulants, for they accelerate the action of the heart, and in the end weaken it. In fact, digitalis slackens the speed, and stimulants increase it, so they to some extent contradict each other. I have had some cases lately in which twenty minims of tincture of digitalis were given every two hours for a whole day, and then decreased to ten minims every four or six hours. This medicine will be found to be chiefly valuable when the pulse is weak and rapid. In one old lady about eighty years of age, the effect was remarkable, and in another, seen to-day, the pulse has fallen to 76, with corresponding relief to the other symptoms. In another case, in which the pulse was 130 and very weak, it acted magically, but I am sorry I made no note of the exact rate to which the pulse fell. Good support of all kinds may at the same time be given. I like stimulants less and less in this form of disease; if you want a horse to go one mile rapidly and well, the spurs may be used, but for a long journey a steady pace is better.

Some patients are more susceptible of digitalis than others, therefore the effects must be watched, and the dose increased or diminished, as necessary.

PROPER CONDUCT OF MIDWIFERY PRACTITIONERS IN PREVENTING INJURY TO PATIENTS FROM PUERPERAL INFECTION.

Dr. J. Matthew Duncan (*British Medical Journal*, May, 1875), in a letter to the Obstetrical Society, of London, makes the following statements: The charge of homicide by infection he regarded as a new one in the history of law, and in the present state of science and practice not substantiated. In ordinary circumstances, he regarded the giving up of practice for a time, with a view of preventing the spread of puerperal fever, as unnecessary. In nearly thirty years of obstetric experience, in private, in hospital, and in consultation practice, he had not as a precaution given up work for a single day. The grand precautionary measures for obstetric practitioners to adopt were: (1) Avoidance of the duties of nurses; (2) Avoidance of using the hands in post-mortem investigation; (3) Antiseptic cleanliness of the hands and of the dress.

CHRONIC FOLLICULAR PHARYNGITIS.

By Bernard Tauber, M. D., Cincinnati, O.

To the physician is rarely afforded an opportunity to see this disease until it has existed for several months or years. The patient will complain of dryness in his throat, with or without a disposition to cough or expectoration, or to clear his throat from a foreign body, feeling a lump, a hair, or a pin, etc.; some degree of hoarseness; more or less impairment of hearing and trouble in swallowing. With all these symptoms the patient will enjoy tolerable good health. At a later period all the symptoms will have increased in severity.

The causes of this affection are generally those which bring on a catarrh of the mucous membrane. Public speakers, clergymen, singers, smokers and spirit drinkers are especially liable. In medical literature this affection, from its frequency among

the clergy, is known as the "clergyman's sore throat." It is not confined to this class alone, and the prevalence among them is due to exposure to draughts from open windows, and inequalities of temperature under which they often preach, etc. The appearances present themselves in small circular or irregular projections, either isolated or in clusters, varying from that of a pin-head to a small pea. Their color is deeper red than the surrounding mucous tissue. These prominences consist of enlarged or hypertrophied glands. Usually we notice a narrow line of redness about the base of them. Frequently the patches are close to each other bordered by these red lines. Sometimes the mucous membrane appears sunken, and has a granulated appearance, and may occupy the edges of the arches of the palate. At this stage the patient is not annoyed much—the voice is not much affected; will be no cough, and the expectoration will be a viscid mucous. At a later stage the follicles become more enlarged, the mucous more viscid and adherent. The disease advancing to the posterior wall behind the soft palate, invading the glandular tissue of the vault of the pharynx, often strings of mucous will hang from the posterior wall of the soft palate and extend up to the posterior nares. The patches of enlarged follicles becoming larger, their surface is often velvety. In the interspaces we may notice certain spots of superficial ulcerations, indicating a destruction of the epithelial layer of the mucous membrane. The tonsils and uvula are apt to become irregularly enlarged, and covered with a grayish or whitish secretion. The voice is often affected (though the larynx may not be implicated at first, but eventually it becomes involved), is husky at times and hoarse, or the patient may be aphonic in the morning, but when engaged in conversation the voice gradually becomes clearer. In swallowing solid food there is pain. The patient may complain also of impairment of hearing, because the lower portion of the mucous membrane of the eustachian tube is continuous with the mucous membrane of the pharynx, and the disease may thus be propagated along the tube, and thus affect the structure of the middle ear. By a chronic thickening of these parts, the free opening of the eustachian tube is narrowed, and the access of air into the interior of the middle ear is excluded. Inflammation and enlargement of the uvula frequently co-exists with chronic follicular pharyngitis, and gives rise to a harassing cough and expectoration.

The treatment of this affection must be a chronic one, and seldom the patient will submit to it; therefore it is not always so successful as one would expect. These cases require constitutional and local remedies, and especially the later. Sometimes the effects are very prompt, again very slow. In using astringent solutions the pharynx should be washed out by a syringe or a spray, to detach the strings of mucous adherent to the mucous membrane. This is of great importance. It is good policy not to commence with a strong solution; and apply with a small camel-hair pencil, or a small piece of cotton held in a pair of pharyngeal forceps, and use a solution of nitrate of silver 30 grs. to the ounce, and increasing it to 60, 120, and 240 grs. to the ounce. The solid stick is employed when we desire to produce a destruction of the parts and maintain it in contact for some seconds.

At the clinics and hospitals in Europe, nitrate of silver is always used in diseases of the pharynx. Should we fail with this treatment, we may adopt the plan to split each follicle with a point of the knife, touching it with a crystal of nitrate of silver. We employ in addition to it the spray of solutions of tannic acid, alum, sul. zinc, or sulp. copper, etc. In order to keep up the astringent effect, we can also assist the local treatment by the use of counter-irritations. Some authorities recommend in obstinate cases, in addition to the constitutional treatment, the use of the iodide of potash; sometimes the bichlori of mercury in small doses is administered w iodide of potash, even if there is no syphilitic ta to expect.—*Cincinnati Medical News.*

ACTUAL CAUTERY.

Dr. Brown-Séquard has lately drawn attention to the use of the cautery, and declares it has not yet been fully appreciated. It need not pain much—the less the better in most cases. The minimun of pain is caused by a white heat, which instantly destroys the outer layer of the skin, so that radiation does not penetrate.

Jobert de Lamballe and Valleix have the utmost confidence in the cautery for neuralgia. Charcot has found it the best treatment in Pott's disease. If we are not mistaken, Sir D. Corrigan has for many years used it in spinal cases, but we do not know with what result.

Dr. Brown-Séquard would much extend its use in general paralysis of the insane. He firmly believes in the possibility of a cure provided the morbid alterations, not only of the brain proper, but of the medulla oblongata and of the spinal cord, had not advanced too far. There is a morbid state in which he finds the power of the actual cautery especially great: it is coma. In chorea he had effected a permanent cure by this method within a week, in one case which had resisted all ordinary means of treatment.

The cautery is very powerful in epilepsy, especially when the disease is due to a blow upon the head, or is caused by congestion or inflammation of the membranes of the brain. In summing up the cases of organic or functional disease in which the actual cautery is of service, Dr. Brown-Séquard mentions pain in any region, but especially neuralgia; congestion or inflammation in the brain, the spinal cord, the lungs, the heart, and other viscera; serous effusion into the joints, the pericardium, and the pleura; paralysis agitans; neuroses, especially epilepsy.

The rule to be followed in determining the place of application is to choose that part of the skin which is nearest to the pain. In locomotor ataxy the sensation is referred to the periphery, consequently apply the iron there: but this rule is not absolute. In locomotor ataxy apply the iron to the lower limbs, at the spot where the pain is felt, or over muscles

attacked with cramp. In cases, however, of myelitis or of spinal meningitis as associated with congestion or inflammation of the fibrous tissue uniting the vetrebræ, the best place of application is over the tender spots of the spine.

No special instrument need be used; if the poker is resorted to it should not be applied over a large surface or pressed hard, if it is desired to avoid giving pain. Lines and occasionally points should be made rapidly. The outer layers of the skin are dried up, and fall off after a few days. No sore or scar remains, so that there is no danger of disfiguring the face, or any other part. The most convenient instrument is one consisting of a steel or platinum bulb about the shape of an olive, but much smaller. To act safely in a cavity like the mouth, or on a restricted part of the skin, a very small steel bar or shaft may be used, which, when heated, is pushed inside a protecting bulb.

As regards the frequency of the applications it necessarily varies greatly. In cases of neuralgia five or six lines are to be made three or four times, at intervals of two or three days. A single application is usually sufficient to allay the pain of locomotor ataxy. This treatment must be repeated many times for inflammations or serous effusions, especially when chronic. In neuritis the method may have to be persisted in for years.

ANÆMIA.

(*The Lancet*, August 7, 1875).—Dr. Julius Pollock calls attention to that form of anæmia which is met with in young unmarried women and is usually associated with some disorder of the catamenial function. He relies chiefly upon steel to effect a cure: but if the tongue is coated and the digestion much impaired, the more astringent forms of iron, such as the sulphate or the percholoride, are often not tolerated at first; and the ammonia-citrate, the mistura ferri comp., or the ferrum redactum, will be the best to begin with. In a large number of cases he has found nothing so successful as a combination of the ammonio-citrate of iron and rhubarb in suitable doses, with equal parts of some bitter infusion and peppermint-water. Sometimes the addition of two or three grains of the carbonate of ammonium seems to be useful. He makes rather a point of the rhubarb, although it is so disagreeable to take, believing it to assist the action of the steel, especially when the stomach is out of order. If the patient is very nervous, ten grains of the bromide of potassium may be added with advantage to each dose of the mixture. If the rhubarb in the mixture does not act enough upon the bowels, it will be necessary to prescribe some aperient pill to be taken at bedtime. Preparations containing aloes are of service, and may be combined with steel. Pepsine is often useful with the meals. The diet should be light and simple; beer had better be avoided in most cases, and a glass or two of light claret may take its place with advantage. Claret is certainly better than port, although that wine is so often recommended. A moderate amount of exercise out of doors, when the weather permits, should be insisted upon, but anything like fatigue must be avoided. A tepid bath in the morning and a rub down afterwards with a rough towel is a good thing. In a few weeks, more or less, the steel and rhubarb mixture may be left off, and fifteen drops of the solution of perchloride of iron given after each meal in a wineglass of water.

GALLIC ACID IN ALBUMINURIA FOLLOWING SCARLATINA.

(*The American Practitioner*, August, 1875).—Dr. J. T. Jameson reports two cases of albuminuria occurring as a sequel of scarlet fever, and in which he employed gallic acid with marked success. In one case, a child æt. 6 years, caught cold during convalescence, and a day or two after the face became œdematous; there was pain in the head, and slight fever; the urine was quite bloody, and on testing in the usual manner presented considerable coagulation. The patient was put upon a saturated solution of gallic acid, a teaspoonful every two hours. In seven days the urine was free from albumen and copious in quantity, and the child seemed well, with the exception of debility, for which the muriated tincture of iron was prescribed. About ten days after this, in consequence of fresh exposure to cold, there was a slight relapse, the urine becoming again bloody and the face puffed; but on resuming the gallic acid for a few days these symptoms speedily subsided, and the recovery became permanent. In this case the gallic acid was administered unaccompanied by any other medicine, except an occasional dose of castor oil to regulate the action of the bowels.

MISCELLANY.

American Dentistry in 1796.—The following is a copy of an advertisement issued in 1796 by one Josiah Flagg, surgeon dentist, who

"Informs the public that he practices in all the branches with improvements, [*i. e.*] Transplants both live and dead Teeth with great convenience, and gives less pain than heretofore practiced in Europe or America:.....Sews up Hare Lips:.....Cures Ulcers:.....Extracts Teeth and stumps or roots with ease:.....Re-instates Teeth and gums that are much depreciated by nature, carelessness, acids or corroding medicine: .....Fastens those Teeth that are loose (unless wasted at the roots): regulates Teeth from their first cutting to prevent fevers and pain in children: assists nature in the extension of the jaws, for the beautiful arrangement of the second Set, and preserves them in their natural whiteness entirely free from all scorbutic complaints. And when thus put in order and his directions followed (which are simple), he engages that the further care of a *Dentist* will be wholly unnecessary:.....Eases pain in the teeth without drawing:.....Stops bleeding in the gums, jaws, or arteries: .....Lines and plums Teeth with virgin Gold Foil or Leads: .....Fixes *gold Roofs and Palates* and artificial Teeth of any quality, without injury to and independent of the natural ones, greatly assisting the pronunciation and

the swallow when injured by natural or other defects. A room for the practice with every accommodation at his house, where may be had Dentifrices, Tinctures, Teeth and Gum Brushes, Mastics, &c., warranted approved and adapted to the various ages and circumstances: ..... also Chew-sticks, particularly useful in cleansing the fore Teeth and preserving a natural and beautiful whiteness: which Medicine and Chew-sticks are to be sold wholesale and retail, that they may be more extensively useful.

"*** Dr. Flagg has a method to furnish those Ladies and gentlemen or children with Artificial Teeth, Gold Gums, Roofs, or Palates, that are at a distance and cannot attend him personally.

Cash Given

for Handsome and Healthy Live Teeth
at No. 47, Newbury-Street, Boston (1796)."

The document is ornamented in one corner by very formidable and antiquated instruments, while in the other are to be seen tooth-brushes quite of the modern pattern. It has been preserved by a descendant of one who, as may be seen on the back, purchased a brush and tincture from Josiah Flagg in the year 1800.—*Boston Medical and Surgical Journal.*

BURNS AND SCALDS.

Dr. J. Morris, in the *Sanitarian* (December number), makes some very useful remarks on burns and scalds and their treatment. He characterises the old method of treatment with carron oil as crude and useless. In Dr. Morris's opinion it is not so important to consider the mere local treatment as the general management of the sufferer at the time of the accident. For burns of the extremities, Dr. Morris says, no immediate application is so serviceable to relieve pain as hot or cold water, and, strange to say, they act equally well. The cold bath, as practised by Hebra, is best, if appliances are at hand. Carbolic acid has been much commended as a local anæsthetic. Possibly a solution of it in water, in combination with morphia, might act still better. All earthy applications, such as chalk, calaminaria, &c., should be avoided, as being not only therapeutically inert, but also antagonistic to the process of restoration. Local stimulation, such as the application of turpentine, or a solution of nitrate of silver, as practised at St. Bartholomew's Hospital, may be proper treatment in the second stage of burns.

Dr. Morris sums up as follows the chief suggestions he makes in the course of his paper:—

First. Remove the clothing by cutting it from the body.

Second. Wrap the patient in blankets.

Third. If pain be excessive, administer chloroform, ether, or large doses of opium, and let the necessary dressing be made while the patient is in a state of partial or total insensibility.

Fourth. Produce anæthesia of burned or scalded parts by the application of a solution of carbolic acid and morphia. (This solution can be made in almond or olive oil.)

Fifth. After this, wrap the patient in masses of cotton batting.

Sixth. Avoid brandy, and give coffee as a stimulant.

We have no doubt that it these simple rules are only followed, much suffering may be relieved, and many lives saved that would otherwise be lost through the ignorance and mismanagement of attendants. —*The Doctor.*

LARGE DOSES OF BROMIDE OF POTASSIUM IN THE TREATMENT OF EPILEPSY.

Very favorable results are reported from the use of this drug by Dr. Otto, who relates a series of thirty three severe cases of epilepsy. Most of them had seizures daily, or oftener, and twenty-nine had also some form of mental disorder. In fourteen patients the attacks ceased from the day the medicine was given, and in most of them did not recur for eight months. In seventeen patients the attacks became less frequent, ceasing entirely in three of them when larger doses were given. In the rest the attacks were less frequent, intervals of six months occurring. One patient died six weeks after beginning treatment; in two, attacks recurred after the remedy was left off. The mental condition of all was much improved. Of the whole number four remained free from attacks, even after the medicine was stopped. Most of the patients easily bore 185 grains daily, and our author advises against exceeding 230 grains. In recent cases he gives about 150 grains daily, divided into four doses, adding a little opium if it produces diarrhœ. The long continuance of this quantity, however, or a gradually increased dose, produced disturbance in the sensorium and motor paralyses, from which, however, the patients recovered completely when the remedy was discontinued. When used for two or three weeks skin lesions were always manifested, comprising acne, pustules resembling furuncles, and ultimately quite an extensive superficial ulceration of the skin. These, then, and the nervous lesions are the indications for discontinuing or diminishing the doses, for the disturbances of the alimentary canal can be overcome by giving it in sufficiently diluted solutions. The author considers the bromide the efficient ingredient of the salt, as bromide of sodium and hydrobromic acid acted in the same way, while other potash preparations were without influence upon the disease. He believes that it acts by removing the irritability of the central ganglia and the peripheral nerves, and so averts the seizures.—*Archiv for Psychiatrie. Memorabilien,* April 8. 1875.

PURPURA HEMORRHAGICA TREATED BY HYPODERMIC INJECTION OF ERGOTINE.

Dr. Andrew K. Minich relates an interesting case of dangerous purpura hemorrhagica, occurring pretty suddenly in a child seven years old, who had previously been healthy. The case was treated successfuly with hypodermic injections of ergotine. When the patient was first seen the condition was quite

alarming: blood was issuing freely from nearly all the mucous orifices of the body, and there was bloody vomiting and profuse epistaxis; the parotid glands were infiltrated and swollen with blood, while large purple ecchymoses appeared underneath the skin. A grain of ergotine was injected hypodermically, and repeated twice within 24 hours, with the effect of completely arresting the hemorrhage, and in a few days the child was perfectly well.

The pathology of this malady is somewhat uncertain. Some have been disposed to attribute it to fatty degeneration of the capillary vessels. But the prompt action of ergot upon the affection, whatever its nature may be, could scarcely be explained on the above supposition. Minich suggests *raso-motor paralysis*. Ergot produces *raso-morto spasm*; thus "we have explained to us somewhat satisfactorily how it is that ergot will cure this affection."—*Phila. Med. Times*, May 9th, 1875

THE USE OF COLD IN SCARLATINA.

In the *Lancet*, September 4th, Dr. J. T. Eddison says, quoting several cases showing the value of cold in the disease:—

All sorts of objections have been, and still are, urged against the use of cold in scarlet fever. Danger is said to arise from "driving in the rash," from internal congestion, from the rapid loss of body temperature and consequent depression, and it is also said that the risk of renal mischief is thereby increased. If it were proved that the occurrence of nephritis is more frequent after treatment by cold, it would be a very valid objection to the practice of it, and the real truth can only be learned by an examination of a large number of cases. From my own experience I am inclined to disbelieve that any harm results in this way. The fear of the occurrence of nephritis from this cause originates, no doubt, in the generally accepted opinion that the affection of the kidneys so commonly occurring after scarlet fever is due to "draughts," or "catching cold," or leaving the bed too soon. I think this opinion is not founded upon sufficiently good grounds, and that every one in the habit of seeing cases of scarlet fever must often have seen nephritis beginning before, as well as after the patient has left his bed, and as often in cases kept in warm stuffy rooms, as in those in which fresh cool air has been freely admitted to the sick chamber. "Catching cold" is made to do duty as a cause of so many conditions for which we can find no better explanation, that it is adopted at once and without hesitation, in order to account for any otherwise inexplicable phenomena. There appears, at any rate, to be no good ground for assuming that cold bathing increases the chance of an attack of nephritis and in the two cases here reported the urine did not become albuminous after repeated bathing. Objections on the ground of the trouble and increased expense in nursing are scarcely worth consideration, if it is true, as I belive it is, that this mode of treatment is better than any other. The difficulty is perhaps less in treating scarlet fever than in dealing with other cases, because the patients are usually young and easily lifted in and out of the bath, but when from the weight of the patient, or the weakness of the attendants, it is impossible to use the bath, the patient may easily be packed in wet sheets, with or without pieces of ice placed here and there, or india-rubber bags or large bottles filled with ice may be placed around the patient. The bath gives better results than any other plan, when it can be thoroughly carried out, and the most satisfactory way is to begin with the bath at 98° or 100° and cool down gradually to about 70°. It is, of course, better that the temperature of the patient and of the water should be frequently taken, but the hand is generally a good enough guide as to the water, and the appearance of the patient always indicates the improvement in his condition. This is well illustrated in the case of S. F.—— (aged eight) near the end of the fifth day. The little patient was then drowsy and delirious, the temperature being 104°, and three-quarters of an hour in a bath, beginning at 90° and cooled down to 68°, resulted in the cessation of delirium and drowsiness and a reduction of the temperature (in axilla) to 95°. In the case of M. A. S—— (aged four), a similar bath for one hour reduced the temperature from 105·3° to 95·6.° There was no dangerous depression or bad symptom whatever, from this low temperature. In scarlet fever, as in other allied disease, the cardiac impulse, and the character of the heart sounds are safer guides as to the condition the heart and of circulation, than is the pulse at the wrist, the latter being often very deceptive.

BROMIDE OF IRON IN CHOREA,

Professor Da Costa, of Philadelphia, in a recent clinical lecture on this subject (*Medical and Surgical Reporter*) says: "Having now used it for three or four years, my experience, from the treatment of a large number of cases, giving abundant opportunity to witness its good effects, induces me to like it better than any other one article in the treatment of chorea. It should be given in increasing doses, never commencing with less than five grains for a child, and rapidly increasing the dose to twenty. It may be given in plain syrup and water, in the form of a pill, or better, in an effervescing powder. It not only affects the chorea, but also impresses the nervous system as a sedative, quieting it, and giving the patient rest. It is also a valuable agent in treating the incontinence of urine in children. It was in a case of this kind, complicating chorea, that I first observed its value; being surprised and pleased to see that, as the symptom which led to its administration improved, the chorea also diminished and soon disappeared. Since then I have used it almost continuously. Local chorea, or clonic muscular spasm, such as twitching the eyelids, etc., in hysterical women, are sometimes cured by this drug after the failure of other remedies. In answer to the question whether it is the bromide

the iron that benefits, I think it is the combination; that neither *alone* accomplishes the result: for you will find it to benefit cases that have previously taken iron without improvement; and as regards the other bromides, we certainly cannot claim for them any especial value in chorea, as they frequently disappoint.

The remedy occasionally fails, as all remedies sometimes do in this obstinate affection, but it certainly is one of the most valuable agents we possess for the treatment of chorea." *New Remedies, July*, 1875.

LIQUOR FERRI PERCHLORIDI IN CANCEROUS ULCERATION OF THE UTERUS.

Dr. Gibb (*British Medical Journal*) states that he was induced to employ the solution of the perchloride of iron in such cases from observing its beneficial action in an obstinate case of hemorrhage arising from enlarged vascular granulations in the uterine cavity. He gives the history of four cases in which the application of the solution was more or less useful, but he draws a distinction as to the chances of success between the cases where the cancer is hard and embraces the whole of the uterus, and those where the disease is epitheliomatous, spreading over the vagina, and throwing out toward the surface exuberant vascular fungoid granulations.

In the latter Dr. Gibb thinks that the application of cotton-wool soaked in the solution of iron clears away the greater part of the diseased growth, allows reparative efforts to be made by the comparatively healthy structures underneath, and hastens cicatrization. When the disease is purely epithelial and chronic and rodent in character, and confined to the surface, the treatment described has done most good, and appears to Dr. Gibb to cure even bad cases.

The application rarely causes pain, except where the solution has accidently flowed over the adjacent parts, which have been thereby blistered and painfully excoriated. He therefore takes care to limit the application to the diseased part alone. He has always used the strongest pharmacopœial solution undiluted, as he wishes to secure a caustic action. At first he applied it on a piece of sponge or lint, but finally he found cotton-wool to answer best, as this sucks up any quantity that may be required, parts with it easily, and can be moulded into any form, so as to fill a cavity or cover over and adhere to any growth.

THE EXTERNAL USE OF TINCTURE OF IRON.

In the *British Medical Journal*, Dr. A. C. Foster writes:—

In simple cutaneous erysipelas, and also in the milder phlegmonous variety, this agent possesses the decidedly specific effect of subduing, almost at once, the morbid action. I have applied it in numerous instances, and always with the most satisfactory results. So far as my experience goes, it is, in these cases, incomparably the best remedy ever used. It seldom happens that more than one painting of the same spot is required, and, having applied it, no other external agent whatever is needed. In scrofulous swellings of the neck its discutient properties are far superior to those of iodine; and where a puerperal breast or inguinal gland in the male has threatened to end in suppuration, the early use of the tincture, every other day or so, with a camel's hair brush, has been sufficient to effect resolution, while in similar cases we find frequently that leeches, poultices, and evaporating lotions fail to prevent the formation of matter. Again, the remedy may be applied most advantageously in acute rheumatism, where any particular joint is especially swollen and painful, and also to the inflamed surface surrounding an unhealthy ulcer, or along the course of the absorbents when irritated by a recent, ill-conditioned wound. The well-known remedy, ink, as a domestic application in ringworm, has long enjoyed a not altogether undeserved popularity, its curative effect being undoubtedly due to its ferruginous ingredient.

DIARRHŒA MIXTURE.

℞ Olei ricini, ℥ xxiv;
Sp. chloroformi, ℥ iss;
Sol. morphiæ mur., ℥ i;
Pulv. gum. acaciæ, ℥ iiss;
Syrupi, ℥ ss;
Aquæ, ad ℥ iv.—M.

A dessertspoonful every hour and a half until the bowels are quieted.

PURGATIVE IN DYSPEPSIA ACCOMPANIED BY CONSTIPATION.

℞ Mass. hydrarg.,
Ext. colocynth. comp., *aa* gr. xxx.
Pulv. ipecac., gr. iii.—M.

Ft. in pil. no. xii.

Two of these are to be taken every second or third night, and followed by a Seidlitz powder the next morning.

CHLORAL SUPPOSITORIES.

The production of a chloral suppository containing a sufficient proportion of this drug to cause sleep has heretofore been deemed impossible. M. H. Mayet, pharmacien, of Paris, has, however, devised the following formula, by which he manages to get forty-five grains of chloral in each suppository:

℞ Ol. theobromæ, gr. xxx;
Cetacei,
Pulv. chloral., *aa* gr. xlv.

For one suppository.

These suppositories are of good consistence, and may be easily put into use.

RESPIRATORY PERCUSSION.

In the last number of the *American Journal of the Medical Sciences* Dr. J. M. Da Costa describes a method of physical examination of the chest, by means of which he claims that the diagnosis of pulmonary affections may often be greatly facilitated. By respiratory percussion is meant percussion after a full inspiration or a full expiration, the breath being suspended for the moment while the examination is being made. For the sake of furnishing a standard for comparison between health and disease, a description is given of the sounds produced by respiratory percussion in the normal subject. The general effect of percussion after a full inspiration is to increase the resonance and the volume of sound, and to raise the pitch. Percussion after expiration appears to be of less practical importance, though it occasionally affords valuable information. Its effect is to diminish the resonance and lower the pitch.

The practical application of the respiratory method of percussion would appear to have a very wide range. In all chest affections, where percussion is used, the modification may be employed with advantage. It often serves to clear up a diagnosis where the ordinary physical examination leaves the case doubtful, or where the usual signs tend to mislead. Thus, in bronchitis an abundant accumulation of secretion in the air-passages may obscure the breath sounds, and even give rise to a certain degree of dulness on percussion. But if the suspected region is percussed while the breath is held, after a full inspiration, the percussion-note again becomes clear, and the doubt is removed. On the other hand, should the dulness remain unchanged after inspiration, we may infer that the pulmonary tissue has suffered damage. In acute lobar pneumonia respiratory percussion may reveal commencing resolution before any crepitation has appeared, and thus become available with respect to prognosis. In certain cases of organic heart disease, where the symptoms lead to a suspicion of tubercular complication, this method of percussion, by causing the local congestion in the lungs to disappear, will greatly assist in the diagnosis. In pleurisy, with effusion, where the fluid is at the lower part of the lung, and some doubt exists as to whether it may not be a case of chronic pneumonia, by means of respiratory percussion the diagnosis may be rendered perfectly certain. If after a forced inspiration the percussion develops a sharply defined line between the region of dullness below and that of resonance above, it is an effusion; while if the dullness changes in part, or remains unchanged without being well-defined, we may be sure that the lung is consolidated. Again, in those cases where in connection with an effusion in the pleura we get a blowing respiration at the back, with dulness on ordinary percussion, and it is a question whether pneumonia co-exists with the pleurisy, a full inspiration expands the lung tissue, if it be simply compressed or condensed, and the percussion sound becomes clear and resonant.

Obviously in phthisis, too, respiratory percussion may be made of great service in determining the existence of a deposit that is very slight in amount, or in ascertaining the degree of progress of the disease, by magnifying, as it were, the ordinary percussion signs, and by enabling us more accurately to define the limits of the disease. If both lungs are about equally affected, the presence of deposit will be denoted by the fact that respiratory percussion does not give an increased, but rather a diminished resonance, and after a forced expiration the dulness will be markedly increased. In the case of cavities the effect of a full inspiration upon the percussion sound is to change the tympanitic, cracked pot or amphoric notes to simple dulness, together with a higher pitch and feeling of greater resistance.

In pneumothorax respiratory percussion may be made available, it is claimed, to ascertain whether perforation between the lung and pleural cavity still remains pervious or not. If a full inspiration increases the resonance, the former is probably true; while, if the resonance remains unchanged after inspiration, the aperture has closed. This, however, is not stated with complete certainty, and the necessity for further investigation is admitted. In emphysema the vesiculo-tympanitic note elicited by ordinary percussion is either not at all changed after forced inspiration, or but very slightly so in case the emphysema is not marked.

TREATMENT OF SPASMODIC ASTHMA BY THE SUBCUTANEOUS INJECTION OF MORPHIA.

J. Keith Anderson, M.D., writes to the November number of *The Practitioner* as follows regarding the use hypodermically of morphia for the relief of asthmatic spasms:—"Some six months ago, in a case of spasmodic asthma of long standing, in which the usual antispasmodic and depressant remedies had proved unreliable, I ventured to make trial of the subcutaneous injection of morphia. The results were so extremely satisfactory, that I have applied the same treatment to the cases which have since then come under my care. The plan is so simple and so obvious, that I cannot but think that it must have occurred to others besides myself. Having, however, found no mention of it in the text-books or elsewhere, I am emboldened to present it to the consideration of the profession.

"I have now used the treatment on twelve occasions, and the result in all cases has been a complete and perfect relief from the embarrassment of the respiration. The rapidity with which the distressing symptoms are controlled is very striking. In from five to ten minutes after the injection has been administered, the patient finds himself well, *per saltum*. There is no perceptible interval between the agony of breathlessness of one moment and the perfect calm and rest of the next. I have seen a man who had been laboring to speak—jerking out his words syllable by syllable—suddenly rise to his feet, and, with easy and unembarrassed respiration, finish his remarks in an uninterrupted flow. So soon as the

morphia gets fairly into the current of the circulation, that moment the spasm is relaxed, and the patient is at peace, with nothing but his exhaustion to testify to the sufferings he has undergone.

"The dose which I have used has been in all cases one-sixth of a grain of the hydrochlorate of morphia in a strong solution. In no instance has its use been followed by any more unpleasant result than slight nausea. This effect has not occurred on more than one or two occasions, from which I infer that the relaxation of spasm is by no means dependent on its production.

"In no attack has there been any tendency to the recurrence of breathlessness after the first effects of the morphia have passed off. I have even been inclined to believe that its use has been succeeded by an unusually long immunity from further attacks.

"I may add that those who have once experienced the rapid and unfailing relief of the subcutaneous injection are no longer content to await the action of the more uncertain remedies to which they had formerly been accustomed to resort."

HOW TO STRAP THE BREAST.

Strapping the mammary gland is of avail to prevent and arrest lactation. But, remarks Dr. W. W. Munson, in the New York *Medical Journal*, strapping will be of no use unless it is well done. Let the first strip be put on so as to hold the breast well up by itself alone, whichever direction it is made to take. I usually commence by placing a strip laterally beneath the breast, about half-way between the nipple and lower margin, draw the gland well up, and attach one end high up on the sternum and the other end high up under the arm. The next strip is placed at right angles to the first, close to the nipple. Apply to breast first, draw it well up and fasten upper end, letting it pass over the shoulder, then draw down lower end firmly and fasten it. Don't skip the nipple or cover it, but cut holes through the strips that pass over it, and let it project through. This is to allow the milk which may ooze out for the first few hours to escape, without burrowing beneath the plaster, pushing it off, and making a hot, disagreeable, irritating poultice. Several thicknesses of soft cloth should be placed over the nipple (when pervious), to absorb the milk that escapes. This should be renewed as often as it becomes saturated.

A timely application of this plan of strapping I have found almost sure to arrest commencing mammary abscess.

DIGITALIS IN BRONCHITIS.

D. J. Braithwaite (*British Medical Journal*) strongly recommends the use of digitalis in the treatment of bronchitis accompanied by debility. This form of bronchitis is most frequent in persons past the meridian of life. If neglected, the patient soon presents the following symptoms: perspiring skin, poor, quick pulse, urgent dyspnœa, bluish tinge of lips and skin, respiration accompanied by loud wheezing sounds.

These cases, so common during the winter, are most successfuly treated by the free administration of digitalis, alone or combined with compound spirit of ammonia. In these cases the heart is at fault, the right ventricle being gorged with blood which it is unable to propel through the lungs. Ten minims of tincture of digitalis may be given every two hours. It will be found that the pulse becomes full and slow, the breathing relieved, as soon as the digitalis has had time to act. Good support of all kinds is given to the patient. The doctor recommends that the effects of the drug be carefully watched and the dose increased or diminished as indications require.—*Detroit Medical Review.*

DR. CHEYNE AND DR. WINTER IN BATH, FIFTY YEARS AGO.

At the time Dr. Cheyne and Dr. Winter were the two principal physicians at Bath, they adopted very opposite modes of practice; but the former gave some credence to his prescription of milk-diet by making it the principal article of his own sustenance. On this occasion Winter wrote him the following stanzas:

"Tell me from whom, fat-headed Scot,
Thou didst thy system learn:
From Hippocrates thou hast it not,
Nor Celsus, nor Pitcairn.
Suppose we own that milk is good,
And say the same of grass—
The one for babes and calves is food,
The other for an ass.
Doctor, one new prescription try
(A friend's advice forgive,)
Eat grass, reduce thyself, and die,
Thy patients then may live.'

Dr. Cheyne's answer:

"My system, Doctor, is all my own,
No teacher I pretend:
My blunders hurt myself alone,
But yours your dearest friend.
Were you to milk and straw confined,
Thrice happy might you be;
Perhaps you might regain your mind,
And from your wit get free.
I can't your kind prescription try,
But heartily forgive:
'Tis natural you should bid me die
That you yourself may live."

TREATMENT OF ALOPECIA BY ELECTRICITY.

Dr. Waldenstrom has attempted to remedy the loss of hair from the scalp by this means. He applied in one case one of the poles to the superior ganglion of the great sympathetic, and the other upon that portion of the scalp from which the hair had fallen. At the end of six weeks the hair was replaced. Another patient treated in the same manner showed a not less favourable result at the end of two months of electrization. In spite of this double success, Dr. W. does not feel authorized to extol the remedy without further trial. He only states his belief that the treatment is a promising one, and hopes it may have a thorough examination.—*Medical Times.*

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WESTERN HOSPITAL, MONTREAL.

The quarterly meeting of the governors of the Western Hospital was held in the Mechanics' Hall, on the 1st February, Major H. Mills, the President, being in the Chair, supported by the Vice-Presidents, William Workman, Esq., and Hugh McLennan, Esq. There was a good attendance of the Governors. The Secretary, Mr. James Coristine, informed the meeting that communication had been had with Mr. Robert Hamilton, of Quebec, from whom the Corporation of the Western Hospital had purchased their property, with a view to his freeing entirely one-half of the property, and placing his mortgage upon the other half. This was done so that Major Mills might be able to, at once, proceed with the erection of his building on ground entirely free from debt. Mr. Hamilton, he stated, at once expressed his willingness to accede to this request, as soon as a mortgage on the whole property, which was due, was liquidated, provided, in addition to the mortgage which he would have on the remaining portion of the Hospital, several of the governors would give their personal guarantee. He was happy to state that all the conditions had been fulfilled, the day previous the mortgage due, with interest to date, had been paid. Mr. William Workman, Mr. Hugh McLennan and himself had given their personal guarantee that the balance due on the land purchase would be paid, and that morning Mr. Hamilton had instructed his agent in Montreal to prepare the necessary papers, releasing the eastern half of the property from any encumbrance whatever.

Mr. James Jack, the Treasurer, submitted his statement. The amount of subscriptions collected to date was $19,522.04, all of which had been expended upon the land, with but a very small exception. He also handed in a statement of the unpaid subscriptions, amounting to a little over $12,00. He considered about $10,000 of this perfectly collectible, the balance were subscriptions whose amounts were to be taken out in services of various kinds, and from those who had since become insolvent. He considered that taking the "hard times" into account, the amount collected was exceedingly gratifying.

Major Mills said that it was owing to the steady and unwearied perseverance of some half-dozen earnest workers that the Western Hospital stood in the very satisfactory condition which had just been detailed to them; on his part, he begged to assure the Governors that he hoped to proceed at once with the erection of his building.

Mr. Wm. Workman said he firmly believed in the necessity of this Hospital, which, from its magnificent position and surroundings, and nearness to the large manufacturing districts, would do a large amount of good. There were many, he knew, who ridiculed the idea of the Western Hospital ever being a success, but he was satisfied that they would have a different opinion after looking at the financial statement which had been submitted by the Treasurer. He was well satisfied that friends would crowd around us and that abundant subscriptions would be forthcoming, just as soon as ever the walls of Major Mill's building would commence to appear.

Mr. Hugh McLennan stated that he felt convinced that any little antagonism, which might apparently have manifested itself by the friends of the General Hospital, against the Western, would soon disappear—for they had both the same noble object in view—the relief of human suffering; and, as to the necessity of the new intitution, he had no doubt whatever in his mind.

Dr. F. W. Campbell said it was an old maxim that history repeats itself, and the opposition to the Western Hospital in Montreal, by some of the friends of the Montreal General Hospital, was only what had occured in several cities which he could name when the extension of Hospital accomodation was wanted. He named, among other cities, Glasgow, in Scotland, where the old Royal Infirmary, had manifested for several years the strogest opposition to the erection of a new Western Infirmary in that city—but it necessity being manifest, its friends persvered and in October, 1874, he had the pleasure of going through the Glasgow Western Infirmary, which two days later, was opened for the reception of patients. These two institutions strongly antagonestic year and a-half ago are to day working harmoniously, guided by different organizations. And so he believed it would be here. It was impossible that an institution like the General Hospital, that, for fifty years had performed such a noble work, could continue to oppose the new Hospital, and he firmly believed that the days of obstruction were passed, and that a bright future was before the Western Hospital.

Mr. M. C. Mullarky, said he felt deeply interested in the movement. He thought that those whom Providence had blessed with worldly goods were bound to devote some of it to relieve the suffering of their fellow-creatures. He sat down by asking the Treasurer to put him down for another subscription equal to what he had already paid.

Mr. C. P. Davidson was present, and gave information as to the legal business, which he had conducted for the Corporation the day previous.

Previous to the adjournment, Major Mills, intimated his intention of having his plans for building prepared at once, and submitting them to the Officers of the Institution.

Mr. A. C. Hutchison is acting as the architect.

THE MORTALITY OF MONTREAL.

Our readers do not need to be told that Montreal is an unhealthy city; that everybody, the world over, unfortunately knows too well, but perhaps they may or do not know the depth of our degradation. We do not know how very far down we are in the mud. We are indeed *almost* in despair, nay not *almost*, *we are indeed in despair*, that anything ever will be done to lift us up in the scale to anything even approaching respectability; we hesitate to say what position we occupy, comparing our mortality with other cities, for it is disgraceful, with all the healthiness of our position, that we should be so very near the bottom of the list. Few cities of the old world, with their crowding and their filth, show such a ratio as we do, and we believe that on this American continent we have the disgraceful honor of having the largest death-rate. The total mortality for the year 1875 was 6,311. Seven hundred and eighty-four were from small pox, and, as regards nationality, 653 were French Canadians, 103 British Canadians, 2 *Irish*, 4 *English and* 4 *Scotch, and* 18 *were divided among other nationalities.* Is it not shameful that so many of our French Canadian fellow-citizens should be slaughtered by the neglect of vaccination, for there is not the shadow of a doubt but that it is to this neglect that so large a mortality is due. Its opponents hold doggedly to their anti-vaccination views, and the injury they have done and are doing is incalculable. Perhaps in the future there may be a change, but we despair.

SIR GEO. D. GIBB, BART.

As we go to press we learn that this distinguished Canadian and old Montrealer, is in a condition of health as to cause his friends great uneasiness. We hope for the best but fear the worst from what we hear.

PERSONAL.

Dr. Buller, M.R.C.S.E., late Resident Surgeon Royal London Ophthalmic Hospital, has located himself in Montreal, with the intention of practising as an oculist and aurist.

Dr. Proudfoot, who has practised in Montreal for the past three years, with the most marked success, as an oculist and aurist, has been appointed ophthalmic and aural surgeon to the Montreal Dispensary.

REVIEW.

Physicians Visiting List for 1876. Philadelphia, Lindsay & Blakiston: Montreal, Dawson Brothers.

We have used this list for the past twelve years, and have found it more than convenient—in fact, indispensible. We urge its employment by our readers. It is arranged for twenty-five, fifty, and one hundred patients a week.

Chemia Coartata; or Key to Modern Chemistry. By A. H. KOLLMYER, A.M., M.D., Professor of Materia Medica and Therapeutics at the University of Bishop's College, Professor of Materia Medica and Pharmacy at the Montreal College of Pharmacy, and late Professor of Chemistry, &c. Printed and published by J. Starke & Co., 54 St. François Xavier Street, Montreal.

This little work, concisely compiled, admirably arranged, and beautifully published, has been sent us by its author, and we confess that its perusal has been a source of real enjoyment to us, for, with comparative ease, we have been able to refresh our minds upon a subject which constant occupation had rendered somewhat rusty. The preface tells us that the main object of the author has been to compress into as small a space as possible everything connected with the study that deserves attention, and to give no more explanatory matter than is actually required to render each subject perfectly intelligible, and in this aim we think he has succeeded. We strongly recommend it to all students, and also to those who may wish to revive their knowledge of chemistry. The following letter, which Dr. Kollmyer has received from Dr. J. Baker Edwards, the well-known chemist, shows the high estimation in which he holds the work:

(*Copy.*)

January 1st, 1876.

MY DEAR SIR,—I have carefully and critically examined and studied your work "*Chemia Coartata*," and have much pleasure in assuring you that I consider it a most valuable addition to our list of Chemical text books, and a useful work of refer-

ence in the medical library. Its excellent arrangement, conciseness and completeness, testify to the experience and skill of the author, while its typographical execution and finish reflect credit on the publisher.

I consider it supplies a long-felt want in our medical literature, and I shall have great pleasure in recommending it to the medical and pharmaceutical classes under my instruction.

I am, yours very truly,
J. B. EDWARDS, Ph.D., D.C.L.,
Professor of Chemistry and
Government Analyst,
Montreal.

To Professor A. H. Kollmyer.

Lectures on Skin Disease, delivered at St. Vincent's Hospital. By E. D. MAPOTHER, M. D., Professor in the Royal College of Surgeons of Ireland. With Illustrations. Second Edition. Dublin: Fannin & Co.

We have to thank our esteemed friend, Dr. Mapother, for sending to us through the post a copy of the volume the title of which heads this notice. The lectures originally appeared in the Dublin *Medical Press and Circular*, and then gave much satisfaction to a large number of readers; indeed the demand for their re-publication in book form emanated from those who thus perused them, and who deemed them well worthy of being preserved in a more permanent form. We can, after a careful perusal, endorse this opinion, for we have enjoyed the reading of the various lectures exceedingly, and consider that a fund of very practical and, therefore, very valuable information is to be obtained from them. Not only is the treatment of skin affection most concisely given —but the various pathological conditions which underlie these lesions are described, and that this condition must be clearly comprehended before a scientific treatment can be adopted seems, to our mind, perfectly clear. There are many to whom a perusal of this volume would be interesting and useful, and we have no doubt it can be obtained by addressing Fannin & Co., Dublin, or through any respectable book store in the Dominion.

Dr. H. Lenox Hodges' Note Book for Cases of Ovarian Tumors and other abdominal enlargements. Philadelphia: LINDSAY & BLAKISTON, 1875.

This note book is in some respects more complete than that of Spencer Wells, but fails in not drawing attention to the progressive symptoms, a lack which we hope will be remedied in future editions, as the present one is sure to be exhausted in a short time.

The spaces allotted to each head of Date, Pulse, Temperature, and Respiration is very much more than what is required, and leaves too small a part of the page for the observation of Symptoms, Remedies and History.

The book is well gotten up, and printed in large clear type, but would have presented a more elegant appearance had it been printed upon tinted paper.

To those engaged in gynæcological work, no note book can more fully supply suggestions and data for enabling them to arrive at a correct diagnosis and appreciation of the case in hand.

We cordially commend it. It can be ordered through the Messrs. Dawson Bros., of Montreal.

Pulmonary Tuberculosis, its Pathology, Nature, Symptoms, Diagnosis, Prognosis, Causes, Hygiene and Medical Treatment. By ADDISON P. DUTCHER, M.D., late Professor of the Principles and Practice of Medicine, in the Cleveland Charity Hospital Medical College, Ohio. Philadelphia: J. B. LIPPINCOTT & Co. Montreal: DAWSON BROS., 1875.

This work is fully up to the medical knowledge of the day, and is written in a pleasing and attractive style. There are many subjects having a decided bearing upon the causes of this most appaling disease that have been handled with skill and ability by the able author of this work. The author has not feared to advance new views, nor yet to glean facts from the best authors extant, so long as he could accomplish the one object of his labors, viz., to impress upon the mind established truths, and awaken an interest in the diagnosis and treatment of consumption.

To properly appreciate the work it must be carefully read, and we can confidently recommend it to our readers as the very best work they can resort to for a thorough acquaintance with the subject.

The author dwells with emphasis upon the value of "Thompson's gingival line," as aid in the diagnosis of tubercular phthisis from some forms of bronchitis, also upon the value of the microscope in deciding important and doubtful cases. The chapter upon the Mind, and also that upon Alcoholic Liquor, which closes the work, are such as are likely to commend themselves to the physicians and the general well-wishers of our race.

Original Communications.

Removal of a Lymphoma from the right side of the neck. By WILLIAM E. BESSEY, M.D., C.M. Read before the Medico-Chirurgical Society of Montreal, January 28th, 1876.

This tumour had existed for a period of about sixteen years, gradually increasing in size, and at times becoming considerably swollen, thus causing great inconvenience by the sensations of pain in head, ringing in ear, and aching in arm of that side, with a feeling of tightness about the throat. By its prominence it was an object of frequent remark, and the deformity it created, together with the apprehension of an increase in its size, led the patient to determine upon having it removed.

It occupied the superior portion of the right posterior triangular space, and projected into the superior carotid triangle lying upon the sterno-mastoid, and covering the chain of lymphatic glands, which run along the posterior border of this muscle, (it proving to be made up of three of these glands hypertrophied,) and was covered in by the fibres of the platysma-myoides spread out to an aponeurosis. Its long axis was in a line with the fibres of the sterno-mastoid, and was crossed above by the posterior auricular, and a superficial cervical branch. The external jugular vein lay in immediate contact with it underneath, being in a sort of niche on its under surface, its fundus dipping down well into the superior carotid triangle. Its length was about six inches, its breadth about four inches, and it was very moveable, by which means its relative position could be somewhat improved.

The patient was a stout-built florid Frenchman, about forty years of age, who had seen much active military service, and who, being fond of playing at sparring, may have received blows upon the glands of the neck, giving rise to inflammation in their structure and consequent enlargement.

Having chloroformed the patient, I made a free incision along the posterior aspect of the body, and, getting at it from behind, I proceeded to enucleate it slowly. The adhesions to the surrounding structure were very extensive, and the small blood vessels feeding it numerous. No vessel sufficiently large to require ligatures was met with. By proceeding cautiously, examining each mass of adhesions before severing and working with the fingers—in which I was kindly assisted by Dr. Hingston, I succeeded in

loosening it, step by step, from the neighbouring glands, the subjacent muscle, the external jugular vein over which it lay in direct contact, and finally succeeded in removing it from its adhesions in the superior carotid space without any injury or accident occuring to any important part or blood-vessel in the neighbourhood; thirty minutes were thus occupied in its removal without any untoward circumstance occurring to complicate the operation.

The parts having been approximated, simple water-dressings completed the treatment, and an excellent recovery followed in a fortnight, with, however, some slight numbness in right hand and arm, which is growing less. Patient is as well as ever, and is now attending actively to business engagements. For account of the pathology of the mass removed I must refer to my friend Dr. Wm. Osler, who kindly made some microscopic

sections of it. I may say, however, that it contained numerous spicula of bony deposits in its structure, showing, no doubt, ossific transformation going on.

General and Histological description of the Tumour. By DR. OSLER.

In size and shape the tumour resembles an adult kidney, presenting a convex side and an irregular concave surface corresponding to the hilus. At this latter situation one or two partially attached lymphatic glands are seen. A tolerably dense capsule encircles the whole, and can easily be peeled off.

One section of the tumour, which has been in alcohol for three weeks, has a greyish-white colour, is firm, elastic, and about the consistence of a lymphatic gland. Several strong fibrous septa dip in from the capsule, but otherwise the surface section is by no means fibrous. Towards the centre, at a point near the hilus, a fibro-cartilaginous and osseous change has taken place, and a few other spots of a similar character, but smaller, may be noticed over the sections; with the naked eye a pitted or alveolar appearance may be observed in the sections. This alveolar character, it may be remarked, is also very well seen in sections of the cortical portions of lymphatic glands. Microscopically the tumour proves to be one of considerable interest, being an adenoid tumour of the cervical lymph glands, a lymphoma or, as some call it, a local lymphadenoma. Sections show a finely reticulated fibrous meshwork in the interspaces of which are numerous lymph cells, the structure in fact of a lymphatic gland with which indeed these growths are strictly homologous. The proportion of cellular elements to the matrix varies in the different parts of the tumour; the former being more abundant in the superficial, the latter in the central regions. The corpuscles are very well seen in prepared specimens, and in places the fibrous net work is also visible. It may be looked upon as a simple hypertrophy, a hyperplasia of the elements of the lymphatic glands, the proportion between the fibrous and cellular elements remaining tolerably normal.

This same condition of the lymphatic glands is met with in Hodgkin's disease, in which a general enlargement of these structures takes place throughout the body, and certain growths of a lymphoid character are found in the liver, spleen, and kidneys, forming, in fact, a disease very analagous to leucœmia, but differing from it in the absence of any excess of white blood corpuscles. The specimen under consideration represents a local lymphadenoma, while Hodgkins disease is a general lymphadenoma. This tumour is distinguished on the one hand from simple transitory enlargement of the lymphatic gland by its persistence; and in the other from scrofulous enlargement by the lack of any tendency to undergo the caseous or suppurative process. From the syphilitic enlargement it is characterized by the absence of induration; the fibrous elements do not predominate over the cellular. Other and more important relations are with the sarcomatous tumour of the lymph glands—the lympho-sarcomas. In the early stage many of these are simple enlargements of the glands, sometimes the cervical, more frequently the mediastrical, occasionally the retro-peritoneal. Gradually, as the growth proceeds, the cellular elements increase greatly, the tumour becomes infective and infiltrates the surrounding tissues. These lympho-sarcomas form the great majority of intro-thoracic tumours.

Leeching in the treatment of Cerebro Spinal Meningitis. By WILLIAM E. BESSEY, M.D., C.M. Read before the Medico-Chirurgical Society of Montreal, January 28, 1876.

MR. PRESIDENT AND GENTLEMEN,—My object in the present paper is not to theorise or throw any new light upon the pathogenisis or pathology of this disease, but to add my humble testimony to the value of local depletion in the treatment of it.

My opportunities for observation have been limited to seven well-marked cases. At times I have seen other cases, in which there seemed to be the evidence of spinal meningitis as a complication.

My first case occurred about three years ago, and need not be detailed here, as it was reported at the time and read before the Society.

Suffice it to say that it was a strongly marked case, coming on suddenly and violently without prodromata, marked by strong convulsions, exacerbations. Having an interval of intermission from all the symptoms, during which sensibility returned, food was taken, and there appeared a delusive prospect of a favorable termination. The symptoms returned with increased violence, and death resulted in thirty-six hours. No depletion was used in this case.

I was assisted by Dr. Howard, and every other remedy that suggested itself was given a fair trial. No autopsy could be secured.

Case No. 2.—This was a child fourteen months old, in Point St. Charles. Without any premonition this child was suddenly seized in the morning with convulsions, insensibility, and retraction of head

ith rigidity of the cervical muscles, with opistho-nis. Supposing the case to be one of convulsions om teething, the usual hot baths were brought into quisition, with free administration of bromide of otassium, lancing gums, &c. This had the effect palliating the symptoms to some extent. During ie day petechia and purple spots appeared on the ody, and with an exacerbation of the symptoms the hild passed away, ten hours after the onset of the lness. No autopsy.

Case No. 3.—A boy, eleven years of age, residing 1 St. David's lane, when seen had been ill three ays,—was then in a semi-comatose condition, cry-ng plaintively and complaining of his head; very estless, tossing about on pillow. Cervical muscles, igid, muscles of back affected, resting on heels and ccciput, admitting the hand freely under small of ack, general trismus during exacerbations strongly narked, hyperesthesia very great. Vomiting at nset, pupils contracted, hyperexia giving 102° at irst, after rising to 104°. Very few petechia obser-able.

Began treatment by active purgation. Ice to head nd spine. Bromide of potassium and tinct. hyos-iamus in oft-repeated doses. After discontinued ce, gave mixture of tinct. belladonna, fluid ext. ergot nd liqr. ammon. acet. Applied sinapisms to nape of neck and along spine, rubbed in ointment of belladonna and mercury, sustained strength by beef tea and milk. No amelioration of symptoms took place. Later in the case administered hydrate of chloral with effect of procuring temporary repose. Gave quinine, but like the fluid ext. ergot, mixt. it seemed to aggravate the symptoms. Emaciation became very great; the senses were good throughout, after the first two or three days, and patient continued to keep up an incessant cry for his mother, of "ma," "ma," drawn out into a doleful melancholy strain, sad to listen to. In this case, any excess of drink at one time, excited emesis. By the 20th day the emaciation and prostration were extreme, resembling that of typhoid fever, with partial hemiplegia paralysis of sphincter-ani; stools very offensive, and passing those and urine involuntary. Death occurred on 22nd day. No autopsy.

Having thus had a succession of fatal cases, it set me thinking, and reasoning by inference I came to the conclusion that the symptoms were undoubtedly due to a hyperemic condition of the coverings of the posterior portions of the brain and superior portions of the cord. I had no opportunity of verifying my deductions by actual observations in an autopsy, but determined to use local depletion if another case presented itself. I had not long to wait when I was called upon to attend.

Case No 4.—A fine child, three years of age, in Nazareth Street. When seen it lay in an insensible condition, having had no violent convulsions that morning; head thrown back, some hyperesthesia. No petechia, eyes contracted, twitching of muscles about mouth, hands and feet jerking.

Child had woke in the morning complaining and crying with pain in the head.

Ordered mustard pediluvia. Ordered calomel powders, one gr. every six hours, and leeches to nape of neck over mastoid processes, and to the temples, and to have them repeated every six hours until relief of symptoms or prostration should ensue.

Had the limbs very frequently bathed in hot water. Gave a mixture containing bromide of potassium and tinc. hyosciamus, 5grs. former, ½ drachm latter, every four hours. Had ungt of hydrarg and belladonna applied to spinal region between shoulders, but soon discontinued it, laying little stress upon its value.

To be brief: The symptoms gradually subsided, rigidity of muscles ceased, insensibility disappeared; restlessness ceased, sleep ensued, vomiting was relieved, and by second day consciousness was fully restored. Great weakness now existed. Gave a mixture of tinct. hyos; potas. bromid. and liq. ammon. acet., ordered milk to be given frequently. No evidence of a return of symptoms shewing themselves, the leeches were not repeated. The child was convalescing favorably by sixth day, and made a good recovery, without any sequelæ, and is now alive and hearty. The number of leeches applied was four at a time, after the first time, when six were applied, viz., one to each temple, one behind each ear, and two to nape of neck. During the repetitions they were only applied to the back of neck.

Case No. 5.—My next case was that of a lad, aged 15 years, in Wolfe Street, occurring in July, 1873.

He had been a strong hearty lad up to the time of his attack. There had been no premonitory symptoms. His mother stated that he came home from school at four p.m., and threw himself upon the sofa, crying "Oh, my head, my head!" He was very restless, changing his position frequently, and seemed to them stupid and hard of hearing, and seemed sore when handled. He gradually grew worse during the evening, although every domestic artifice was exhausted without affording relief.

At 10 p.m. I visited him for the first time, and found him lying on the sofa, very restless, and chang-

ing his position every few minutes, crying pitiously of the pain in his head; he was hard of hearing and in a semi-conscious state; at first easily roused he had now become hard to arouse and almost entirely unconscious. There was no decided convulsion in this case. There was a very contracted pupil, pulse 140, head thrown back. Cervical muscle rigid, hyperesthesia a prominent symptom. During paroxysms the limbs are flexed, toes contracted, thumb of one hand contracted. Had him put to bed, and extremities first placed in hot water, the hot mustard pediluvia to be repeated every hour. Ordered calomel, 1 gr. every two hours, leeches to occiput, mastoid processes, temples and over cervical vertebra, to be applied every six hours until symptoms yield. Ordered x gr. doses of potassium bromid every four hours, with liquor ammonia acetat, and tinct. hyos.

Saw him at 6 a.m. Pulse 138. Resting quietly; cries out when handled; pupils becoming dilated. To apply cold to head, and continue repeated application of fresh leeches. Bowels to be opened with a brisk cathartic. The petechia were not numerous. To be brief: I saw him three times each day during the first three days, and noted a steady improvement in him, the leeching being kept up until the pulse had, on the third day, fallen to 108. Consciousness was restored, and a little milk or beef tea in small quantity was well borne. The gums were touched with calomel, when a lotion of potas. chloratis was substituted. He continued to progress favorably until the eighth day, when all the symptoms had disappeared, and the patient, though weak and feeble, was in a fair way to convalescence.

Four applications of leeches, six in number, and once of two, total applied 26, at intervals during first three days.

A profound deafness remained after this case, which required one to shout at the top of one's voice to make him hear—it lasted about six months, yielding finally to leeching and the use of arnica and aconite.

The pyrexia in this case reached 103'15" and 104°. The young man is since quite well.

Case No. 6.—My next case was an infant about fourteen months old, whose parents resided at the time in Anderson Street. It began 17th July, 1874, and continued ten days, ending in recovery.

Here the symptoms were very marked, the rigidity of cervical muscles, oposthotonos, hyperesthesia, petechial rash partaking in spots of a livid hue, as if the child had been maltreated; restlessness, pulse 160; pupils contracted, tongue coated with a dirty brown fur, &c., clearly marked the case as one of cerebro spinal meningitis.

The child was a rather ill-nourished cadaverous-looking being, and I hesitated as to what plan of treatment to adopt, but chose potass. bromid, with liq. ammon. acetatis, for internal administration, and put three leeches on the back of head and neck, three times successively, at intervals of six hours. No faintness ensued from the loss of blood, but a decided amelioration of the symptoms, which encouraged me. I again applied the leeches to the mastoid processes and nape of neck, and continued the treatment until the tenth day, when the symptoms had entirely subsided, and the child made a good recovery. The only sequelæ in this case was the appearance of a crop of boils, which I attributed —whether correctly or incorrectly—to the use of the bromide. Four applications of leeches in this case, three each, three failing to take—nine applied over a period of two days.

Case No. 7.—My last case was a lad aged seven years. When seen he had already been under treatment for about three weeks, and the case had been given up as hopeless (at least, so I was informed).

I found the patient much emaciated, tongue furred in centre, red at tip and edge, pulse 160; cervical muscles rigid, neck stiff, muscular soreness or hyperesthesia very great, eyes bright and shining with a staring look. Child quite conscious, all faculties apparently exalted in acuteness, continually whining and uttering what I believe to be a cry "characteristic" of this affection in its sub-acute form, or where consciousness remains; complained of pain in the head, face pale, great thirst, always calling for drinks.

Ordered leeches to back of ears and neck, four at once, to be replaced every six hours, repeated twice successfully, third time only two taking. Warm sponging over body with spirit bath. Milk alone to be given as food and drink. Bromide of potassium in 5 gr. doses, with tinct. hyosciam. and liq. ammon. acet. Repeated the leeches the sixth time. After the third application the cry ceased, an excessively irritable condition remained, with rigidity of muscles and a peevish fretfulness; lies curled on bed with head retracted still, legs flexed on abdomen. Ordered calomel grs. 1, every six hours, used free inunctions of ungt hydrarg. and belladonna; excessively sensitive to touch. I increased the bromide of potassium to ten grain doses; repeated leeches to head and neck, four were applied successfully; pain complained of in head ceased, muscles became relaxed,

he rigidity passed away ; still continued irritable and eevish to the last; however, this symptom also yield- d finally, and, by the fifteenth day of visitation, the atient appeared free from all symptoms of the omplaint, and began to improve rapidly in general ondition.

No impairment of faculty followed this case, and o skin eruption was observable during its progress.

To conclude, the result of my observations of the iarked effect of leeching upon the symptoms, in elieving them, in each case cited, has been to con- ince me of the great efficacy of judicious local lood-letting in this affection. Dependent. as I be- eve it to be, upon a hyperemic condition of the ieninges for its anatomical lesion.

Not having been so fortunate as to have secured utopsies, and reasoning by inference, I considered he condition of the cervical muscles to point to pinal irritation. The contracted pupil, with sen- itiveness to light, afterwards becoming dilated to yperemia or congestion of the membranes, followed y effusion in the arachnoid sac, or extravasation of lood in the pia mater.

The conditions revealed by autopsies placed on ecord, fully bears me out in the opinion I have ormed of these; however, I will only refer to that f Dr. Bell: he says, "the view of the dura and pia nater were, throughout their entire extent, intensely congested with dark fluid blood. The arachnoid membrane seemed to be more opaque than normal. nd small quantities of pellucid lymph coated the surface of the base of the brain, particularly in the egion of the optic commissure, glueing the fissure nd convolutions together and presenting an irregular granular surface when the parts were torn asunder. The same conditions existed in the parts of the spinal cord examined, and the venous plexus separating he cord from the bony canal was found gorged with blood."

These lesions are very constant, and are found to mark the characteristics of every reported autopsy, to a greater or lesser extent. Hyperemia, or conges- tion of the coverings of the brain and spinal cord, or, in the more violent cases extravasated blood, or effusion in lingering cases, seem to mark the ana- tomical lesions produced. Granting this state of things to exist, there therefore remains, to my mind, no more rational treatment than leeching or cup- ping, calomel and the use of the bromids to prevent cerebral congestion. The danger to be apprehended appears to be death from cerebro spiral irritation, causing convulsions, cerebro spinal apoplexy from extravasation of blood, or general depression of vital function and emaciation, ending in paralysis and death.

I believe the disease to be more hyperemic than specific (although we may see it only in this charac- ter), and hence I look upon local depletion by means of leeches as indispensable in its treatment.

Some have recommended opiates: these I would fear to use, as likely to add to the congestion or hyperemia.

The tinct. hyos. I deem preferable, and conse- quently use it, with liq. ammon. acetatis as a febri- fuge and diaphoretic. The bromide of potassium in full doses will diminish centric irritation and lessen the danger of convulsions, while it is supposed to produce tonic contraction of the blood-vessels in the meninges and the cerebral mass. Hydrate of chloral I like, and would use it as a soothing agent, but not as a curative one, it having no power to relieve con- gestion. Calomel I believe to be useful in this as in inflammations of other serous sacs. The deafness is no doubt due primarily to congestion, but when it becomes permanent it may be due to lesion of nerve tissue or effusion into the mastoid cells or thickening of the covering of the auditory nerve from conges- tion. Dr. Chagnon mentions the occurrence of this lesion in a case in 1870, as complete deafness after convalescence—leeching would probably have relieved it and prevented its becoming permanent.

Quinine is a remedy I should think *contra- indicated* from its proneness to produce, and there- fore add to the deafness and cerebral congestion. This it did for me, aggravating the general symp- toms. Further, the disease does not always appear to occur epidemically, and I think should be divided into the simple and malignant, or specific and non- specific, as it is attended with or without a petechial rash sudamma.

Further, as to the propriety of *local abstractions of blood* in this disease, I may quote Ziemssen, who says, (p. 736, vol. II.,) "local abstractions of blood, even when frequently repeated, produce almost always, and immediately, a very beneficial effect. They are most suitable at the beginning of the exacerbations of inflammation and fever. *The dimi- nution of the intra-cephalic hyperemia is shown by the relief of the headache*, jactitation *and deli- rium*, and by the return to *consciousness*, results always attained in the cases in which I have resorted to *leeching* as a remedy." Ziemssen also quotes Leyden, who favors venesection in such attacks, and maintains, moreover, "that under proper circum-

stances general blood-letting is indicated by the general restlessness of the patient, which renders the application of leeches almost impossible.

Note.—With respect to leeching in infants and young children in this disease,—I would deem it unsafe to apply too many leeches at one time, or to repeat them too frequently; there should be no after fomentations, as after-bleeding in these cases should not be encouraged. Authorities differ as to the amount of blood which a single leech will draw. Christison says, "a single leech, *when applied successfully* (this is difficult to do in children) may be held to draw, from first to last, about *half an ounce* of blood on an average." Evanson and Maunsell give the quantity of blood obtainable by a good leech, "allowed to bleed for half an hour," as "*one ounce*." Pariera thinks *four drachms* the maximum, and does not think on an average, we should estimate it at more than *one drachm and a half*," meaning the quantity drawn by the leech itself, without reference to after-bleeding. Tanner says, "each leech may be calculated as capable of withdrawing from *four* to *six drachms* of blood."

West says: "It is generally estimated that a healthy leech will draw about *two drachms* of blood, and that *if the subsequent bleeding be encouraged*, about as much more will flow afterwards." My own opinion is that an average sized healthy leech will not draw more than *one to two drachms*, or about a teaspoonful and a half at most. A few will be found capable of drawing much more, but I would not use large ones, or, if I did, not so great a number. My plan has been to apply from three to six, according to age—never more than one to each year of the child's age, at one time, and repeat a second, third, fourth, fifth, and older children even a sixth time, if need be, always arresting the bleeding as they fell off. I found symptoms yielding readily to this practice, and no dangerous symptoms following leeching, —which I am *careful* never to carry beyond producing pallor of the face,—and my experience has been that long before this would ensue, or syncope become imminent, the symptoms have been relieved. It must be borne in mind that, in these cases, the determination of blood to the brain and spinal cord, admits of considerable local depletion over these points to restore the balance of circulation. As to what amount of blood-letting can be borne by a child, Tanner says: "During the first six weeks of life, *one ounce* of blood is said to be sufficient to relieve most inflammations. From six weeks to twelve, one ounce and a half to two ounces; from four months to twelve, three or four ounces; and subsequently an additional ounce for each year of the child's age."

Most authors are unfavorable to repeated leechings, and on this point West observes: "It is by far the best and safest course, whenever it is wished to produce a decided influence on the system, such as in the adult we should seek to exert by general depletion, to put on a larger number of leeches *at once;* to remove them *the moment they seem to have produced a decided effect*, and not to allow any bleeding subsequently." Eight leeches applied to a child one year old, will, under these regulations, do much more good, *even* with an actually smaller loss of blood than will follow from half that number applied without such precautions."

This same author thinks a repeated application of leeches justifiable in cerebral congestion, when the symptoms have not been relieved by the first.

The best guide in their application is undoubtedly to *watch the effects*. On this point, Beck remarks: "With regard to the second mode, that of judging of the extent to which it should be carried by the effects produced at the time. In many cases this answers exceedingly well. In inflammatory complaints, where the full effect of the loss of blood may be necessary, the rule can be satisfactorily applied and the best plan is to bleed in the erect posture until pallor of the face comes on, without producing actual syncope." Dr. Churchill lays down another important rule in relation to leeching; it is this: "*That in all cases where they are applied to infants or children, the bleeding should be arrested at once when they fall off.*" By so doing we can estimate exactly the amount of blood lost, and we avoid the great mischief of continued draining. Of course, it will be necessary to apply a *greater number of leeches than usual*, or to repeat them; but that is of no consequence compared with the danger of the ordinary method. *Each leech will abstract from one to two drachms of blood*, and the number must be proportioned to the amount we wish to take away." In favor of the *good effects* of leeching in congestive diseases Dr. Rush says: "I could mention many more instances in which blood-letting has snatched from the grave children under three and four months old, by being used three to five times in the ordinary course of their acute diseases." Dr. Beck says: "The physician who discards this agent (leeching) understands but poorly the profession, or the duty which he owes his patients. The proper use of a remedy, however, is one thing, the abuse of it is another; and I must express the opinion, founded on no small observation, that it is frequently resorted to in children when it is unnecessary—when necessary it is often carried too far—and that, in its general use, there is frequently an absence of precision and care, which, in many cases, renders it a most dangerous remedy." On the other hand, Christison, Ryan and Pareira, mention single isolated cases of death from subsequent bleeding from a leech bite, this, however, should not deter a wise and judicious practitioner from the use of so valuable a remedy. The earlier in the disease they are applied the more manifest is the benefit resulting from them.

I should not expect to arrest the disease in a specific or malignant case by such means, but their use should also prove of signal value when the local lesion is in the spinal meninges alone, as is sometimes the case.

Progress of Medical Science.

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

By Lombe Atthill, M.D., Master of the Hospital; Vice-President of the King and Queens College of Physicians in Ireland.

This hospital was originally established as a lying-in charity, its distinguished founder having two objects in view—one, to provide a "hospital for the relief of poor lying-in women," the other for the instruction "of students in midwifery, who should be allowed to profit" by the experience to be derived from the practice seen within its walls. These two objects, I need hardly say, have been

fully attained. As a school of midwifery, it is still unrivalled by any institution in this kingdom. But its character of later years has been materially modified. Wards for the treatment of those *diseases which are peculiar to women* were added, under the mastership of the late Dr. Collins; and, in point of fact, this institution is, as at present constituted, more justly entitled to be styled THE DUBLIN HOSPITAL FOR WOMEN than THE DUBLIN LYING-IN HOSPITAL, which latter is its legal designation. Gentlemen, in this hospital you have opportunities afforded you of acquiring a knowledge of these important branches of your profession such as it is impossible to over-estimate the value of. I urge you, I earnestly urge you, to avail yourselves of these advantages to the utmost. It has been well observed by a former pupil of this hospital, now a distinguished surgeon—I speak of Dr. Hodges, of Boston, U. S. A.—that "the value of a hospital, in its relation to medical education, turns upon the facilities which it affords, and the extent to which these are improved, by students and teachers;" and he adds, "the clinical study of disease depends for its success upon a personal examination of patients." No one can question the soundness of these views. The facilities afforded to the student in midwifery by this hospital are great indeed; it remains for you to take advantage of them. I do not wish to under-value the good done by our extern maternities, but "in their relation to medical education" they are most imperfect. "How can we learn without a teacher?" has become a proverb. Yet the student who is attached to an extern maternity has to a great extent to "learn without a teacher." He goes alone to the patient or at best accompanied by a fellow-student, possibly more ignorant than himself, and as a result finds that, though he may have attended the case, he is but little wiser than he was before. One of our American students once made use of the following words to myself:—"Before I came here I had been in practice at home, and attended many women; but I now find out I was working in the dark." I believe that this gentleman's candid admission of his shortcomings would apply but to too many practitioners. He, after a comparatively short stay here, thanks to "the extent to which he had improved his opportunities," left with a practical knowledge of midwifery which would have done credit to any obstetrician. The same result is possible for each of you. The labour wards are visited almost hourly by some one of the resident medical staff, and we are all actuated by the same wish to aid you to the utmost of our power in acquiring a thorough knowledge of those branches of your profession which it is our duty to teach. But any efforts we may make will be vain unless you yourselves second us by your exertions to turn your opportunities to good account. The time allotted by custom for attendance at a lying-in hospital is short indeed, while what you have to learn embraces a variety of subjects of great importance. You are compelled by the regulations of the licensing bodies to devote three years at the least to the clinical study of medicine and surgery. A short six months, however, is deemed sufficient in which to study, not midwifery alone, but also the nature, symptoms, and treatment of that large and complex class of diseases which are "peculiar to women," including affections of the uterus, ovaries, Fallopian tubes, and vagina, all which are unfortunately of very common occurrence.

Six months at the most is allotted by our medical legislators for the study of these numerous and complex affections. Need I add that it will require unremitting attention on your part to attain to even a very moderate proficiency in that short time? Indeed, the mass of students go forth into practice absolutely ignorant of midwifery and gynecology. With some this lamentable result is the consequence of sheer indifference; with others, of a foolish self-confidence, which induces them to suppose that midwifery is a very simple affair, needing no special study to fit them to become efficient practitioners. Such men, when they enter into practice, are soon undeceived. They will certainly ere long meet with difficult cases of midwifery, and, moreover, will discover that they require the exercise of no ordi, nary skill to treat efficiently. They will also find out that such are of far more frequent occurrence than those demanding surgical interference; while cases of dysmenorrhœa, menorrhagia, and others of minor importance, exhibiting symptoms referrible to the uterus, are common indeed. And, remember, it is now-a-days absolutely essential that you show yourselves conversant with these latter affections. The public have become educated, and are well aware of the advance made in recent years in the knowledge of uterine diseases, and expect much more from their medical attendants now than they did in days of yore.

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

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

The rule which guided obstetric teachers when I was a pupil was this, "that meddlesome midwifery was bad," a rule not devoid of truth when applied to the attempts made by ignorant practitioners to accelerate delivery, but to be utterly repudiated when applied to the skilful efforts of the educated accoucheur. The effect of the rule was this, that women were allowed to linger in agony for fifty and

sixty hours—aye, and even for a much longer time—without any attempt being made to relieve them. The results. I need hardly say, were lamentable both as regards the mother and the child. Many mothers sank, worn out by long continued suffering, or died subsequently of peritonitis, the result of unduly prolonged uterine action. In others, sloughing of the vagina followed, caused by the long-continued pressure exercised by the fœtal head on the soft parts of the mother. This again was followed either by the formation of dense bands occluding the vagina to a greater or less extent, and which often opposed serious obstacles in subsequent labours, or by the formation of vesico or recto-vaginal fustulæ, a source of the most intolerable misery to the unfortunate patient, rendering her loathsome alike to herself and to others. Nor were the results as regards the child less lamentable. Women were allowed to linger on in labour till their children being dead, the perforator was used—an instrument harmless enough to the dead infant, whose life, however, was not the less sacrificed to a rigid adherence to the rule of non-interference.

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

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

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

1. That the child be alive.
2. That the head have remained stationary for six hours at least.
3. That the membranes be rupturing, and the os uteri fully dilated.
4. That the head of the child be so circumstanced that the ear can be distinctly felt.
5. That the state of the soft parts be such as denotes the absence of inflammation.

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

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

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

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

(*) "Practical Observations." By Hardy and M'Clintoch, 1848, p. 89.

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

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

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

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

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

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

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

Chloral, too, is now used with great advantage in cases in which the cervix uteri is unyielding, and where delay in the first stage occurs from this cause. In these cases it was formerly the practice to administer tartar emetic in nauseating doses. This though often very efficacious, is objectionable in several respects; it is most irksome to the patient, who for many hours is kept in a state of nausea; then it is liable to reduce the patient's strength, and sometimes gives rise to troublesome diarrhœa; while with respect to patients who are weakly, or in deli-

cate health, its use is altogether forbidden. Chloral, on the other hand, administered in ten-grain doses, at intervals of fifteen minutes, not only gives rise to no discomfort, but sometimes produces refreshing sleep, and seldom fails to induce relaxation of the rigid cervix. The quantity administered in these divided doses should not exceed sixty grains, ten grains being given every fifteen minutes, and a much less quantity is often sufficient.

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

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

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

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

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

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

REMARKS ON CHRONIC DYSENTERY; WITH THE HISTORY OF A CASE OF FIVE YEARS' STANDING CURED WITHIN FIVE WEEKS BY TOPICAL TREATMENT.

BY T. GAILLARD THOMAS, M.D.

There are few curable diseases which offer a more unfavorable prognosis than chronic dysentery. The dangers which attend the affection in its acute stage are greatly increased in that in which painful hæmorrhagic and intractable ulcers cover the surface of the rectum and colon, and exhaust the patient by loss of blood, constant pain, frequent evacuations, and the intense nervous depression which attends such cases.

The experienced practitioner will require no citation of authorities to remind him of the determined hold which this disease keeps upon the individual once

becoming affected by it; how it baffles all varieties of medical treatment; and how for years it pursues its victim, and in spite of change of air and of all his habits of life it goes on to a fatal issue. So remorseless is its course, and withal so uniform, that it justifies this description at the hands of a modern writer: "Chronic dysentery is one of the most intractable and hopeless of diseases.....The duration of the disease embraces usually several months and sometimes years. If not destroyed by some intercurrent affection, the patient becomes extremely emaciated, reduced almost to a skeleton, the surface is usually dry, cool, or cold, the pulse becomes more and more feeble; the mental faculties are weakened, delirium rarely occurring but the mind in certain cases falls into an apathetic state, the patient being indifferent to, and taking but little notice of, persons and things around him. Anorexia becomes complete, and vomiting, in some cases, is a prominent symptom; œdema of the lower limbs sometimes occurs; ulceration of the cornea is an occasional event, and I have known the cornea to be perforated, with loss of the humors of both eyes; the mode in which a fatal termination takes place is generally typical of dying by slow asthenia."* That this picture is not overdrawn the physicians of this country will testify who have followed out to their terminations the numerous cases which developed in the malarial regions occupied by the soldiers of the United States during the Seminole, the Mexican, and the late Civil wars. Thousands returned, after escaping the dangers of the battle-field, to linger out a painful existence, and to fall victims to chronic dysentery. But the disorder is by no means confined to those who have been exposed to malarious influences; scarcely a village will be found in our land which cannot furnish examples of it.

The following case is related to show the wonderful results which, sometimes at least, follow local treatment in this intractable disease:

On the 16th of September 1875, I was sent for to see Mrs. X., who brought me a letter from Dr. J. Goodman, of Louisville, Ky., who stated that she had "suffered from chronic dysentery for four or five years," and that during that time she had had "several attacks of acute inflammation of the bowels in which she was extremely ill."

The history, as given by the patient, was this: On the 9th of December, 1870, at the moment that she received the unexpected tidings of the death of a brother, she was suddenly seized with acute dysentery. This became chronic, and exhausted her by the severe pain, frequent evacuations, and hæmorrhages which accompanied it. At short intervals acute attacks would be engrafted upon the chronic state, apparently excited by indiscretions in diet or unusual fatigue, and in some of these her condition became alarming. In her written statement she says: "I have been ill for five years; even when able to sit up and go about the house have had constant dysentery; the smallest number of actions from my bowels being eight, all containing blood and mucous. It was no rare thing for me to have twenty-seven and more actions from the bowels a day. On these occasions I would lose a large quantity of blood. I lost color, appetite, strength, and spirits, while my nervous system was in a most painful condition. I have been attended by six physicians, and would appear to improve, but soon would drift back to my bad condition. The treatment that gave me more relief than any other (until I came to New York) was some injection used by Dr. Goodman, but I soon grew discouraged, and induced him to discontinue it. I left Louisville, September 12th, in a most desperate condition, Dr. Goodman having sent me to New York."

Upon the arrival of Mrs. X. in New York I saw her with Dr. Lewis A. Sayre, who had previously seen her, and, at his and her request, I took charge of the case. Knowing by reputation the practitioners under whose care she had been for five years, I had little hope of accomplishing any good for her by the ordinary methods of treatment, for I felt fully satisfied that all these had been exhausted. My only hope of curing her lay in a resort to local treatment after the method which I now proceed to prescribe.

On the 19th of September Dr. H. F. Walker anæsthetized the patient and I proceeded to make a thorough examination of the rectum. After etherization she was placed in the left lateral position, and after stretching of the sphincter ani by the fingers, a long duck-bill speculum was introduced. This was held by my nurse exactly as in vaginal examinations, while by a depressor I pressed downward the anterior rectal wall. No one who has not examined the rectum in this way can imagine the facility with which the whole canal can be seen. In this instance it was perfectly exposed up to the sigmoid flexure. I now cleansed it of all fecal matters by a long glass tube so bent upon itself at its upper extremity as to throw a stream of water from a Davidson's syringe back toward the anus.

Throughout the whole extent of the intestine exposed to view the mucous membrane was seen swollen œdematous, hanging in hæmorrhoidal masses and studded with deep ulcers with grayish bottoms. It was greatly engorged, and presented that deep red almost violet, hue which is seen in the throat in cases in diphtheria.

On this occasion no application was made, and, an the anæsthetic had disturbed the patient's stomach and rendered her nervous, nothing more was done until the 30th of September. Then ether being again administered by Dr. Walker and the bowel thoroughly cleansed, I wrapped a small piece of wet cotton around the end of whalebone rod, and, dipping it in pure commercial nitric acid, lightly touched the swollen mucous membrane and all the ulcers intervening between the sigmoid flexure and the anus. No superfluous fluid was allowed to attach itself to the cotton and the cauterization was nowhere so decidedly practised as to render the occurrence of sloughing possible.

Upon recovery from the anæsthetic a slight amount of pain only was complained of, and writing of the subsequent effect the patient says: "It soothed me

* Flint's "Practice."

and I slept well. This was the first real respite which I had experienced in five years."

At this time the patient was confined to the milk-diet as much as possible and limited as to exercise; but, both these plans of treatment had been adopted and had failed before she came under my care, I did not deem it wise to press them too much upon her for fear of disheartening her. This application proved of decided benefit in diminishing the number of evacuations, the amount of blood passed, and the degree of pain experienced.

On the 6th of October another application of nitric acid was made. This proved still more beneficial. The patient in her written history declares, "The second application improved me very decidedly." After it the milk-diet was more strictly adhered to, and exercise was more restricted.

On the 11th of October the third and last application was made. Dr Walker and myself were then both struck by the great improvement in the appearance of the bowel. The ulcers had almost entirely disappeared: the mucous membrane was much less swollen; and the appearance of engorgement much modified. After this application the milk-diet was strictly adhered to, and the patient for ten days confined to bed. The result of this application surprised me. Blood ceased to pass with the evacuations; these in three days became limited to one in twenty-four hours; all pain ceased; and the patient rapidly improved in general appearance, in flesh, and in spirits. "To-day," she writes, "October 26th, I feel that I am entirely relieved, having now for eight days had only one action in every twenty-four hours. All pain has left me. I am gaining flesh, color, appetite, and spirits, and there is not even a trace of dysentery left."

On the 22d of October Mrs. X. left her bed, began to eat small amounts of animal food and bread, rode out every day, and on the 29th of October returned to her home in Kentucky.

Since her arrival there I have received the following letter from Dr. Goodman:

LOUISVILLE, KY., *November* 8, 1875.

DR. T. G. THOMAS—

DEAR DOCTOR: Mrs. X. reached home safely, and I am glad to say has been doing well ever since. She has gained flesh, and is looking better than I have seen her for years. Her bowels are perfectly regular. I have every reason to hope, from present appearances, that she is permanently relieved.

Respectfully yours,

J. GOODMAN.

The patient herself, writing on the 7th of November, says: "We arrived safely, and although we had a most fatiguing journey, being out two nights, I stood it wonderfully well. I must tell you how well I continue to be. My bowels are *entirely* cured, though just now I am nervous (from seeing too much company), and have no appetite. The day after I reached home I saw nineteen lady friends, each one of whom remarked upon the great improvement in my appearance. Dr. Goodman declares that I look better than I have done for years."

To me this case presents itself as one of great significance. I cannot look upon the result obtained as an accidental one, and I regard it as a case second in interest to none in my experience. Here we have a case of chronic dysentery of five years' standing apparently cured by three applications to the ulcerated rectum; the whole time of treatment being comprised between September 30th and October 29th. Well knowing by abundant experience the nature of the disease of which I speak, even as I write this account I feel inclined to question as to whether I have not unintentionally colored the sketch too highly. The rapidity of the result surprises no one more than myself, but as to the absolute faithfulness of the record here made there is no doubt whatsoever, either in my mind or that of Dr. Walker or Dr. Goodman.

Some may lay great stress upon change of air and strict adherence to the milk-diet. This feeling I cannot share, for I have too often seen these fail in such cases, and they had signally failed in this case when previously tried. There is, I think, no room for doubting that the cure was effected by cauterization of the rectum as above described.

The plan of treatment which I here pursued was not original with myself. It was based upon an article by my friend and former pupil Dr. R. B. Maury, of Memphis, Tenn., published in 1872. In that article several cases were detailed which struck me at the time as being exceedingly important, and suggested to me the course which I have described in this paper. As I cannot lay my hands upon Dr. Maury's essay, I have written to him, and take great pleasure in appending a communication from him upon the subject. In this he explains the theory upon which he believes that cauterization of ulcers within reach aids in the cure of those which are inaccessible.

MEMPHIS, TENN., *October* 23, 1875.

DR. T. G. THOMAS—

MY DEAR DOCTOR: As I have not a copy of my article on "The Treatment of Chronic Dysentery by Topical Medication," which was published in the December number of the *Atlanta Medical Journal*, 1872, I will comply with your request, as far as I can, by giving you the substance of it from memory.

That article related the histories of eight cases of chronic dysentery which received no other than topical treatment after they came under my care. Seven of these cases recovered.

The remedy used was nitrate of silver, varying in strength from the solid stick, to that of a solution, one drachm to the ounce of water. It was applied through Sims's speculum directly to the ulcerated surfaces, after carefully cleansing the rectum.

The first of these cases was treated in 1869. The method was original with me, so for as I then knew, or have learned since.

Struck with the results obtained from this method, I was soon convinced that an important principle was involved in it.

In these cases the rectum is exceedingly irritable, and responds to the slightest impressions. Through reflex action these impressions keep the whole alimentary canal, but especially the colon, in a state of disturbance; and rest, which is so important in the treatment of all inflammations, is thereby rendered impossible.

The local applications not only exercise an alternative influence upon the ulcers, and thus promote their healing, but by blunting the sensibility of the inflamed rectum, they restore quiet to the entire intestinal tract.

It was suggested that this treatment should be instituted in every case of dysentery which had continued for six weeks or more, and therefore had ceased to be acute.

Since the article was published, I have treated four or five other cases upon this plan, and with the same results.

Very truly your friend,

R. B. Maury.

In the case of Mrs. X. I preferred using nitric acid to nitrate of silver, for the following reasons: it is a less painful, more effectual, and equally manageable caustic; I have for years used it almost universally by preference; and the pathological condition exposed to view by examination seemed so very grave that I dared not trust to the milder caustic, for fear that the frequent repetition which would be necessary might exhaust the slender stock of patience left to my disheartened and nervous patient.

Of course the idea will at once suggest itself that nitric acid might create subsequent rectal stricture. I had no fear whatever upon this point, for it acts in this way only when applied strongly enough to create sloughing of the superficial tissues and deposit of lymph, the result of inflammatory action in the deeper ones. My use of the caustic was entirely too light for any such result to occur.

Even if this case stood alone, it would seem to point to an important principle in the treatment of a most rebellious class of cases. Supported as it is by the admirable results obtained from the same practice which was here adopted by Dr. Maury, it deserves still more attention. Since it is extremely unlikely that the plan here recommended will do injury to any case of chronic dysentery, and since no other plan offers any decided prospect of relief, it is my sincere hope that others will test the matter, and publish their results, whether they be favorable or the reverse.—*New York Medical Journal.*

ON MEMBRANOUS CROUP AND ITS TREATMENT.

By Bedford Brown, M.D., Alexandria, Va.

Setting aside all theories in regard to the specific character of croup as unsustained either by arguments or by facts, those pathological processes combining to complete the disease known as membranous croup comprise, primarily, engorgement; secondarily, inflammation; and, lastly, exudation on the mucous membrane of the larynx and trachea: or, rather, the destruction and sloughing or exfoliation of the involved epithelium, and then the membranous exudation. This process of epithelial exfoliation is truly one of the most important of all those elements entering into the formation of the disease. Without this preliminary arrangement it would not be possible for the last and most important stage—that of exudation—to occur.

Hence, when the destruction and exfoliation of the epithelial coat have taken place, the basement membrane underneath is laid bare; it can no longer secrete mucous, but becomes the theatre of those important actions consisting in the exudation of plastic material from the exposed vessels, which rapidly assumes the form and consistency of membranes.

Not in all, but in a very large proportion of the cases of tonsillitis coming under our observation, in greater or less degree these identical processes occur and may be observed at any time.

In such cases the affected tonsil first becomes engorged, then highly inflammed then one or more white or gray patches, sometimes larger than a shilling, appear on its surface. These may disappear and re-appear several times before resolution. These cases are usually denominated ulcerative, and, at other times, diphtheritic. In reality they are neither, but of a true exudative character with an innocent type of disease. If such exudations were situated in the larynx or trachea, they would then become matters of infinite moment. In tonsillitis of this character, until the inflammatory action subsides, we may observe this membranous exudation, though removed by local applications, return every day. Its removal is usually followed by bleeding.

The same destruction and exfoliation of the epithelial coat occur here as in membranous croup. Thus, while the epithelial coat exists in its perfection with unimpaired functions, there can be no membranous formation. This fact is one of paramount importance in the pathological history of croup and its therapeutic management.

Bearing on this point there is another pathological question of infinite importance. It is whether membranous croup is a simple inflammatory affection, or a specific disease. Universal experience in the profession unites in establishing the opinion that by appropriate treatment the exudation may be prevented. Hence the conclusion that this form of croup is a simple form of inflammation. Under intense inflammation, the epithelium ceases to perform its function of secreting mucus. There is an utter suspension of action, and consequently a complete absence of all moisture on the epithelial surface. There is no relief of the engorgement and blood-stasis, and this delicate coat sloughs, leaving the basement membrane denuded, with its injected vessels laden with plastic blood, when exudation results. In simple tonsillitis with limited exudation we have ocular demonstration of the fact that this exudation, when left undisturbed, continues to grow in proportion to the area of the destruction of the epithelium, and also of the fact that during a high state of inflammatory action the epithelial coat so destroyed cannot be repaired until resolution begins. Hence the successive crops of exudation in membranous croup, diphtheria, and tonsillitis, while inflammation continues.

It would appear that in all local affections of an exudative character, morbid action must reach a certain point, must pass only through certain stages, and must be surrounded with favorable circumstances, to complete the process of exudation. When this process is interrupted, either the normal secretion of the part affected takes its place, or purulent formation is substituted. Thus, in the case of incised wounds, the adhesive or plastic form of inflammation is often through slight influences converted into the purulent. In serious inflammations,

also, the adhesive may be exchanged for the purulent or serous products either by local or by general influences. In membranous croup we desire to convert the plastic form of the inflammatory products into the mucous before exudation has taken place, and, if possible, into the purulent after that has occurrred. Thus, if the epithelial cells coating the inflamed surface should be made to pour out their peculiar secretion there can be no plastic exudation, and these delicate bodies are saved from destruction.

Treatment of the Inflammatory Stage.—Whatever agents will cause a free secretion of mucus in this stage of croup, will prove the best means of preventing the last or exudative stage.

Iodide of potassium is unquestionably one of the most prompt and certain stimulants of the mucous secretion in our possession. With this valuable property it combines an alterative power over inflammations of mucous membranes, which gives it peculiar adaptation to the treatment of the inflammatory stages of this affection. The object in using it is to cause the mucous membrane of the bronchial system to pour out its secretions copiously, with a view of saving the epithelial coat from being destroyed, and preventing exudation. So long as the fever and inflammation are active, the cough clear and metallic in character, the voice hoarse, the iodide may be used energetically and freely. This remedy, to be of service in this disease, must be used in heroic doses, repeated at intervals of one or two hours. Time is a precious consideration in the treatment of croup, and to insure success the system must be saturated with the drug as speedily as possible. The remarkable sedative influence exerted by this preparation over inflammations of the respiratory tract gives it additional value in the treatment of croup. Its sedative power in the turbulent and laboured respiration of asthma and emphysema, in dry catarrh, and in kindred affections, is unequalled by that of any other drug for permanent effect. In addition to this, it is especially adapted to the respiratory diseases of childhood. The action of iodide of potassium over the respiratory tract begins with the Schneiderian membrane, and embraces the mucous surface of the mouth, the entire glandular system pertaining to salivation, the pharnyx, larynx, trachea, and bronchial membrane. The normal secretions peculiar to all these surfaces are greatly augmented by its agency. Indeed, its remarkable powers as an expectorant are far from being understood or appreciated.

In the inflammatory stages of croup it may be advantageously combined with the bicarbonate and bromide of potassium, and glycerin, which latter has valuable expectorant properties.

The following formula is adapted to a child of five years of age:

℞ Potass. iodid., ʒ ss;
Potass. bicarb., ℈ ij;
Potass. bromid., ʒ i;
Aquæ, ℥ ij;
Glycerinæ, ℥ i.—M.

Sig.—Dessertspoonful every hour.

Under the free and energetic use of the iodide in these affections, either alone or in the above combination, when the system is fully saturated with the drug the quantity of salivary and mucous secretion poured forth is sometimes astounding. This is true of croupal, tonsillitic, and catarrhal affections. In cases of tonsillitis with intense injection and tension of mucous surface, and attended with great dryness and want of moisture, the iodide will usually stimulate free secretion from the fauces, to the infinite relief of the local affection.

In a considerable proportion of the cases treated by the iodide of potassium in large doses, there was free and copious salivation, but without any of the peculiar inflammation of the salivary glands resulting from the use of mercury.

The following cases are presented as examples of the treatment of croup by this method:

Case I.—A boy of six years had been very hoarse with fever and croupy cough for several days. When visited, he was suffering from intense hoarseness, genuine metallic cough, laboured breathing, and restlessness. The tonsils were inflamed, and presented exudation on their surfaces. This patient took four grains of iodide and five grains of bicarbonate of potassium, dissolved in one teaspoonful of glycerin and a tablespoonful of water every two hours. In twelve or fifteen hours the symptoms were all diminished in violence. In twenty-four hours there were copious salivation and free secretion of mucus from the bronchial surface. The exudation on the tonsils soon disappeared, and the patient, after expectorating small portions of membrane, made a rapid recovery.

Case II.—This was a young and very robust boy of three years. After a preliminary hoarse cough, with feverishness for two or three days, the formal attack of croup set in with very alarming symptoms. The same prescription was resorted to in this as in the former case, only in diminished proportion, with similar results.

Treatment of the Exudative Stage.—After exudation has been fully established a different system of treatment becomes necessary.

The tincture of the chloride of iron, combined with the chloride of ammonium and chlorate of potassium, are the only general reliable means in this stage. They act best when dissolved in glycerin and water. Glycerin is always a valuable agent in croup, as it is one of the few articles which invite moisture to the inflamed surface in the form of sero-mucous secretion.

Thus, when the symptoms of orthopnœa become more permanent, and the fever declines without corresponding improvement, this treatment should be instituted vigorously and without delay. The system must be saturated with the remedies as rapidly as possible; consequently they should be given every hour.

The following case is reported as an example of the effects of this treatment:

Case III.—This was a healthy child of fifteen months. When first visited, it had been suffering

with a dangerous attack of croup for two days. There was fever, with great acceleration of pulse, entire suppression of cough and voice, with inability to cry. The respiration was painfully labored, with frequent paroxysms of difficult respiration. Afer a vain trial of the potash treatment, the following prescription was administered every hour:

℞ Tinct. ferri chlor., ℥ i;
Ammonii chloridi, ʒ iss;
Potass. chlorat, ʒ ij;
Glycerin., ℥ ss;
Aquæ, ℥ iss.—M.

Dose, one teaspoonful.

In connection with stimulants and nourishment, this treatment was continued with favorable results.

The chloride of iron is not given here, as in diphtheria and its kindred diseases, as a corrective of blood-poisoning, but for its remarkable influence over local disease of a diffuse inflammatory character attended with either exudation, effusion, or extravasation. When absorbed into the circulation in sufficient quantity, it exerts a marked influence on the capillary vessels in the remotest part of the system, contracting their calibre, reducing dilatation, correcting engorgement, and arresting exudation.

THE USE OF LIQUOR BISMUTHI FOR HÆMORRHOIDS AND PROLAPSUS ANI.

By John Cleland, M.D., F.R.S.,

Prof. of Anatomy and Physiology, Queen's College, Galway.

From the *London Practitioner*, January, 1876.

While it may be freely admitted that in many instances hæmorrhoids cannot be treated sucessfully without surgical operation, and while, for my own part, in a considerable experience I have always had good reason to be satisfied with the results of the operation recommended by Mr. Syme, it is evident that in a large number of cases operative interference is unsuitable; in others the affection, however ameliorated by such interference, remains uncured; and it is desirable that, whenever it is possible, a cure should be obtained without resort to so disagreeable a measure. With this end in view I venture to say a few words on the use of liquor bismuthi given as enema.

My attention was first drawn to this remedy by a rather peculiar case of prolapsus of the bowel. A middle-aged woman came for consultation in such a condition that she could with difficulty walk, inasmuch as whenever she parted her thighs, the bowel emerged and hung down for about six inches, in folds of such a character as made it evident that at least half-a-yard of intestine was extruded. The whole surface of the mucous membrane exposed was a deep raspberry red, like those cases of hæmorrhoids which some practitioners delight to treat with nitric acid. this condition was chronic; external supports had failed; the possibility of removal of the whole prolapsed mass suggested itself, but such an operation attended with enormous risk was not to be thought of in the case of a patient enjoying a certain measure of health. Astringents had been tried and failed, and it seemed questionable if astringents were the most suitable remedies in such a case. It appeared much more probable that an irritated and congested condition of the mucous membrane led to derangement of the action of the muscular walls than that in a strong woman, a local relaxation, involving sphincters and intestina walls, had produced a prolapsus, which led to congested mucous membrane, from exposure. I recollected the relief frequently obtainable in cases of hæmorrhoids, by application of white bismuth or oxide of zinc. In this case, however, ointment or powder obviously could not be effectually applied. But the liquor bismuthi in stomach affections has a soothing influence far superior to white bismuth. I therefore directed my patient to mix a desert-spoonful of liquor bismuthi with half a wine glassful of starch, and after getting into bed returning the bowel to its place, to introduce this enema and retain it. I was much pleased, a few weeks afterwards, by my patient calliing to tell me that she was nearly well, and to ask if she might continue the remedy. This she was ordered to do; and I have every reason to believe that she has had no return of her malady. I have since frequently used the same remedy for the ordinary prolapsus in children, with invariable and rapid success.

In severe hæmorrhoids there are usually three parts affected, the integument, the mucous membrane, and the hæmorrhoidal veins. Plainly the veins cannot be reached by local medicaments and those comparitively few cases in which they alone are involved must be treated in other ways. The integument, together with the edge of the mucous membrane up to the grasp of the sphincter, is within easy reach, and may be treated in various ways according to circumstances. Thus, when the congestion is superficial and produces a catarrhal oozing, bathing with whiskey or other alcoholic lotion, a small pad of dry cotton wool firmly applied to soak up the moisture, and also zinc or bismuth in powder or ointment are all exceedingly useful; and when a congested surface within easy reach is accompanied with venous engorgement, tincture of iodine sometimes produces surprising effects, although in other instances it is too painful to be borne. But when the mucous membrane is considerably involved I know no application to compare with injection of liquor bismuthi, which has the advantage of being painless; and, as in the case of prolapsus narrated above, the improvement of the membrane has wonderful influence on both the veins and integument. In instances in which the necessity for surgical interference appeared indubitable, I have had the gratification of defrauding myself of the pleasure of operating, and of seeing the patient recover. This is the more gratifying, as the surgical treatment of hæmorrhoids labors under the disadvantage, that, no matter what may be the particular operation adopted, it never removes the predisposing cause of the malady.

BISMUTH AND CREASOTE IN INFANTILE VOMITING.

(*British Medical Journal*, September 25, 1875).

Dr. Edward Mackey has for a number of years used the following method of treatment in cases of infantile vomiting, and with great success.

Purgatives or ordinary astringents being either premised or contra-indicated, a valuable remedy is known in quarter or half drop doses of dilute hydrocyanic acid, with a grain or two of soda in camphor or dill water. But in severe cases with much depression, and in many cases as an alternative treatment, bismuth and creasote together will be found extremely good. They may be well combined by dropping a minim of the liquid first upon a small quantity of magnesia, rubbing up with eight grains of subnitrate of bismuth, and dividing into four powders; for elder children, into two. They should be freshly prepared for use, and to infants given gently on a moistened finger-tip every three, four, or six hours. In the intervals a little saccharated lime-water with milk should usually be given.

OINTMENT FOR SYCOSIS.

Dr. S. Smith, of New London, Ct., sends us the following formula for an ointment, which he has used for several years, with unvarying success, in the cure of this intractible affection:

℞ Acid tannic.....gr. xv.
Sulphur.....gr. xij.
Aquæ rosæ.....qtt. xviij.
Adepis.....℥ ijss.
M.

Apply a quantity the size of a pea to the affected spot every morning and night.

QUININE AS A GARGLE.

(*The Practitioner*, August, 1875.)—Dr. David J. Brakenridge has for four months treated all suitable cases of sore throat occuring in his practice with a gargle composed of ten grains of sulphate of quinia and five minuims of dilute sulphuric acid to each ounce of water. From a considerable experience he draws the following conclusions:

Simple non-syphilitic ulcers of the throat under this treatment at once assume a healthier aspect and heal rapidly. In syphilitic ulcers, the local treatment has always been accompanied by the internal administration of iodine of potassium or some other constitutional remedy; but the cure was apparently hastened by the quinine gargle. Its effect on the sore throat of scarlatina is very marked, the pultaceous secretion being checked and the inflammatory swelling diminished.

It is of comparatively little use in the early stage of cynanche tonsillaris, over which tincture of aconite in minim doses, frequently repeated, has so decided a control. When, however, abscess, followed by abundant discharge of pus, results its beneficial influence in checking the suppuration and promoting healing is marked.

In the slighter forms of diphtheritic sore throat it answers admirably, preventing the extension of the disease and promoting the separation of the membranous exudation.

Dr. Brakenridge reports a very severe case of true diphtheria in which the gargle had a remarkably beneficial effect, and says that it is in such cases that he hopes it will prove most useful.

CASES OF SYPHILITIC HEADACHE AND NEURALGIA CURED BY CALOMEL IN SMALL AND REPEATED DOSES.

In syphilitic headache, which is always so painful, and often produces obstinate insomnia, as well as in neuralgia of venereal origin, Trousseau used to prescribe calomel in very small and repeated doses; for instance, one centigramme (or about one-sixth of a grain) a day, divided into ten doses, administered at one hour's interval, so that the patient would take one millegramme only (or about one-sixtieth of a grain) every hour.

Dr. Peter, of Hôpital St. Antoine, following Trousseau's example, uses this drug in similar cases as well as in doubtful ones, in which it has the excellent effect of speedily determining the nature of the disease.

Dr. Peter often quotes the instance of a young girl who entered Trousseau's wards for a severe facial neuralgia. For more than fifteen nights the patient had not slept, on account of the intensity of the nocturnal pains. The illustrious "clinician" noticed on the girl's temple the presence of a very small tumour, painful on pressure, and which he thought must be of syphilitic origin. Possibly the tumour rested on some filament of the temporo-facial nerve and produced irritation of it. Anyhow, he resolved to prescribe immediately calomel in doses as above described. The very same night the young woman slept four hours. The next night was attended by perfect sleep, and the pain disappeared entirely on the third day, though the size of the tumour had not much decreased.

Amongst other cases treated in like manner by Dr. Peter, the following are worthy of being noted:

A woman, aged twenty-three, was admitted on October 9th, 1874, for various syphilitic manifestations, large *plats muqueus* of the vulva and anus, a general papulo-squamous syphilitic eruption, etc. For these lesions the patient had already been put under a course of protoiodide of mercury before entering the hospital. But her chief complaint was a most violent nocturnal headache, beginning at 4 P.M. and lasting till 4 A.M., and which completely deprived her of sleep. Moreover, she had fever, and complained of intense pain along the nerves of the left arm and in the brachial plexus of the same side. On October 10th, instead of continuing the use of the protoiodide of mercury, as had been prescribed in town, Dr. Peter ordered one centigramme of calomel in ten doses, each to be given at an hour's interval. The next day (the 11th) the patient's report was that she had suffered less during the night. The headache commenced only at 6 P.M., and left her at 2 A.M., after which time she was able to sleep. The pain in the arm had been the

ame. In the night of Oct. 11th–12th the headache almost completely disappeared. It commenced very slightly at 7 P.M., and was so slight that the patient was able to sleep almost the whole night. The fever had also ceased. The calomel was then discontinued, nevertheless the night of October 12th–13th was excellent. The headache went off entirely, and the pain in the arm had diminished considerably. From that moment the classic treatment of syphilis, viz., the protoiodide of mercury, was resumed in order to combat the other syphilitic manifestations.

In another woman, who entered Dr. Peter's wards on the 29th of February this year, the syphilitic headache had been going on for nearly a month. It had been general at first, but after a fortnight became confined to the left side of the head. As usual, the pain was much more intense at night than in the day, and prevented sleep. Together with this headache, the patient complained of an intense pain in the right side, and indeed it was for this latter ailment that the patient had sought admittance into the hospital. Dr. Peter stated that it was seated in the situation of the chondro-costal articulation of the left side, which was slightly tumefied. Moreover, the patient had syphilitic roseola. On Feb. 22d ten millegrammes of calomel were prescribed, but, through some mistake, only two were given. The patient suffered much from the head during the night. On the 23d ten doses were administered. The headache disappeared almost completely, and the patient slept for ten hours. On the 24th, the stitch in the side, which had been already less painful two days before, when only two doses were taken, diminished to such an extent that it required rather strong pressure to produce any pain. On the 25th the ten doses were again forgotten, and the patient did not sleep so well as on the previous night. The sleep was, however, better than at first, and the headache less intense than before the calomel was used. The ten doses were given this day, and the patient slept from 8 P.M., till midnight. From that hour she only got sleep in snatches, but without having any pain in the head; the pain in the side had by this time completely disappeared. On the 27th the general treatment of syphilis with a syrup containing iodide of mercury and iodide of potassium was commenced. The headache was only felt two hours in the nights of the 27th and 28th, and afterwards entirely ceased.

The remarkable features of this mode of treatment, says Dr. Peter, are—first, the rapidity of its action; next, the fact that it is successful in cases where the really specific treatment of syphilis fails. It constitutes, in a manner, *the* medicine of nocturnal syphilitic pain; but cannot replace the other plan of treatment for other syphilitic manifestations. Its use is indicated whenever nocturnal pain is very intense and interferes with sleep. It diminishes pain and its consequences the very first night it is given, and generally extinguishes suffering by the second night. The treatment may be carried on for three days, and that period of time is almost always enough for its success. If, however, the desired result has not been obtained, it ought then to be suspended for one or two days, so as to prevent salivation; and it can be resumed afterwards for two days successively, in which case Dr. Peter has never seen it fail.

Dr. Peter thinks that this plan of treatment is thus efficacious because, first, the drug is mercury; and, secondly, the absorption of these very small doses is exceedingly rapid, and the repetition of the action takes place, every hour. Whatever the explanation may be, adds Dr. Peter, it is to Trousseau that he is indebted for the idea of using calomel in this manner, and to him belongs all the credit.—*Lancet*, Nov. 6, 1875.

HOT WATER IN SURGERY.

The New York *Medical Journal* states that, in Bellevue Hospital, hot water has, within the past few months, been used in the treatment of some injuries, with marvelous results. We extract the following examples:—

The water in the bath varies from 100° to 105° Fahr., and is changed as soon as it falls below this. An additional advantage is obtained by the change of the water, as any discharge which forms is removed.

Compound Comminuted Fracture of Metacarpal Bones.—The patient was engaged in a machine shop, and while his hand was upon the anvil of a trip hammer, the hammer—weighing seven hundred pounds—fell. It so happened that a file was on the anvil, and in this way the force of the hammer was arrested about half an inch before it reached its bed. When the hand was examined, it was found that the whole of the palm was a mass of pulp. The metacarpal bones were comminuted extensively, and there was apparently but small chance of saving the hand. It was, however, placed in hot water, and kept there for two or three weeks; and, at the end of that time, taken out and dressed. In three months the patient was sufficiently well to leave the hospital, and at present—nine months since the accident—he is able to move the fingers, and has a useful hand.

Compound Dislocation of the Ankle Joint.—The second case was one of compound dislocation of the ankle joint, in which the proximal end of the first metatarsal bone protruded from the foot. The dislocation was reduced, and the foot placed in hot water. At the end of a week it was taken out and dressed in the ordinary manner. At the present time the foot is doing well, and promises for the patient a good result.

Compound Fracture of the Metatarsal Bones.—In this patient, the second, third, and fourth metatarsal bones of the foot sustained a compound fracture by a mass of rock falling on them. The foot was kept in the bath for fourteen days, and at the end of that time it was removed, and treated in the usual manner.

TREATMENT OF DIPHTHERIA.

Dr. J. Lewis Smith, of New York, reports unusually favorable results in diphtheria:—

The mode of treatment employed, and by which the author, in his private practice, has saved a much larger proportion of cases than he had been able to cure by any other measures which he had previously employed, was the following: As soon as the case comes under observation, the following mixture is applied, every second or third hour, over the fauces, by one or two applications of a large camel-hair pencil:—

℞.	Acidi carbolici,	gtt. vj-x
	Liquoris ferri subsulphatis,	℥ iij
	Glycerinæ,	℥ j. M.

If there is discharge from the nostrils indicating diphtheritic inflammation of the Schneiderian membrane, a little of the same mixture diluted with an equal quantity of warm water is injected into each nostril every three to six hours. To do this the child is placed upon its back, with the head thrown backward and the eyes covered with a towel, to prevent the liquid from entering them. A small glass ear or nostril syringe, with a knob or button at the end of the nozzle, is the best form of instrument for these injections.

One-third to one-half of a teaspoonful of the diluted mixture is a sufficient quantity to employ for each nostril. This application, properly made, prevents decomposition, removes the offensive odor, and, that which is of the greatest importance, prevents blood-poisoning; it immediately arrests the movements of the bacteria, and probably destroys them, as the author has observed in experiments with the microscope.

Quinine in doses of one to two grains, according to the age of the patient and severity of the case, is administered about every fourth hour, and each hour in the interval half a teaspoonful to one teaspoonful of the following:—

℞.	Potassæ chloratis,	℥ j-ij
	Tincture ferri chloridi,	℥ j
	Syrupi simplicis,	℥ iv.

A little chlorine is set free in the above mixture, and the quantity may be increased by adding a few drops of dilute muriatic acid. No drinks are to be allowed for a few minutes after its administration, or after the use of the brush; by this precaution, the lotion is no washed away too quickly from the fauces.

In three or four days, if the case progress favorably, these remedies are employed less frequently, but they are continued until not only the pseudo membrane has disappeared, but the inflammation also has in great part abated. When the inflammation has begun to abate, and there is no reappearance of the exudation, a gargle or drink of chlorate of potash is given.

CONJUNCTIVITIS.

A Swiss physician, Dr. Emmert, has found a solution of tannin, five to fifteen per cent., of excellent service in acute conjunctivitis. One drop of the solution is put on the eye every two hours.

WHEN WE MAY BLEED AND WHEN WE MAY NOT BLEED.

In an address in the British *Medical Journal*, by Henry Moon, M.D., F.R.C.P., Physician to the Sussex County Hospital, the writer says:—

In therapeutics, there has been an immense improvement. I will only take one instance amongst many others, that of blood-letting. During my apprenticeship at a large London institution, my chief employment from day to day was to bleed and cup those patients who had been seen by the physicians and surgeons. Blood-letting was then used as a remedy whenever there was an increase of the temperature and a quickening of the pulse; and, doubtless, this indiscriminate irrational application of so bold a remedy destroyed thousands of lives annually. In some cases, however, blood-letting, with the light of modern science, is still a remedy of great practical usefulness.

We may bleed in, for instance, cerebral hemorrhage, if the impulse of the heart be strong, and its sounds loud; if the pulse be regular, and no signs of commencing œdema of the lungs exists, we should bleed without delay. Here a judicious timely bleeding may prevent the extension of the paralysis from the cerebrum to the medulla oblongata, which is essential to life.

In order that as much arterial blood as possible may enter the brain we must try to facilitate the escape of venous blood, without, however, diminishing the propelling powers too much.

We may not bleed when, on the contrary, the heart's impulse is weak, the pulse irregular, and rattling in the trachea has already begun; we may be almost certain bleeding will do harm, since the action of the heart, which is already weakened, would be still more impaired, and the amount of arterial blood going to the brain would be thus still more decreased. When these conditions occur, the indications require just the opposite treatment, in spite of the original disease being the same and being due to the same causes. Here by the use of stimulants, we must strive to prevent paralysis of the heart; frictions, sinapisms, wine, ether, and musk, instead of bleeding are called for.

We may bleed in acute croupous pneumonia, when pneumonia has attacked a vigorous and hitherto healthy person, and is of recent occurrence, the temperature being higher than 105° Fahr., and the pulse rating at more than 120 beats in a minute. Here danger only threatens from the violence of the fever; and a free venesection will reduce the temperature, and lessen the frequency of the pulse. In those, however, who are already debilitated, bleeding increases the dangers of exhaustion. Should the fever in pneumonia be moderate, blood-letting is not indicated, even in healthy and vigorous individuals. It cannot cut the fever short; indeed, the fever is more apt to persist, although in a somewhat more moderate degree; so that the enfeebled patient is thrown into greater danger than if he had to pass through a more violent fever, but with unreduced strength.

We may bleed in fluxion of the lung, arising from xcessive cardiac action threatening life. The re-ult of a bold venesection here is astonishing; as oon as the volume of the blood has become lessened, he pressure diminishes in the arteries (as it depends ipon two forces: first, the energy of the cardiac ontractions; secondly, the fullness of the cavities of he heart). The patients often breathe more freely luring the operation, the bloody foam which they were expectorating vanishes, and life may be rescued rom the greatest dangers, by aid of the physician.

So, also, in collateral fluxion of the lung (acute hyperæmia) during the course of acute pneumonia, pleurisy, or pneumothorax, we may bleed. Here a large part of the dyspnœa depends upon the over-filling of the capillaries and swelling of the vesicles in the portions of the lung unaffected by the inflammation.

When patients die in the first stages of pneumonia or pleurisy, or shortly after the air has penetrated into the pleural sac and compressed the lung (pneumothorax), they die of collateral fluxion (hyperæmia) and collateral œdema. If collateral fluxion threaten life during the progress of these diseases; if the patient be attacked with intense dyspnœa, and a moist *râle* become audible; if the sputa become serous, the danger is imminent. They pay no regard to the small pulse, or rather, look upon it as a new reason for bleeding; for thereby the force of the heart is diminished, the pressure in the arteries of the hyperæmic parts of the lungs is also reduced; the capillaries are less full; the transudation of serum, which was threatening, or had already set in, does not occur or ceases; and here, too, we often see the patient breathe more freely and deeply when the blood is flowing.

Since, however, in by far the greater number of cases venesection has an unfavorable effect upon the main disease, by increasing the danger from exhaustion and impoverishment of the blood, we should not be led astray by these striking instantaneous results, so as to bleed without necessity; that is to say, unless life be threatened. Should œdema threaten in the course of disease of the heart, immediate danger to life may demand a diminution of the volume of the blood, and the relief consequent on venesection is usually beneficial.

The blood of persons of long-standing disease of the heart is poor in fibrin and albumen, and has great tendency to form serous transudations. Venesection renders it thinner, and, therefore, bleeding should never be used in these cases but under the most pressing necessity.

Blood-letting should never be used in the hyperæmia of asthenic fever, no matter how great, and though the œdema threaten life.

In endocarditis, as a rule, bleeding is decidedly injurious; still a condition sometimes exists where the indication as to symptoms calls for venesection. In cases where over-charge of the pulmonary circulation imperils life by threatening œdema of the lungs, and demands prompt relief by diminution of the volume of the blood. A great acceleration of the pulse, and signs of feebleness, however, in the action of the heart, indicate the administration of digitalis. Should palsy of the heart threaten, give stimulants boldly.

THE AVOIDANCE OF INFECTION.

Dr. Priestly, President of the London Obstetric Society, said in a recent address:—

The method to be pursued for guarding lying-in women from noxious influences consists of all those measures which prevent the formation of poisonous materials in her own system, and which secure her isolation from all contagion from without. In following out the first indication, it is necessary to provide, as much as may be practicable, for a woman encountering her confinement in the best possible condition of health, by impressing upon her the necessity of obedience to natural laws during her pregnancy. If complications occur during pregnancy, they must be combated, as the circumstances will permit. Dr. Barnes has informed us that albuminuria at the end of pregnancy is extremely apt to go into puerperal fever. In these cases, therefore, a sedulous watch must be kept, the bowels must be carefully attended to, and other suitable treatment for these cases adopted. The process of parturition should be conducted with the view to the genital canal of the woman being exposed to the effects of irritation, continued pressure, and laceration, as little as may be possible. After the birth of the child, a full and perfect contraction of the uterus should be secured, by seeing that the organ is not emptied too suddenly, and that the hand follows the fundus down from above as its contents are expelled. Subsequently to delivery, the various known methods should be practiced to promote the contraction of the walls of the womb and the diminution of the uterine cavity; and any clots forming should be removed from time to time during the hour after removal of the placenta. It is superfluous to say that the placenta should be extracted in its entirety, when possible; and great care should be taken not to leave any detached portions adherent to the uterine walls. The same precaution should be observed, when practicable, in cases of abortion. If any considerable laceration of the perineum have taken place, the edges of the wound should immediately be united by sutures, not only for the purpose of restoring the perineum, but also to prevent contamination of the wound by putrid discharges. In the case of other wounds in the vagina or cervix uteri, especial care should be taken to keep them clean by repeated injection, and to leave as small a raw surface exposed as may be practicable. In all cases where the lochia are in the least degree offensive, the vagina should be well injected with Condy's fluid and water, or other innocuous disinfectant, twice in twenty-four hours, or oftener if necessary; and the injection may be carried into the uterine cavity, if it be much distended, and there is a suspicion that it harbors fetid contents. The injection of the womb-cavity, however, should be conducted slowly, carefully, and without

force. These uterine injections were practiced long ago by William Harvey, and there is concurrent testimony in this and other countries of their marked utility in abating the symptoms even when puerperal fever has apparently set in.

Next in importance is to take care that there is no fecal accumulation in the bowels, and to recollect that the existence of previous diarrhœa may be the indication that retained masses are lying in the intestines and producing irritation there.

To secure the isolation of a lying-in woman from noxious influences which may be communicated to her from without, may be difficult, and in some cases perhaps impossible. We are all agreed as to the absolute necessity of preventing, directly or indirectly, any communication between cases of erysipelas and puerperal patients. We are agreed, also, as to the necessity of the midwifery practitioner avoiding all postmortem examinations. His hands should avoid all contact with specific poisons or septic materials; and if perchance his fingers have touched anything suspicious, he should at once carefully and thoroughly disinfect them. The necropsies which seem most baneful are of those bodies which have recently died of erysipelas, peritonitis, zymotic disease, or any other inflammatory and febrile affections; and in such instances the accoucheur should not even be present in the room when the dissection is made, as, though he decline to touch, yet his person and clothes may become infected by the poison.

When a medical man has a bad case of puerperal fever in his own practice, or is required to see one in consultation, he should certainly not go direct to another midwifery patient without first changing his clothes, besides careful ablution of his hands.

Many chemical substances have been recommended to be added to water for purifying the hands: iodine, chlorine and its compounds, sulphurous acid, cyanide of potassium, carbolic acid, and the permanganates. It matters not which agent is employed, so long as it is used carefully and efficiently; and if it be necessary to disinfect clothing, this is readily done by exposing it in an oven to a high temperature, for which many upholsterers have a suitable arrangement. Taking all the circumstances into consideration, I am disposed to recommend a week's seclusion after regular attendance has ceased on a single puerperal fever case. When a series of cases have occurred in the practice of any one medical man, he should absent himself from midwifery practice for a month at least. During either the short or the longer interval of seclusion, the means for disinfection should be fully carried out.

Finally, I have a word or two as to the propriety of attending patients suffering from scarlet fever or other zymotic disease, and lying-in women, at the same time. After what has been said in this debate, I cannot expect the same accord of opinion as on other parts of the ground I have gone over; but I would earnestly beg those who have as yet had so favorable an experience, when attending the two sets of patients conjointly, to ponder well what has been said by others on the reverse side of the question. It cannot be expected that men in general practice, who may be in charge of a scarlet-fever or small-pox patient, shall at once relinquish all midwifery practice for the time being, because zymotic diseases are so prevalent that this would practically preclude their attending confinements altogether, or make their attendance on midwifery patients so irregular as to be unreliable. Nevertheless, in view of the dangers which have been indicated by various authorities, albeit their experience may seem to point to different conclusions, they are bound to exercise vigilance, lest perchance they slip into a pitfall unsuspected by them.

NITRATE OF SODA IN DYSENTERY.

The use of this remedy in dysentery is by no means novel, Velsen having recommended it in 1819. Attention has, however, again been called to it, and the dose recommended is from three to six drachms during the twenty-four hours, and amelioration is said to occur the following day. Where the disease is entirely rectal it is more efficacious than where the cæcum is involved.

CEREBRAL RHEUMATISM.

Three cases of this formidable disease, treated by M. Buchut with hydrate of chloral, have recovered. He gave from three to six grammes (= 45 to 90 grains) in divided doses, repeated at frequent intervals until the excitement abated.

SALICYLIC ACID IN DIPHTHERIA.

In children too young to gargle, Dr. Wagner, of Fribourg, gives salicylic acid in water or wine, in doses of ten to thirty centigrammes (about $1\frac{1}{2}$ to $4\frac{3}{4}$ grains) every two hours. For those who are older he prescribes the following gargle:—

Salicylic acid, 150 parts,
Alcohol (to dissolve it), 15 parts,
Distilled water, 150 parts.

To be used every two hours. If the solution deposits any crystals he dissolves them by warming it. He reports fifteen serious cases of diphtheria cured by this method.

HYSTERIA IN THE MALE.

Dr. Foet recommends compression of the testicles. One very severe case was thus relieved "in less than a minute."

PITYRIASIS CAPITIS.

Dr. Malassez recommends the following ointment to be thoroughly rubbed into the scalp morning and evening:—

℞ Butter of cacao,
Castor oil,
Oil of sweet almonds, ăă ʒj.
Turpeth mineral, grs. xv. M.

The hair should be cut short, and the head washed with an alkaline soap every other day.

ATOMY OF THE INTESTINAL TRACT.

Dr. R. McSherry has found the following prescription give signal relief in cases of torpor of the large and small intestines.

R. Fl. ext secal. cornut. ℥ vij
Acid phosphor, dilut., ℥ j. M.

Teaspoonful three times a day. The phosphoric acid heightens the effect of the ergot.

POST-PARTUM PILL.

At Bellevue Hospital the following has a popular hospital reputation as a substitute for the regulation dose of castor-oil after parturition;

℞. Ext. colocynth comp., . . } āā ʒ iij;
Hydrarg. submuriat., . . }
Ext. nucis vom., ... }
Pulv. aloes, ... } āā grs. xx.
Pulv. ipecac, ... }

M. et div. in pil No. 120. One to four to be taken at a dose.—*The Medical Record.*

TREATMEMT OF HERPES ZOSTER BY INDUCED CURRENTS.

Dr Fanque recommends the use of induced currents in the treatment of zoster, which is now generally admitted to be of nervous origin.

He recommends that the positive pole be placed upon the vertebral column while the negative pole is placed upon the affected portion of skin.—*Ibid.*

TRUE MEMBRANOUS CROUP—ITS TREATMENT.

Dr. W. H. Vail (*N. Y. Medical Journal* Oct., 1875) believes from his experience that true membranous croup is as amenable to treatment as remittent fever. He first gives his patient from fifteen to thirty grains of calomel, to be repeated in six hours if the bowels do not move. At the same time the patient must be kept in a room loaded with moisture, and heated to a temperature of 90° Fahr., constantly.

COTTON WOOL IN THE EARS AS A PROPHYLACTIC AND CURATIVE APPLICATION IN CORYZA AND SORE THROAT.

A correspondent to the *Practitioner*, February, 1875, says that, though specially subject to colds of unusually severe and oppressive character, he has for seven years been able to stave them off by the judicious use of cotton wool in his ears. Only the side of the nose or throat affected or exposed need be protected. The beneficial effects are most marked in persons with a large meatus, or a thin, delicate ear. Sore throats and colds on the chest are greatly benefited by its use. If it be remembered that irritation deep in the meatus will produce irritation and congestion of the throat, it will be easy to see the relation between the throat and external meatus, and how cold in air in the external meatus may produce a sore throat. Protect your ears from continued cold winds or drafts is the plain teaching of the above facts.—*Detroit Med. Review.*

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MEDICAL LEGISLATION.

In the December number of the *Record*, we published an article with reference to a Medical Bill, which was introduced into the Quebec Legislature by the Hon. Mr. Chapleau, and which was dropped at its second reading. We commented freely upon the extraordinary spectacle of a few members of the profession—whom we styled ultra-reformers—attempting to forestall amendments to the present Medical Act, which they knew were in process of preparation by the constituted Medical Authorities of the Province. We likewise expressed our abhorrence of the barefaced attempt to legislate out of existence the College of Physicians and Surgeons of Lower Canada. Our remarks have given rise to the following letter from Dr. Dagenais, which appears in the *L'Union Medicale du Canada* for January. Several of our subscribers who, we learn, have been active promoters of this Bill, have likewise notified us "*to stop their paper*"—a very silly method of attempting to stifle discussion:

CORRESPONDENCE.

Mr. the Editor,—Having no time to lose, I never read the *Canada Medical Record;* but a friend having given me the last number of that journal, I read an article on the *Medical Bill*, presented during the last session by the Hon. J. A. Chapleau, which I cannot allow to pass unanswered. Mr. the Editor of the *Medical Record* warns his readers that he can hardly read the bill in question without losing his temper, which was an unnecessary precaution, because it was evident that his brain must have been in a state of great excitement to have allowed him to have written so many untruths and impertinences, in so few lines.

He commences by saying that the *Bill* is the work of half a dozen Drs.—dreamers and ultra reformers—first untruth, (or fib). The Bill was made by the Medical Society of Montreal, having

eighty members, whose positions are at least as good as that of the Editor of the *Medical Record*, and it was only after having studied the subject for a very long time, and after having taken the advice and opinion of one of the most distinguished advocates, that the Society presented the Bill before the Quebec House. Since, Mr. the Editor continues to say, that the Bill should have been choked in its first reading, and that it was allowed to drop after its second reading—a second untruth. The Bill has not been dropped, Mr. the Editor of the *Medical Record*, and do not be vexatious (*i. e.* troublesome) it will come up next session. If its adoption has not been pressed this year, it is because we did not wish to take the profession by surprise, and that we did not wish to attempt hasty legislation, on a subject of such importance. We desire to have a free and upright discussion, between now and the opening of the next session. I hope that we may get it.

Further, Mr. the Editor of the *Medical Record* complains that the Bill is too complicated, and he assumes that a man of ordinary ability should read it a dozen times to understand it, and that, notwithstanding that the Bill was based (a transcript) on that of the advocates, and also on that of the notaries, each containing a greater number of clauses than the Medical Bill, it has not yet come to the mind of any advocate, or the mind of any notary, to complain that the bills concerning their professions were too complicated. Perhaps Messieurs the advocates and Messieurs the notaries have twelve times more intelligence than Mr. the Editor of the *Medical Record*.

As a last resource Mr. the Editor of the *Medical Record* takes advantage of a typographical error that he finds in the English copy of the Bill, I will not answer to this last piece of foolery, but only say, *en passant*, that he must have been very short of arguments, to have recourse to such means.

I stop here, Mr. the Editor, my answer to the article in the *Canada Medical Record*, reserving, with your kind permission, the right of replying, in a manner more becoming, in the *L'Union Medicale*, when I have to answer adversaries of more importance.

Signed, A. Dagenais, M.D.

We propose dealing with the principal points of this letter, seriatim. And first, we have to regret that Dr. Dagenais has committed to writing such a silly sentence as the very first one in his letter. "*No time to lose, therefore does not read the Record.*" Happy Dagenais, to be so fully occupied. We, however, fear that his judgment of the value of medical literature can hardly be a good one, influenced, as it is, not by the practical character of a journal's contents, but by the appearance of a political article which rubs him all the wrong way. Dr. Dagenais finds fault with us for saying that the Bill was the work of a half-dozen dreamers, and asserts that it was made by the Medical Society of Montreal, which numbers eighty members. We reply that our information was received from members of the very Society whose authority is invoked, and who still assure us that this Society, composed of our French Medical brethren, cannot be held liable for this Bill; and in proof of this we have names given us of prominent members not only of the Society, but of the French Medical profession, who were entirely ignorant of this so-called action of this Society. Surely our correspondent will admit the prominence in both the above respects, of our friend Dr. Rottot. Was he aware of the proposed Bill? On the contrary, was he not working on his own Bill, for presentation before the College of Physicians and Surgeons, and was he not constantly in communication with some of the leading spirits in this attempted movement—who, while they willingly supplied him with their views, never informed him that they were preparing a Bill themselves, with which they proposed suddenly to astonish the profession. The relative professional positions of the eighty members of this Society, as compared with that of the Editor of this journal, has nothing to do with the subject under discussion, and the introduction of such a remark is, in our opinion, in exceeding bad taste. We are glad, however, that Dr. Dagenais has at last boldly come forward and thrown down the gauntlet, which he does when he tells us that this Medical bill has not been dropped, but that it will come up next session. We now know with whom we have to deal, for we confess that, till very lately, it was impossible to find who were the originators and promoters of this Bill. The profession of this Province are not the mettle we take them for, if they quietly submit to have a body legislated out of existence, which has many faults we admit, but which, notwithstanding these, has done very much for the profession in Lower Canada. We do not see that Dr. Dagenais has satisfactorily answered our complaint as to the complicated character of the Bill. He seems to think that, because it is a copy or transcript of that for the advocates and notaries, only less voluminous, it must

be simplicity itself. Now we fail to see the force of this argument; indeed, it seems to be a pretty generally admitted that "law is what no fellah can understand." At all events, we think medical men, never having received a legal education, would make generally poor work at understanding legal documents, and Dr. Dagenais' pet Bill has *too much law* about it. As to the advocates and the notaries having twelve times the intelligence of the Editor of the *Record*, we are proud to know it they are accountable for such an excess of brains; and our only regret is that our correspondent, Dr. Dagenais, does not belong to either the legal or notarial profession. He is one of the very few men who claim to understand this Bill, and therefore he must feel that such an amount of intelligence as has fallen to his lot should not hide itself in such an humble profession as that of medicine.

NUTS FOR THE ANTI-VACCINATIONISTS.

Dr. Purdon, factory medical officer at Belfast, has lately published a report on the subject of vaccination in relation to that populous manufacturing town. During the epidemic of 1871, Dr. Baker, one of the inspectors of factories, stated that the directions issued by the Poor-law Board were insufficient to stop the spread of the disease, and, in consequence, was requested by the Secretary of State to draw up a circular for the use of certifying surgeons, suggesting an examination with the purpose of vaccinating every young person under 16 applying for work; and recommending that employers should make vaccination a condition for employment. The result of these judicious measures has been that, since these directions were issued, 1,000 young persons were vaccinated who had not previously undergone the operation, and at the present time from two to four of those seeking work require to be vaccinated every week. This compulsory vaccination has been of considerable service; for example, in one mill in 1871 there had been 150 cases of small-pox, but in 1874 there were only 10, all being adults. In 1871, the persons employed in mills, factories, workrooms, etc., numbered 44,318, and of these 837 were attacked by small-pox; but, in 1874, out of 48,650 *employés*, only 176 were affected, 39 of whom were young persons. Stronger evidence than this could hardly be adduced of the benefits of compulsory vaccination.

A Dr. Toscani has also published a very elaborate report on a recent epidemic of small-pox in Rome, Italy. From it we learn that of 3,149 persons attacked, 1,219 died. The mortality among the vaccinated was 72, or 13.81 per cent., and among those not vaccinated 1065, or 46.61. In 339 cases no positive evidence whether vaccination had been performed could be obtained, and the mortality was here 82, or 24.30 per cent. After this, anti-vaccination leagues, we need hardly say, have no foothold in Rome.

CHILBLAINS AND CHAPPED HANDS.

The returning cold, damp weather brings in its train the seasonable series of complaints, such as chilblains, chapped hands and lips, &c. These appear to be most prevalent just now, amongst those exposed to the inclemency of changeable weather, who possess a fair complexion, delicate skin, and other constitutional predispositions. To those specially liable to these tiresome and painful affections, we recommend as a preventative wearing kid skin gloves lined with wool, which not only keep out the cold, but absorb any moisture that may be upon the hands; and to rub over the hands before washing a small quantity of glycerine, which should be allowed to dry or become absorbed to a partial extent. When chilblains do manifest themselves, the best remedy not only for preventing them ulcerating, but overcoming the tingling, itching pain and stimulating the circulation of the part to healthy action, is the liniment of belladonna (two drachms), the liniment of aconite (one drachm), carbolic acid (ten drops), collodion flexile (one ounce), painted with a camel's-hair pencil over their surface. When the chilblains vesicate, ulcerate, or slough, it is better to omit the aconite, and apply the other components of the liniment without it. The collodion flexile forms a coating or protecting film, which excludes the air, whilst the sedative liniments allay the irritation, generally of no trivial nature. For chapped hands, we advise the free use of glycerine and good olive oil in the proportion of two parts of the former to four of the latter; after this has been well rubbed into the hands and allowed to remain for a little time, and the hands subsequently washed with Castile soap and tepid water, we recommend the belladonna and collodion flexile to be painted, and the protective film allowed to permanently remain. These complaints not unfrequently invade persons of languid circulation and relaxed habit, who should be put on a generous regimen and treated with ferruginous tonics. Obstinate cases are occasionally met with which no local application will remedy until some disordered state of system is removed

the general condition of the patient's health improved. Chapped lips are also benefited by the stimulating form of application we advocate, but the aconite must not be allowed to get on the lips or a disagreeable tingling results.—*Dublin Medical Press.*

OBITUARY.

Just as we are going to press we learn of the death, at his residence in London, Eng., of Sir George Duncan Gibb, Bart. His many old friends in Montreal, where he received his medical education and formerly resided, will read this announcement with deep regret.

We learn from the *L'Union Medicale du Canada*, that Dr. E. Lemire died in the latter part of December last, at Watertown, U.S., aged 37 years. Dr. Lemire studied at the French Medical School in Montreal, and received his license frem the College of Physicians and Surgeons of Lower Canada, in 1858. He followed the practice of his profession in Montreal for several years, with fair success, taking an active part in various Catholic medical charities, and for a short time being connected with French Canadian Medical journalism. In 1865, in conjunction with the late Dr. Squire, he was elected Secretary of the Medico-Chirurgical Society of Montreal, which post he filled for rather more than a year.

On the 18th of January, Andrew W. Hamilton, M.D., of Melbourne, Eastern Townships, died after a brief illness, from congestion of the lungs. He was a graduate of McGill University, 1858, and was, previous to his graduation, for a year, the Resident Apothecary to the Montreal General Hospital. About 1859, he settled in Melbourne, and rapidly acquired a most extensive practice, which he continued to follow up to the time when seized with his last illness. Dr. Hamilton was one of the Governors of the College of Physicians and Surgeons of the Province of Quebec, and was active in looking after its interests. He was the son of Dr. James Hamilton, of Dundas, Ont., who still survives him.

PERSONAL.

Dr. O'Rielly, (M.D., McGill College, 1867,) who for some time was resident Physician to the Hamilton Hospital, has been appointed Medical Superintendent of the Toronto General Hospital. Previous to leaving Hamilton he was entertained at dinner by the Mayor and Aldermen of that city, and received a testimonial in the shape of a service of plate. We congratulate Dr. O'Rielly, on this gratifying exhibition of the estimation in which he is held.

We are pleased to announce that Dr. James Perrigo, M.R.C.S., Eng., Professor of Medical Jurisprudence in Bishop's College, has been invited to accept the post of Honorary Local Secretary to the Obstetrical Society of London. Dr. Perrigo has signified his acceptance.

Dr. T. Johnson Alloway has been elected one of the Attending Physicians to the Montreal Dispensary.

Dr. W. B. Burland, of Montreal, (M.D., C.M., McGill College, 1872), has been appointed Assistant Surgeon to the 5th Battalion Volunteer Militia (Royal Fusileers.)

The Hon. Dr. Church, late Attorney General for the Province of Quebec, has, in the reconstruction of the Hon. Mr. De Boucherville's Ministry, assumed the portfolio of Provincial Treasurer, vacant by the resignation of the Hon. Mr. Robertson.

Robert W. W. Carroll (M.D., McGill College, 1859) is a Senator for British Columbia.

Dr. George Stanton (late of Simcoe, Ont., and M.D. of McGill College, 1868) has just been appointed Manager and Resident Medical Officer of the St. George's Church Temperance Home, which is situated a short distance beyond the limits of the City of Montreal. We believe Dr. Stanton has many qualifications which fit him for the very responsible position which he has assumed, and we hope that he will be given every possible countenance and encouragement from those who desire that this "home" shall be a success.

Dr. William Gardner having resigned his position on the Attending Staff of the Montreal Dispensary, has been placed on the Consulting Staff. A cordial vote of thanks was given to Dr. Gardner for his services.

The many friends of Dr. Kennedy, of Montreal, will learn with pleasure that his sojourn in Colorado has already been exceedingly beneficial to him, and that he anticipates returning home about the first week in May.

BIRTH.

In Montreal on the 27th ult., the wife of J. B. McConnell C.M., M.D, Professor of Botany, University of Bishops College, of a daughter.

MARRIAGE.

On the 28th Feb., at the Bishop's Palace, in the City of Montreal, by Canon Dufresne, Mr. Richard Gords, of the City of Wanego, State of Kansas, to Miss Adele Amelia Gernon, second daughter of Dr. Gernon, of St. Jean Chrysostome. The happy couple left, after the ceremony was performed, on a pleasure trip to the City of Chicago.

DIED.

At Kingston, on the 18th December, 1875, Dr. James Meaghar, aged 61 years.

Dr. Meaghar pursued his Medical studies in Montreal at the same time as Dr. Joseph Workman, of Toronto, Dr. David, of Montreal, and the late Dr. Sutherland. Dr. M. was a man of high attainments and of a genial disposition

Original Communications.

Remarks on Club Foot. By WILLIAM H. HINGSTON, M.D., L.R.C.S.E., &c., Surgeon St. Patrick's Department Hotel Dieu Hospital, Montreal. Read before the Medico-Chirurgical Society of Montreal, March 24th, 1876.

Club foot is met with as a congenital and a non-congenital affection.

As a congenital affection—moulded and fashioned in the mother's womb; as a non-congenital one,—arising from some early disturbance of the prima via; some disturbance of the nervous centre; some irritation at the peripheræ.

The non-congenital are said by writers to be the more frequent, and tabulated reports average them as three to one in frequency. I give the statement, though my own experience does not corroborate it. The degree of deformity varies as the kind—sometimes so slight as to pass without notice; this is very frequent. Sometimes the deformity is such that the foot may be strongly inverted or everted—the foot itself so shortened that the toes are necessary at the end of shortened legs to show that a foot was intended.

The four varieties of club foot are well-known to you: Equinus; Varus; Valgus; and Calcaneus: and the four sub-varieties, Equino Varus; E. Valgus, Calcaneo Varus; C. Valgus.

The immediate causes of Talipes, of whatever form or degree, whether intra-uterine or occurring after birth, are the same—"alterations in the relative position of the bones, in consequence of irregular muscular action, position, pressure, &c." The *remote* cause is often matter of conjecture.

Irregular muscular action occurs, methinks, most frequently *after* birth, but the deformity arising from malposition, or from pressure, occurs most frequently during intra-uterine life.

The belief that deformities arise from arrest of development in the bones themselves is no longer tenable, although it still serves as an excuse for the non-fulfilment of a rashly-made promise of perfect cure.

It is not my intention to enter at all into the question of non-genital Talipes. Far more than I could give may be found in any systematic work on Club Foot. Nor is it my intention to speak of the various contrivances which have been, and are still, used to remedy this deformity. My object is to speak of certain rules of practice observed by writers, and to suggest such modifications of them as I have been led to adopt in hospital and private practice.

As they relate to operative interference in congenital cases, I may premise them by stating that medical practitioners are oftentimes deterred from resorting to the *tenotome* by a dread of something untoward, something unpleasant which might, and which does sometimes occur. Let us analyse these, and what are the inconveniences of a character to deter that may arise from the division of a tendon?

1st. The irritation of the wound; but this is so slight, so insignificant, as to be readily healed.

2nd. Hæmorrhage. Since my first case in 1854 I have never had loss of blood to the extent of twenty drops; rarely half that quantity; commonly but one, two or three drops.

3rd. Inflammation—But this can only arise in clumsily performed operations, either from forcibly bruising the part while holding it, or from an unclean knife, or from the unnecessary admission of air.

4th. Non-union of the divided ends of the tendon. It is the dread of this contingency which deters many from resorting to a really harmless procedure. I have seen but one instance of a non-united tendon after tenotomy—and *not* the mode of its performance—*not* any peculiar diathesis in the child—*not* any indisposition to pour out, in and around the cut ends, the needful blastematous material; but the simple fact that the cut ends were at once separated, and kept too widely asunder, by some mechanical contrivance.

5th Adhesion after the opertion to adjacent structures.

If the non-uniting of a tendon is, as I have just said, due to meddlesomeness, or clumsiness, *after* the operation, adhesions to adjacent structures are mainly, if not altogether, due to the *mode* of operating. If the skin over the tendon be wounded in more than one place; if, in addition to a puncture at entering, and another at a point opposite, where there should be none, the skin be shaved or split, as sometimes happens, adhesions will probably occur. If, in addition, a very sharp instrument be used, and the tendon, with its investing sheath, be cut cleanly through, then adhesions will almost certainly occur, and adhesions of a character, perhaps, to interfere with the free play of the divided tendons. If, on the other hand, the knife be insufficiently sharp and the surrounding tissues be much handled and disturbed the same result may follow. But this cannot be regarded as a reason for not operating any more than should the puncturing of a flap, the irregular

sawing of a bone, or the insufficiency of integument left to cover it, be considered a reason for not performing an amputation.

As I shall have occasion, in a moment or two, to speak of the *time* when operations should be performed, I may here remark, *en passant*, that not only is the union of a tendon perfect in proportion to the tender age of the patient, but also that adhesions to surrounding structures are weak and insignificant in the same direct ratio.

The adhesions which sometimes take place between the cut ends of a tendon and the sheath, are confined, for the most part, to the tendon of the tibialis-posticus, and even then only when the division has been made at the malleolus.

The Period for Operating.—This, gentlemen, is the real subject of my paper. It was this portion, and this portion alone, I had in view when I consented, at the request of the Secretary, to read a paper before you this evening.

I suppose every member of this Society has made up his mind when to, and when not to operate; when he will trust to mechanical appliances; when to physiological treatment; and when he will not trust to one or both of those, but resort to operative treatment.

Thus, no one would think of operating when, although there may be more or less of the varus variety of the deformity at birth (as if arising from mal-position, when the Liquor Amnii was deficient,) a little manipulation suffices for its removal. In such cases there are no structural changes; the heel can be brought down; the foot may be put in situ and even everted, and maintained thus without difficulty, the soft hand of the nurse sufficing, and without pain to the infant. But when the foot cannot be restored to its natural form or position without difficulty; when the heel refuses to be brought quite down, or the foot to be everted, so that the inner malleolus may become prominent; when the os calcis cannot be sufficiently depressed—or if when depressed, the ankle-joint cannot be flexed, operative treatment is necessary. And this brings me to that to which I wish specially to draw your attention.

The necessity for operating being established in the practitioner's mind, when should tenotomy be performed? "Wait till the tendons are more prominent," says one. "Wait till there is less adipose tissue in the way," says another. "Wait till the foot can bear the pressure of the boot," says a third. "Wait till we see what a Scarpa shoe, or tin splint, or caoutchouc boot and leg can effect," say others who hope to gain by the handiwork of the mechanic more than the hand of the surgeon can effect. "Operate early" say some, and with the latter I agree, for the "earlier tenotomy is performed, and the more quickly all the muscles of the limb are brought into action, and the greater will be the muscular development."

The disadvantages of operating early have been already mentioned. The disadvantages of not operating early are many.

In T. equinus as in talipes varus, the gastrocnemius and soleus may, at birth, be alone contracted. But the plantaris is soon drawn in; afterwards the flexor pollicis and the plantar fascia; and afterwards, but long afterwards, the deeper muscles of the leg and foot. In talipes equinus the tuberosity of the os calcis is raised by their contraction—but easily depressed—after tenotomy. After a time, however, when the upper surface of the calcis impinges upon the posterior margin of the articulating surface of the tibia, the astragalus is thrust forwards and downwards; both bones are consequently *hors de place*, and their facets changed. Shortening of the ligaments of the sole of the foot takes place; the foot, which at first was straight, becomes bent upon itself, as it were, by being depressed at the transverse tarsal joint; and if the operation be delayed till the patient is old enough to walk, the weight of the body is thrown upon the extremities of the metatarsal bones.

As to the ligaments, Mr. Adams says: "The ligaments in front of the ankle joint, and on the dorsal aspect of the foot—especially the ligament between the astragalus and navicular bone—are found to be elongated in proportion to the degree and duration of the deformity; whilst those on the plantar aspect of the foot are contracted and shortened to a corresponding extent." The anterior portions of the lateral ligaments become elongated, and the posterior shortened.

Even should paralysis coexist, the necessity for early treatment is the same. "Structural changes in the joint, such as thinning and irregular removal of articular cartilage," "and adapted shortening of the ligaments of the joint, take place by the continuance of the deformity, thus rendering the case more difficult in proportion to the delay."

In that more common, yet more complicated form, talipes varus, the muscles at birth are healthy and well developed; but they do not continue to grow as those of the other limb. Muscular development is more or less arrested at birth. Not these alone upon the contraction of which the deformity depends

but sometimes all the muscles of the leg and foot. Sometimes, indeed, the muscular structure is wanting, and fibrous and adipose tissue supply the place.

Dr. Little believes "that the deficiency or atrophy and degeneration of muscles is in a precise ratio to the extent of the deformity, and the earliness of the uterine existence at which the deformity is produced."

Mr. Adams was impressed with the inadvisability of allowing the deformity to continue, when he said: "The longer the deformity remains uncured the less will be the ultimate size of the muscles of the leg, and, therefore, on this account, I strongly advise early operation."

The ligaments at birth give little or no trouble; but soon after birth they sometimes offer serious obstacles to the removal of deformity. They adapt themselves to the abnormal position of the bones, becoming thinned and lengthened where the tension is greatest, and perhaps contracted where it is least.

Many of the bones are altered in position, if not in form; notably the calcis, which may early assume an oblique position; and the astragalus, which is tilted forwards and downwards.

Time will not permit me to speak of the other tarsal bones, but this much I shall say, that the changes observed in the tarsal bones are changes of *position* rather than of form; and the changes of form, ultimately observed, are due largely to long-continued faulty position.

To come back, then, to the question: When should the operation be performed? I regret to observe so great a diversity of opinion among those so competent to speak. Formerly I shared the opinion of Mr. Lizars, who taught that "two or three years of age is that at which the division should be attempted." Mr. Lizars said he preferred "three years." Others preferred the beginning of the second year, when the child has learned, or is learning to walk. Dr. Little, who had submitted to the operation at the hands of Stromeyer, thought not under six or eight months. Mr. Syme, when the patient could run about, as he was permitted to do on the second or third day.

I have come to regard all this advice as erroneous. Why wait till the muscles have become atrophied, perhaps changed in structure? till the ligaments are thinner at one edge, thicker at the other? till the cartilages are partly changed? till the plantar fascia, becomes contracted, which at first is usually but little? till the facets of the bones are changed? and the position of the bones themselves permanently altered?

When, then, should the operation be performed? Gentlemen, there are two operations in surgery which should, methinks, be performed before the child has been seen by its mother, before, in fact the infant has had an hour's breathing existence; the one, the operatoin for hare-lip—the other that for club foot. The satisfaction I may have had from performing these operations has been in proportion to the early period at which they had been performed; for I have found that the earlier the more successful, and the more successful the more satisfactory.

Having disposed of this part of the subject, there is another question of much moment in the operative treatment of club foot. Tenotomy is performed--what then? Should the foot be at once extended and kept extended after tenotomy or not? I have asked two questions at once; but shall answer them separately. As to the first, the foot should be at once extended to enable us to ascertain if the division already performed suffices for the removal of the deformity; and that ascertained—notwithstanding the advice of Miller, Syme and Gross to the contrary—I should, unless in exceptional cases, urge gradual extension as did Stromeyer and Delpech. I spoke just now of exceptional cases; by these I mean those somewhat unusual cases in which, after the division of the faulty tendon or tendons, the foot can be carried easily back, not only to its normal position, but much beyond.

I purposed saying a few words on the order of division of the tendons in the various forms of club foot, but Mr. Adams has left nothing to be said on this part of the subject. I can, therefore, but echo what he has said. Even this much, however, is foreign to my purpose, which was and is to urge upon you not to delay the performance of tenotomy in cases where the operation is clearly indicated; but to operate at the earliest possible moment. An American surgeon, Mr. Sayre, I think, said that the accoucheur is not warranted in delaying longer than is necessary to wash his hands before operating! This is scarcely an exaggeration, though it may appear as such. I should be generous enough, however, to allow the accoucher time, but no more, to look over his anatomical plates and to see what to divide and what to avoid; or to invite the co-operation of a confrère more familiar with the work than himself.

CASES IN PRACTICE.

Communicated by Dr. Carr H. Roberts, of Salisbury, England, &c., &c.

E. Edwards, æt. 41, admitted into sick ward of Union House, 3rd June, 1875, thin, spare, tall, has

been fireman on board of passenger steamer all his lifetime, family history good, and he himself has always enjoyed very good health until the present attack; states his habits to have been always of a temperate nature, very much more so than most of his class, and one has every reason to believe his statements, as after-events proved that he is very intelligent and far above the average in his state of society; was attempting to make his way on foot from Southampton to Bristol, the weather being intensely hot, when he was suddenly taken with his present seizure. When admitted, his *right* eye was completely closed, with total inability to spontaneously elevate the lid. There was total loss both of sensibility and of muscular power of the *left arm and leg*. There was nothing the matter with the *left eye or lids*. I should have said that the sight of the *right* eye was very cloudy and misty, his tongue being very coated and dirty, and his breath extremely offensive, and, remembering a maxim that was early instilled into me by my first teacher, Mr. Ord. F.R.C.S.E., of Brixton, to "always in the first instance pay attention to the main drainage," the patient was, for the first week, indulged every other night with a couple of pills containing hyd. chlor. gr. iij. and pil. col. co. gr. viij, and on each subsequent morning half oz. of sulphate of magnesia. At the end of that time the condition of his stomach and bowels being manifestly very much improved, he was placed upon plain but nourishing diet, eggs, beef tea, milk, soups, mutton chops and rump steaks, etc., etc., with half a pint of stout twice daily. A blister was placed at the back of the right ear; a seton at the back of the neck; he was ordered to be galvanized every night and morning with an ordinary machine, the shock to be at first slightly administered (down the spine) and to be increased by degrees to the fullest extent; a hypodermic injection of the sixtieth part of a grain of strychnine was given every morning, and he was also ordered a grain of quinine and five drops of liq. ferri perchloride, three times daily. This treatment was commenced on the 10th of June, discontinued on the 17th for twenty-four hours, when his pills were given at night and his half ounce of mag. sul. in the morning, and this latter has been given him with very rare exceptions every week or ten days, during the whole time. On the 20th of June, a blister was applied on the right temple, the dose of quinine was increased to two grains thrice daily, and he was given the fiftieth part of a grain of strychnine as a hypodermic injection; on the 30th of June the latter was increased to the fortieth of a grain; on the 30th of July it was increased to the thirtieth; on the 20th of August the twentieth of a grain was injected; and on the 10th of September, the tenth of a grain was injected, and continued for three days, when rather violent tetanic convulsions made their appearance for the first time, and the injections were discontinued. Up to this date, improvement, except as regards his general health, had not been perceptible, and the case looked almost hopeless, and the governors began to have serious thoughts of passing him to his native place, as an incurable case; but the patient begged very hard to be tried, as he said, "a little longer, for he thought there was a good time coming, if we would only wait a little longer." I, also, was loth to lose sight of the case, it being a very interesting one, the man being very intelligent, very grateful, and most anxious to get better. Consequently, on the 15th of September, instead of the hypodermic injections, I gave him the sixtieth of a grain of strychnine for a dose in conjunction with his quinine and iron, three times daily. The seton caused him such intense pain that it was removed, and blisters were applied to the arm, the leg, and the back. The galvanism, which had never been discontinued all down the spine, he was now able to bear to its fullest extent. On the 20th of October, a manifest improvement. About the 15th of November a pair of crutches was procured for him, a large broad band was passed round his neck and under his foot, and, with an attendant on each side of him, he managed to hobble up and down the ward. On the 20th of December he was able to stand alone on his crutches, and, by getting hold of the band, was able to drag his leg and slide his foot along from one place to another. Up to the present time, March, 1876, his progress has been very slow, yet most marked, and his present state is; perfect use of the lid of, and sight of, the affected eye, almost perfect use of the arm, and he has considerable power with the leg, which he can now drag along without touching the band. The dose of strychnine has been gradually increased until, at the present time, he is taking the twelfth of a grain twice daily, in conjunction with the liq. ferri. (The quinine was discontinued in December, on account of his having pain in his head, but I think that was more likely occasioned by want of sleep from some phthisical patients in the same ward, but as he appeared to progress so favorably I did not resume it.) Every now and then at irregular intervals, tetanic spasms occur, the strychnine is then discontinued, but he has always

recommenced with the same dose he left off with, and that dose, as I said before, has been slowly increased to the present date; the galvanism he still continues, and is now engaged in making me a set of chessmen, which he manufactures with an ordinary knife and file out of the bones of the meat from which the soup is made for the inmates. Had he not been as intelligent as he is, I could not have trusted him to continue and discontinue the use of so powerful a drug, in the way that I did do. The case is a useful illustration of the benefit of strychnine combined with iron, in these cases; and the truth of the old motto, "Nil desperandum." My patient is very proud on hearing that his case is to be made the subject of a paper, and hopes that in a very short time *his* good time is coming, for which he has so patiently waited a little longer. I hope in a little time to be able to give a final and favorable report of the result.

March 7th, 1876.

Mary Palmer, residing at a village three miles off, æt. 74, stout and having always enjoyed good health, was seized with a fit on the 14th March, 1875, and laid perfectly insensible for four days, her stertorous breathing alone showing that she was alive; being unable to swallow anything, the only treatment that could be adopted was the occasional administration of five grains of calomel placed on the tongue, and mustard to the calves and soles of the feet. To my great astonishment she recovered consciousness on the fifth day, and it was found that she had completely lost the use, but not the sensibility, of her right arm and leg. I put a seton in the back of her neck, and, after purging her very freely, gave her the sixtieth part of a grain of strychnine, twice daily, with nothing else; as she lived that distance from me I was always afraid to increase the dose, especially as I was unable to trust the old lady, but not being very fond of medicine she would only take it at very irregular intervals, so that there has not been much fear of the peculiar cumulative action of the strychnine being exhibited. The seton was taken out and a fresh one (which is in still) put in about three months since; the ancient dame is able to get about now with a stick and do a little knitting.

March, 1876.

My notes on the case of John Fletcher, communicated in your February number, were accidentally not completed. I should have said that he was admitted to the Infirmary, and died the following day. No fresh symptoms occurred, and the most careful examination failed to detect any other symptoms of hernia than those already mentioned. All his friends being unwilling, it was impossible, although urgently requested, to get a post mortem.

John E., æt. 41, commonly called "Alderbury Jack," a short spare fellow of somewhat weak intellect, whom the lower class of people here were very fond of giving beer to, until he was intoxicated, and then playing tricks with and making game of him, was found lying dead on the pathway leading to his home, by the side of a running stream, which was not fenced or protected in any way. Two young fellows were proved to have been seen with him last, and to have been told to leave him alone. It was a bitterly cold night, that of the 21st of January, 1876, and when found about six in the morning of the 22nd, his body was found frozen to the ground, his hat was carefully deposited by his side, his clothes were completely saturated, and a few yards off there were marks on the bank as if a heavy body had been dragged up, not as if a man had tumbled in and scrambled out again. The following are my notes of the post mortem which I was directed by the Coroner to make. Body fairly well nourished. *Externally*, several abrasions about face, head and hands, which latter were tightly clenched and full of gravel; clothes and body very wet. *Brain* small but quite normal and healthy. *Lungs* slightly diseased, a considerable amount of pleuritic adhesions. *Stomach* contained only about a tablespoonful of a liquid smelling and looking like undigested beer. Bowels contained a little flatus, but not a particle of fæces. *Liver* and *kidneys* were healthy, but the heart was very much diseased and almost empty. Double scrotal congenital hernia. There was no doubt that deceased had either fallen, or, more likely, been pushed into the water, dragged out again, and, finding that he was insensible, left on the bank to be found by the next passer by. A good deal of evidence was given by various people, of cries for help, etc., etc., being heard, but, as that is unfortunately a common occurrence about twelve o'clock on a Saturday night, no attention was paid, more especially as they soon ceased. The parties were examined by the Coroner, but, of course, were not likely to criminate themselves, consequently, an open verdict was returned, that "Deceased came by his death from immersion in the water and subsequent exposure on such a bitterly cold night, but how he came to be in the water there was no evidence to show." I do not suppose there was any "malice prepense," but that it was done for a "lark." The old fable of the boys and the frogs once more exemplified.

Progress of Medical Science.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, March 16th, 1876.

Dr. S. S. Purple, President, in the Chair.

THE TREATMENT OF DIPHTHERIA.

The object of the paper read upon the above subject by Dr. C. E. Billington was, to contribute to the proof of the doctrine that the primary disease was a local affection and the source of constitutional manifestations. The doctor admitted that there were many cases which seemed difficult to explain upon this theory, but claimed that the exceptions were too few to weigh against that doctrine, which he couched under three heads:

1st. In the great majority of constitutional cases which have been under his observation, the local affections have been much more severe than in the other class of cases;

2d. The constitutional disease, as he had seen it, had been, not antecedent to, but consequent upon the local affection;

3d. The results of treatment on the principal of local disinfection strongly confirmed this view. The paper was based on observations made in 300 cases, of which 150 were under his own care; and the great majority of all the cases occurred in patients under 12 years of age.

Three elements entered into the study of the treatment of that affection:

1. Contagion; 2. Inflammation, and the formation of the pathological exudation and the accompanying nerve irritation, symptomatic fever, etc.; 3. The resulting specific and septic poisoning.

The indications in the treatment were, 1, to destroy the contagion; 2, to subdue the inflammation, which was most effectually done by removing its cause; and 3, to combat the absorption of the poisonous element from the spot at which the local disease was manifested.

Failing in these essentials, constitutional remedies were useless. In other words, local disinfection was the proper treatment for diphtheria. The physician should aim to destroy the poisonous exudation and fluids; but, at the same time, should exercise the utmost care, and not irritate the part affected.

That gave rise to two questions:

1. What were the best medicinal agents that could be employed for that purpose?

2. What was the best method of employing them?

The tincture of the chloride of iron was placed at the head of the list of remedies to be used as local disinfectants; and it also possessed other properties, which justly commended it as an agent to be employed in the treatment of diphtheria.

Lime-water, glycerine, chlorate of potash, carbolic and salicylic acid, and sulphite of soda were also mentioned in this connection.

With regard to the manner of employing these remedies for the purpose of obtaining their disinfectant influence, Dr. Billington recommended their internal use rather than topical application by means of a camel's-hair brush, sponges, etc. By that, however, he did not wish to exclude spray and the local use of remedies by means of the soft brush, for these means might be employed in certain cases with great benefit; but they should be used with the utmost care, lest a mechanical irritation should be produced. The following prescriptions were given:

℞ Tinct. ferri perchloridi..... ʒ iss.
Glycerini,
Aquæ, ā ā ..... ʒ i.
M.

A teaspoonful to be given every two hours. For children under two years of age, one drachm of the iron was a sufficient quantity to enter into the prescription. When vomiting was a troublesome symptom, it sometimes became necessary to omit this mixture.

It was also recommended to administer teaspoonful doses of the following mixture, every two hours—that is, alternate with the above; but the administration should come after an interval of thirty minutes.

℞ Potassæ chloratis..... ʒ ss.
Glycerini..... ʒ iij.
Liquoris calcis, ad..... ʒ iij.
M.

The frequency of this dose was insisted upon by Dr. Billington as an item of very great importance.

It was also recommended to give teaspoonful doses of the following mixture, in addition to those already prescribed.

℞ Acidi salicylici.....grs x to xv.
Sodæ sulphitis ..... ʒ ss to grs. xlv.
Glycerini..... ʒ ss.
Aquæ, ad..... ʒ iij.
M.

It was recommended to use the following mixture in the form of spray for several minutes at a time, and just before the administration of each dose of medicine.

℞ Acidi carbolici.....m. x.
Liquoris calcis..... ʒ iv.
M.

Applied by means of an ordinary perfuming atomizer. The doctor had found that children under two years of age so resisted the use of the atomizer that it was not available. He also recommended early resort to the nasal douché, and if offensiveness of the breath persisted, the nasal syringe should be resorted to and the salicylic mixture already mentioned.

For tough, unyielding membranes, the following was recommended:

℞ Tinct. of the chloride of iron.....two parts.
Glycerini.....one part.
M.

Applied with a camel-hair pencil, but the greatest care should be exercised not to treat the affected parts roughly.

Dr. Billington regarded quinine as worse than useless, especially in young children, except as an agent to reduce the temperature. It was to be used

for this purpose only when the temperature remained high after the initial stage had passed. For the high temperature, sometimes present early in the disease, a single dose of calomel was recommended. The doctor also maintained that the great majority of cases required no medication except the disinfectant measures, to which allusion had been made. Taking all the cases, probably 60 per cent. would recover spontaneously. Stimulants should not be used indiscriminately. The patients might have ice freely when they would take it; should be sustained by cold milk, perhaps eggs; and the juices of fruits, and the fruits themselves were regarded as beneficial.

Dr. Billington reported astonishing results, which he had obtained by following out this plan of treatment. Membranous exudation was present in every one of the cases referred to in the paper.

Out of one hundred and twenty-four dispensary cases, there were ninety recoveries. Of these, one hundred and two were under his own care, and eighty-eight recovered. The largest number in a single month occurred in the month of August, 1875. In his private practice, the doctor had had seventeen cases, and all recovered, with but a single exception. Of these, seven were of the severe tendency; the others were mild. The average duration of the doctor's cases was from four to six days. These cases, added to those treated by Drs. Darkin and Bullard, in accordance with the same plan, raised the number to fifty-one, and with but a single death, already mentioned. The inhalation of steam was regarded unfavorably. Dr. Billington believed that he could prevent systemic infection, and also subsequent serious laryngeal complication, by early, thorough, and faithful resort to and continuance of the measures for local disinfection which he had recommended.

The paper was listened to with marked attention.

Dr. Barry, in discussing the paper, remarked that the success obtained by Dr. Billington in the treatment of diphtheria had been wonderful, and that he had not been able to obtain any such results by any plan of treatment he had ever adopted. Dr. Barry was of the opinion that diphtheria was strictly a constitutional disease, and the local manifestation was simply an indicator. His treatment, therefore, was local and general. He discarded the promiscuous use of irritating substances in the throat. Where the amount of exudation was small, he used tincture of iron or muriatic acid with glycerine; and if the patient was of sufficient age, an astringent gargle: alum, chlorate of potash, etc. If the patient was young, the vapor of hot water or vapor of iodine was recommended. In those cases in which the tonsils were pretty well covered, he had been accustomed to use a powder composed of sulphate of iron, chlorate of potash, and muriate of ammonia. This was blown through a quill into the throat every two hours.

His general treatment was supporting in its fullest sense, for the tendency to death was by asthenia. Iron with quinine, chlorate of potash, carbonate of ammonia, milk, beef essence, milk-punch, should be employed. The surroundings of the patient should be cheerful and pleasant; the unaffected children removed, if possible, from the house; the room continuously disinfected; and the sick quarantined. In his cases the ordinary duration had been about two weeks if the patient was to recover. The more acute symptoms passed away in from four to six days; and if the case were to prove fatal, it usually did so about the fifth or sixth day. He had not met with a single fatal case in an adult patient in his own practice.

Dr. Burke was also of the opinion that diphtheria was a constitutional disease with a local manifestation. He also regarded local applications by means of brushes and sponges as harmful. "The mild cases," said the doctor, "would get well of themselves, but perhaps they had better have given them a little cubebs mixed with mucilage." "The malignant cases," continued the doctor, "would die in spite of all treatment."

There was a class of patients between these extremes that could be saved, a certain portion of them, by the use of constitutional remedies, such as quinine, iron, etc., etc.

Dr. Burke mentioned the use of bromine with bromide of potassium, as recommended by Prof. Thomson; and in some cases it had evidently done good, but in many cases it had done no good whatever. He also recommended inhalation of the vapor of lime-water, especially where croupy symptoms became developed.

Dr. Hanks remarked that Dr. Billington's paper was exceedingly interesting to him, for two reasons: first, because of the remarkable success which had attended his mode of treatment; and second, because it was the expression in words of convictions which had been slowly but surely maturing in his own mind during the past fourteen years.

Dr. Billington's success was truly remarkable, for he well knew the type of the disease as it had appeared in the twenty-first ward; having had in his private practice, during the last five years in that district, from twenty to thirty cases, every year. He knew that many of these cases attended by Dr. Billington had been severe, not a few malignant. Therefore, when the large per cent. of recoveries was considered, a cause must be looked for, and he believed two excellent reasons could be found for this satisfactory result. One was the kind of medicaments used locally and internally, and the other was the great care he bestowed in teaching the parents or nurses the *proper manner* of administering the remedies presented. This carrying out to the letter every little detail has had much to do, more than many had been led to suppose, in the cure of diphtheria.

He wished he could sufficiently emphasize the vast importance, in treating diphtheria, of careful attention to the minutiæ. Many had been, and still were in the habit of looking at the patient's throat, writing a prescription to be taken, ordering a gargle every few hours, and the nose to be syringe

twice a day, believing that their directions would be followed. He knew, however, that one-half of the best class of patients even did not receive the full benefit of the medicaments through lack of proper, intelligent nursing.

He mentioned that the paper was interesting to him, because it was the concise and practical expression of views that had been maturing in his mind for several years. He remembered the disease as it appeared in New England fourteen years ago. Then it was not alone a disease of childhood, but adults were frequently attacked, and it seemed to him that nearly one-half the deaths were among those over fifteen years of age. The prize essay of Slade was the only authority for the treatment at that time. They were taught to cauterize the throat, and use severe remedies, etc., etc. He remembered how, while performing the part of nurse for his preceptor, he applied strong nitrate of silver, locally, twice a day, gave strong solution of tincture of iron and quinine, brandy and whiskey, and made external application of poultices of various kinds. About one-half of the patients died, both young and old. When he commenced practice in Massachusetts, the disease was prevalent in a malignant type, and he treated his patients as he had been taught. He could not conscientiously continue the use of strong caustics, and began to use tannin dissolved in glycerine. Also Huxham's tincture with aromatic sulph. acid, in frequent doses, internally, with a little pyrophosphate of iron occasionally. His success was better, he learned thus that the disease did not require nitrate of silver in the first stage; and never, excepting in the necrotic or ulcerative stage, which appeared in some cases from the eighth to the fifteenth day. Within the last few years he had not changed the internal treatment, except that he had found more quinine necessary in New York than in Massachusetts. For local treatment, he had changed the glycerine and tannin for pleasant solutions of carbolic acid as a gargle, or equal parts of powdered chlorate of potash and sugar thrown through a glass tube into the mouth and on the affected parts. He liked Dr. Billington's medicaments, and especially his preparation of carbolic acid and lime water, which he used with the admirable little atomizer.

The success of his treatment would not equal Dr. B's, yet he had been led to suppose that it compared favorably with most of his brother practitioners. During the year 1875 he had had twenty-seven cases, with twenty-one recoveries and six deaths. As one of the latter number occurred out of the city, and he saw the patient for the first time after it was too late to do any good, he deducted it in making his per cent., and therefore reckoned this 70 + per cent. of recoveries as a fair record, considering the type of the disease. There was one practical suggestion on which he laid greater stress than had Dr. Billington. He believed he had met with marked success in enforcing a sort of quarantine regulation when the disease had appeared. A careful and thorough disinfection of the room and apartments of the patient and family could not be too strenuously insisted upon. For this purpose he used sulpho-carbolate of lime. He also compelled a persistent administration of the antiseptic remedies, carbolic acid in solution, or pulverized chlorate of potash, to all the unaffected members of the family. In carrying out that régime during the past year, he had had the satisfactory result of preventing the spread of the disease to other members of the family. In several instances where there were four or five small children that result had been attained. In conclusion, he wished to say that we could not be too careful, using all the means our knowledge could command, in preventing the ravages and spread of that fearful disease.—*New York Medical Record.*

A NEW METHOD OF PREVENTING THE SECRETION OF MILK IN THE FEMALE BREAST.

Dr. John Wm. Lane, L.R.C.S., writes to the *Medical Press and Circular*:—

I have for more than ten years employed the following method to prevent the secretion of milk in the breasts of women who may have had still-born children, or who, after having nursed their child for a few months, found it necessary to wean it. It is perfectly clean and painless, as far as my experience goes, and as such I beg to recommend it to the notice of my medical brethren.

We will take, for instance, the case where the infant has been born at the full period, but is dead, or dies within a few hours after its birth. The milk makes its appearance in the breasts generally about the second day, sometimes longer, and sometimes it is ready when the child is born, and in the case of still-born children my experience leads me to think that in such cases it makes its appearance earlier than when the child is born alive. My plan consists in taking a piece of emplastrum adhæsivum of about ten inches square, round the corners, cut a hole in the centre for the nipple, then from the centre of each corner make a straight cut toward and within two inches of the centre hole; having now got it ready, let the patient lie on her back, her body being perfectly horizontal; warm the plaster and place it over the breast, then strap one of the lower corners down first, draw the opposite one tightly upward and fix it in its place, then the other lower corner and lastly the opposite upper one, having drawn it sufficiently tight first; now take a piece of plaster two inches wide and about sixteen or eighteen inches long, and put it on from below and outside the breast, across, close by inside of nipple, and fasten the end over the clavicle; another piece may also be put on in an opposite direction, it being drawn over the shoulder. Of course, in cutting the plaster and strips, the size of the breasts must be taken into consideration, there being so much difference in the size of female breasts.

The above plan I always follow when one of my patients wishes to dry the milk, as they usually call it, or where they are compelled to do so either from the death of the child or any other cause. I also am certain that strapping will prevent mammary abscess if resorted to in the earlier stage; I at least have found it to do so in many cases.

FORMULÆ FROM THE PHARMACOPŒIA OF THE PHILADELPHIA HOSPITAL.

Our useful contemporary, the American *Journal of Pharmacy*, has published a number of the formulæ for the "house mixtures" in use in the Philadelphia Hospital. As these mixtures are the result of very extended and careful trial, we reproduce several which are of more general interest.

Mistura Anti-rheumatica.

℞. Potassii nitratis,		ʒ j
Vini colchici, radicis,		f. ʒ j
Spiritus ætheris nitrosi,		f. ʒ j
Syrupi guaiaci,		f. ʒ ij
Olei gaultheriæ,		gtt. vj
Aquæ,	q. s. ad.	f. ʒ vj. M.

Signa.—Dose, a tablespoonful every two hours.

Pilulæ Anti-neuralgicæ.

℞. Acidi arseniosi,	gr.iv
Strychniæ sulphatis,	gr.iij
Extracti belladonnæ,	gr.xxiv
Cinchoniæ sulphatis,	ʒ iij
Pilulæ ferri carbonatis,	ʒ v. M.

Fiat pilulæ cxx.

Signa.—Each pill contains 1-30th grain of arsenic, 1-40th grain of strychnia, 1-5th grain of belladonna. 1½ grains of cinchonia, and 2½ grains of Vallet's mass.

Mistura Ferri Chloridi Composita (Basham's Mixture).

℞. Liquoris ammonii acetatis,		f. ʒ iij
Tincturæ ferri chloridi		f. ʒ ijss
Acidi acetici diluti,		f. ʒ j
Curacoa vel alcohol,		f. ʒ ij
Syrupi,		
Aquæ,	āā q. s. ad.	f. ʒ vj.

Fiat mistura.

Signa—Dose, a tablespoonful.

Syrupus Pectoralis.

℞. Ammonii chloridi,		ʒ ss
Syrupi senagæ,		f. ʒ j
Misturæ glycyrrhizæ compositæ, q. s. ad.		f. ʒ viij. M.

Signa.—Dose, a dessertspoonful.

Excellent as a general cough syrup.

Tinctura Saponis Viridis cum Pice.

℞. Picis liquidæ,		
Saponis viridis,		
Spiritus methylici,	āā ʒ j	M.

Cum leni calore.

Very useful in many skin diseases.

Syrupus Chloralis.

℞. Chloralis hydratis,		℈lxiv
Tincturæ cardamomi,		f. ʒ j
Syrupi,		f. ʒ iv
Aquæ cinnamomi, q. s. ad.		Oj. M.

Signa.—A teaspoonful contains 10 grains of chloral.

An agreeable vehicle for chloral,

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EDITOR:

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THE MEDICAL BILL AND "THE CANADA MEDICAL RECORD."

Literal translation of an Editorial in the February number of L'Union Médicale du Canada, *on page* 87.

Mr. the Editor of the *Medical Record* writes but little and seldom, for which he deserves praise to judge from his last article on the Medical Bill presented by the Hon. Mr. Chapleau. He does arrange his phrases in order, it appears, only when laboring under strong excitement. This does seem to give a sense of vigor to his writings, but it obscures the force of his arguments, or rather at last they disappear altogether under the influence of passion (rage). If he will believe the advice of a friendly confrère he will gain by remaining mute and taking a cold douche as a calmative.

Wherefore, as our confrère has thought it well to venture a few words on the Medical Bill, in his January number, it becomes us to examine them. It is unnecessary to say that he attacks with all his might the poor mortals who have had the audacity to introduce a Bill before the Legislature, without consulting the thundering Jupiter who occupies the editorial chair of the *Canada Medical Record*. This does not astonish us, it is rather the contrary that would surprise us on his part. Jupiter he would really believe himself to be, but Minerva never came forth armed from his head. This, however, does not prevent his believing that all that does not germinate in his b ain is unworthyof consideration; this is, at the least what we can infer from the line of conduct that he has adopted in reference to the Medical Bill.

He admits that a change in the existing law is necessary, and refuses to give an opinion on a subject which he finds, willing or not, placed before the medical profession. Is this not puerile? That this project would take too much space to enter the precious columns of the *Medical Record* does not in any way prevent its being submitted now to the medical profession, and of being placed before a tribunal that will decide its fate. If our honorable confrère had read with that coolness that appertains to a serious question, and had not considered the half dozen of ultra-reformers to whom he attributes the paternity of the bill, perhaps we should have seen the shadow of an argument shoots forth in his article. But it was sufficient for him, no doubt, to know where the Bill comes from to judge of it, and moreover the rashness which brought his

article to light, was not of a nature to guide him in the study of this important subject. If a hint will serve to give a little calm to the ideas of our confrère, we can tell him that the promoters of the bill had no idea of pushing it this session further than its second reading. In so doing they had two objects in view, first to have the Legislature confirm the principle of the measure and the necessity of a reform, and secondly, to submit to the profession in this way the projected Medical Act. And they are perfectly satisfied with the position it holds to day. The *Medical Record* advises the debate of reforms through the College of Physicians and Surgeons. Is this a farce? Does our confrère ignore the fact that for years, since the incorporation of the College, many useless efforts have been advanced by different members of the College for improvement. These have always been wrecked and stranded on the rocks of apathy and indifference of rival schools. And will it be different to-day? Has Mr. the Editor lived in the moon, that he is ignorant of all that passes around him? How many projects during the last twenty-five years have been shattered before the Governors of the College?

Let us give the suggestion or project that was entombed at the meeting of the 25th of November last.

At a meeting of the College, on the 24th of September, 1873, a committee was named to draft amendments to the act of corporation. In May, 1874, they had not reported. A new committee was asked for, but they took good care, of course, to eliminate therefrom those who took an interest in the question. At the Triennial Meeting in the month of July, in Sherbrooke, there was no report. At the meeting of the College the question was hotly discussed. Four Medical men were named, all professors in Universities, to furnish a report in the fall. At the meeting in September, the committee had done nothing. A Governor, not belonging to the Committee, seeing that nothing was being done, presented a drafted report or act in the name of the Committee; it was ordered to be printed, and its discussion deferred until spring.

In the month of May, the Report was invisible, it had not been printed. How could it be discussed? In the fall, things were in the same position; they then ran around town and unearthed several numbers of a Journal that had published it, and then its discussion commenced. Before its reading had fairly commenced, a certain member made a violent attack on the haste with which they wished to push a measure of such importance, and he left the room followed by a number of others. A quorum remained, who decided to call a meeting of the College for the 24th of November. Quite a number of the members of the College proceeded to Quebec, at the time appointed, but they found out there that, according to law, the members could only so assemble once in three years. They returned nonplussed. And now who are they, in the bosom of the College, who shackle without ceasing the generous efforts of some members? They are the same who to-day cry loudest at the audacity of those who have not believed in entombing their project in the portfolio of the Secretary.

It is impossible to deny the urgency of a reform, when the injury done has assumed such alarming proportions, but those who are profiting by the abuses are anxious to delay as much as they can a change that they know to be inevitable.

The promoters did not wish to place their work in the hands of those extinguishers, or men of old ideas, and they did well. If this is audacity, it is well to remember the proverb *Audaces fortuna juvat.* The sympathetic and eager welcome with which the House received the Bill of the Hon. Mr. Chapleau augurs favorably for the issue.

Of one thing we may be certain, if at the last session the Bill was not pushed, for the reasons above given, it will be this fall with all the vigor and energy that its projectors possess, and these projectors will not do it silently as they have been accused; they hope to carry the majority, and are not afraid to meet before the committee of the House the adversaries of the measure. It will be then easy to furnish proofs to demonstrate that the system of actual competition between the schools is disastrous to the public and the profession, and that it is necessary to place a check before the enlarging crowd of incompetent students that are admitted to-day, and to this end there must be taken from these manufactories of Doctors a part of the privileges and rights that they now have and exercise.

The *Medical Record* finds it exorbitant that the new bill transfers the properties of the College to the new organization. First, we would like to know of what the property consists? Apart from its Records, Diploma and Seal, what remains to the College? Shall we speak of the petty cash that comes for the greater part from the sale of its Licenses that are useless to the holders? Let us suggest an amendment, that the members distribute among themselves this enormous amount; or better, let them decide to bury their decrepid organization by a Homeric supper. All is well that ends well.

We must not forget a painting that should be found somewhere, if the (M. Raton) rats have not disposed of it some night for a spree. It is that of the first President, the late Dr. Arnoldi. If it turns up in the dusty corner of some member's residence, we propose to restore it with full honors.

To speak seriously, if the College has any rights of value, the Committee of the Legislature is there to judge and decide. We need expect no injustice on their part. The archives are the only things that the new organization will require to commence work, and to endeavor to get order out of chaos. But, nevertheless, the Medical Bill presented by the Hon. Mr. Chapleau has, amongst the present governors a good number of supporters, and doubtless these confrères will show the value and worth of the projected Medical Act in a way to satisfy the unprejudiced.

Many feel the anomalous position in which they are placed as members of a body reputed to have

charge of the affairs of the profession but that possesses no power to effect it.

We are told of the good accomplished by the present College. We would like to hear of the benefits we owe it. The College can do no good or no harm, as it is impotent. The harm that it does is purely negative, because it can only prevent the good to be accomplished. But that is a good deal. Better to commit suicide under these circumstances for then—

"Life is a disgrace
And death a duty."

We will allow for a handsome epitaph on the monument that will remind future generations of the good that the medical profession derived from the establishment of the College of Physicians and Surgeons of Lower Canada.

We publish the above editorial article from the *L'Union Medicale du Canada*, with the view of letting the English members of the profession know what the promoters of the Medical Bill, which was introduced by the Hon. Mr. Chapleau, at the last Session of the Quebec Legislature, have to say in its favor. The article from the *Record*, which is criticised, was based upon general information which we had received; and as our contemporary has voluntarily entered the field to attack us and to defend the action of those who are the promoters of the Bill, we are justified in looking upon *L'Union Medicale* as their organ. Our contemporary informs his readers that we write but little and seldom. We, however, try always to have something to say when we do write, and though we would be sorry to assert that *L'Union Medicale* follows our example, yet, we venture to assure its editor that he might say a great deal more if he would write less, and we point to the article we have copied as an illustration. His advice we accept with thankfulness, although we venture to think that the re-action, which is generally the result of the treatment he suggests, would not realize the object which he seems to have in view. We have no desire to play the part of a thundering Jupiter, nor to dictate to the profession the course which they should pursue. That is left to the editor of *L'Union Medicale* and its friends, who, ignoring all constituted authority, desire to drive from power those who, for nearly thirty years, have guided the destinies of the Medical profession in this Province, and to erect in its stead, a new corporation, composed of those who, so far as we are able to judge, now, for the first time, shew the great interest they have in its welfare. We had and have a right to characterize such conduct as it, in our opinion, deserves; and we think still that we did not use too strong a phrase when we said it was "*audacious*." If these self-constituted revolutionists feel that the present College of Physicians and Surgeons of Lower Canada, did not attain results, such as should be expected from such a corporation, there was a legitimate course of action open to them. If they had chosen to take this legitimate course, we would have willingly given them any assistance in our power. As, on the contrary, they have made no such attempt, but have thrown to the winds even any outward semblance of respect for the present organization, we have felt compelled to use such influence as we may possess to defeat the objects which they so loudly proclaim they have in view. We, of course cannot know all who have taken the initial steps in this movement, but we have sufficient information, however, to inform us that some of them are members of the College. As such, they are able to take part in its tri-annual meetings, and we have yet to be made aware of the first step they have taken to show either their interest in its present organization, or their desire it should be remodelled. It may be true, and we believe is true, that several Governors of the College have, for some time felt, that a change was necessary, and that their attempts to obtain such a change have not shown such vitality as to induce a due consideration of it from their fellow Governors. This we willingly admit to be true, but its truth only proves most forcibly the argument which we advance, and that is, that the members of the College themselves, are in reality to blame for this state of things. If, in 1874, those now active in this movement, felt that the Board of Governors, which retired that year, were opposed to any change in the constitution of the College, they should have appeared in force at the Tri-Annual Meeting which was held at Sherbrooke in that year, and there in open meeting expressed their opinion. If a promise, full and explicit, of prompt action, could not have been got from those seeking re-election, an attempt, at least, to obtain such a Board of Governors as would carry out a full measure of reform should have been made. We were present at that meeting, and nothing even approaching a murmur was heard, and the Governors of the College which were then elected had a right to think that the profession, as a whole were, at all events, not clamorous for a change. Perhaps it may be argued by the friends of this new Bill that, as members, they were numerically insignificant as compared with those members interested in Medical Schools. If this be true, even still a recourse was open to them. They could have increased their

strength, by having elected as members all of their friends who, by four years licentiateship, were entitled to such election. If they had followed this course, we would willingly have given them not only our sympathy but all assistance in our power, for we are among those who think that a change is imperatively demanded. Not only have we thought so, but we have been steadily working for the past three years, backed by such influence as we could carry with us, to get such a change inaugurated. 'Tis true we have not yet been successful; but we have seen sufficient to satisfy us that the end of the College, as now constituted, is drawing near, and that, too, as a result, of what we believe to have been constitutional means. We have followed by personal observation and by historical research, the history of the present College since its organization in 1847 We have, through the columns of old medical journals, unfortunately now difficult of access owing to paucity of numbers, glanced at the history of the profession in Canada, previous to the incorporation of the College, and we are satisfied that, much as it at present falls short of what we think it ought to be, we are satisfied it has done a very great deal to bring the profession to the present most respectable position, which it occupies in this Province.

Such being the case, we do not think it wise to ignore its existence in any future measure of reform; and we are very strongly of opinion that the Legislature of the Province of Quebec will entertain this opinion also. We do not think we err when we say that the introducer of this new Bill, the Hon. Mr. Chapleau, is one with us on this point. We judge so after a personal conversation with him. We do not doubt the *right* of the friends of *l'Union Medicale* to introduce this Bill, but we very strongly question their wisdom in doing so; and we have the highest authority for stating that, as the Bill at present rests, they have not succeeded in having the Legislature confirm the principle of the Bill. We will not attempt just now even to allude to some of the clauses of the new Bill, save to remark that with reference to the transference of the properties of the College, the sum of money at present in the hands of the Treasurer is not the insignificant sum which the editor of the *l'Union Medicale* seems to think it is. It would furnish a good many Homeric suppers, not alone to its friends, but also to its enemies, who would doubtless relish the treat, so little of the funds contributed for the support of the College having come out of their pocket.

With regard to the portrait of the late Dr. Arnoldi, we have pleasure in saying that it is in excellent hands. It graces the walls of the Laval University, who will restore it to its proper place, when such is prepared for it, without calling in the assistance of the editor of *l'Union Medicale* and his friends to give it full honors. It would indeed be an anomaly, that the portrait of a gentleman who did so much to establish the College of Physicians and Surgeons of Lower Canada, should have the honors pertaining to its restoration performed by those who are to-day straining every nerve to wreck the organization he did so much for. The very proposal is in bad taste.

A NEW MEDICAL SCHOOL FOR MONTREAL.

L'Union Medicale for March, says:—It is reported that a new Medical School is being organized in this city. The promoters of this enterprise are negotiating with a Canadian University, for affiliation. If the rumor is reliable, this School will differ entirely from the Colleges now existing. The promoters consider that long didactic lectures are altogether useless to students, who can read just as well from their books, as for professors to read it to them. In the new School, the lectures will be devoted to matters susceptible of demonstration. The students will pass through a course of practical chemical work, the mixing of medicines, operations of the cadaver, and going over the physiological experiments of the Professor, &c., &c., &c. By this plan the number of the lectures will be diminished. The promoters consider that practical lessons during three months will suffice to initiate the student, and the remainder of the time can be given to theoretical studies. As students usually waste their first year at College, it is proposed to limit the course to two years, comprising thus two sessions of three months each, as the length of study.

Bearing on the clinical department, it is proposed to found an extensive dispensary in a central location in the city, where each professor will exercise his specialty. A poly-clinique will also be established; the students will attend patients at their residences, assisted by a physician in important cases."

[Are those interested in this proposed School aware that the study of medicine in the Province of Quebec is controlled and defined by law, and that the plan proposed would not comply with its provisions.]—*Ed. Record.*

Dr. J. R. Mackie, (M.D., McGill College, 1865) died at Leeds, Megantic, the end of March.

We regret to have to chronicle the sudden death of our friend and subscriber Dr. McIntosh, of Hamilton, which event took place on the 23rd of March, from apoplexy. Dr. McIntosh was apparently in his usual health a few moments previous to the attack, having just returned from making his morning professional calls.

We also notice the death of another of our subscribers, Dr. Rufus Holden, of Belleville. We are, however, unable to get particulars.

AMERICAN MEDICAL ASSOCIATION AND THE CANADA MEDICAL ASSOCIATION.

It will, no doubt, be in the recollection of our readers that at the meeting of the Canada Medical Association at Niagara in 1874 it was suggested that a conference between the American Medical Association and our own would be attended with great advantage were it possible to be attained, and Resolutions to that effect were proposed and carried, and at the last meeting of the American Medical Association in Louisville these resolutions were read by the Secretary, Dr. Atkinson, and agreed to, and the following gentlemen, Dr. S. D. Gross, Philadelphia, Pa.; J.T. Hogden, St. Louis, Mo.; Austin Flint, sen. New York City; W. Walling, Louisville, Ky.; L. C. Lane, San Francisco, Cal.; Wm. Johnson, Jackson, Miss.; Wm. Brodie, Detroit, Mich.; J. M. Toner, Washington, D. C.; F. D. Cunningham, Richmond, Va.; E. Andrews, Chicago, Ill.; W. B. Atkinson, Philadelphia, Pa.; D. J. Bowditch, Boston, Mass.; and Robert S. Bartholder, Cincinnati, Ohio, were named as a Committee of Conference, "to meet a like number from the Canada Medical Association at such time and place as may be agreed upon by the joint Committee of the Associations."

At the meeting of the Canada Medical Association held in Halifax in August last the following gentlemen were named as its members to meet the American representatives: Drs. Grant, Ottawa; R. P. Howard, Hingston, Montreal; Hodder, Toronto; Botsford, St. John, N.B.; Thorburn, Toronto; Farrell, Halifax, N.S.; Parker, Halifax, N.S.; Fulton, Toronto; Atherton, Fredericton, N.B.; F. W. Campbell, Montreal; Robillard, Montreal, and David, Montreal.

After correspondence between Professor Gross of Philadelphia and Dr. David of Montreal, as it was found it would be impossible to hold the conference in September and as suggested by Professor Gross, it has been decided that it takes place in the City of Philadelphia on Monday, 5th June next. We trust the members will attend, as the meeting will not only be an interesting one, but one, we think, that will be attended with beneficial results.

We are requested to state that, after deliberation, at the suggestion of several members of the Canadian Committee, it has been decided to postpone the above proposed meeting in Philadelphia until Saturday, the 2nd day of September next. This is done because it is believed the majority of the Committee desire to attend the Centennial Medical Congress, which opens in Philadelphia on the 4th of September, and who will, by this latter arrangement, be able to accomplish both objects by a single visit. We think the idea is an admirable one, and we have no doubt but that this will be the opinion of all interested.

THE CENTENNIAL CONGRESS AT PHILADELPHIA AND THE MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

At the meeting of the Medico-Chirurgical Society of Montreal held on the 21st March, the following members were appointed delegates to the Centennial Congress at Philadelphia: Drs. Godfrey, Howard, Fenwick, Hingston, Trenholme, Ross and Bell. We believe all these gentlemen will attend.

SUBSCRIPTION AND CLUBBING AGENCIES.

Within the last six months we have received some seven circulars, from what are termed Subscription and Clubbing Agencies, asking the terms of our Journal. In giving them, we have demanded *cash with all orders*, and the result has been we heard no further from that agency. What strikes us as more than passing strange, is that nearly every one of these agencies are located at some small country place, the very name of which is all but unknown. Can any of our United States contemporaries give us any light on the subject?

The *Philadelphia Medical and Surgical Reporter* says: "A rival of Tom Thumb has appeared in Binghamton, New York, in the person of a boy five years old, who weighs nine pounds when fully dressed, is twenty-three inches in height, is physically perfect and healthy, and who talks very distinctly. The child weighed but two and a half pounds at birth, and has not grown since he was a few months old.

CENTENNIAL INTERNATIONAL MEDICAL CONGRESS.

For the purpose of joining the Centennial Celebration, the Medical Societies of Philadelphia have resolved to hold an International Medical Congress, to open at noon on Monday the 4th September next and close on the 9th.

With a desire of ensuring an active participation of the Medical Profession of all parts of the world in the deliberations of the Congress, a number of honorary corresponding members have been named to inform the Commission concerning the principal Medical Societies of their respective countries, in order that those bodies may be invited to send delegates to the International Medical Congress. Dr. David, of Montreal, has been named for the Dominion of Canada, and is already in correspondence with the Foreign Corresponding Secretaries. The officers of the Centennial Medical Commission are as follows:

President, Saml. D. Gross, M.D., LL.D., D.C.L., Oxon; Vice Presidents, W. J. Rusherberger, M.D., U.S.N.; Alfred Stillé, M.D.; Recording Secretary, W. B. Atkinson, M.D.; American Corresponding Secretaries, Daniel G. Brenton, M.D.; Wm. Goddell, M.D.; Foreign Corresponding Secretaries Richard J. Dunglison, M.D.; R. M. Bertolet, M.D.; Treasurer, Caspar Wistar, M.D.

The Commission consists of about ninety of the leading physicians of the United States; among the names are those of Surgeon General Barnes, U.S.A.; Surgeon General Beales, U.S.N.; N. S. Davis, Chicago; H. J. Biglow, Boston; Austin Flint, New York; D. W. Yandall, Louisville; S. M. Bemiss, New Orleans; Fordyce Barker, New York; J. M. Woodworth, U. S. Hospital Marine Service; and invitations are to be extended to all the prominent Medical Societies of Europe, Mexico, the British Dominions, Central and South America, the Sandwich Islands, the East and West Indies, Australia, China, and Japan, and as promises have already been received from the most eminent medical men of the world that they would attend, and many of them read papers, there is not the slightest doubt but that the Congress will be a great success, and an opportunity afforded its members of interchanging friendly greetings, of forming new acquaintances, and the renewing and cementing of old friendships.

UNIVERSITY OF BISHOP'S COLLEGE MEDICAL FACULTY.

The following gentlemen passed on the 23rd and 24th of March their Primary Examination for the degree of C.M., M.D., consisting of Chemistry, Practical Chemistry, Anatomy, Materia Medica, and Physiology, viz.: Casey A. Wood, Ottawa, Ont.; Edward A. Graveley, Cornwall, Ont.; Hugh A. Meagher, Drummondville, Que., and Charles Raphael Belle, Montrea. On the 30th and 31st March, Mr. Terence G. Sheridan, of Quebec, passed his Final Examination for the degree of C.M., M.D., consisting of Surgery, Midwifery, Practice of Medicine, Pathology, Hygiene, Medical Jurisprudence, Clinical Medicine and Clinical Surgery. The number of matriculants this year was 37.

The special prize of $25 (donated by a friend of the University) for the first year student who shall attain to the greatest proficiency in anatomy and dissection, was awarded to John Joseph Cauley, of Norwich, Connecticut, U. S.

The Senior Prize in Practical Anatomy was awarded to Hugh A. Meagher, of Drummondville, Que.

The Junior Prize in Practical Anatomy was awarded to Homer E. Mitchell, of Bedford, Que.

The prize for the best Primary Examination was awarded to Casey A. Wood, of Ottawa, Ont.

UNIVERSITY OF McGILL COLLEGE—FACULTY OF MEDICINE.

The Annual Convocation of this University for conferring degrees in Medicine took place on the 31st March, Mr. Peter Redpath, one of the Vice-Chancellors, presiding. In the absence of Dr. George W. Campbell, Dean of the Medical Faculty, (who is in Europe) Dr. Scott made the usual announcements.

The total number of students enregistered in this faculty during the past session was 148, of whom there were from Ontario 86; Quebec, 42; Nova Scotia, 4; New Brunswick, 3; P. E. I., 5; West Indies, 1; United States, 7. The following gentlemen, 21 in number, have passed their primary examinations on the following subjects: Anatomy, Physiology, Chemistry, Materia Medicâ and Pharmacy, Institutes of Medicine, and Pathology and Zoology. Their names are as follows: Armstrong G. E., Bell Jas., Boyle Albert, Brodie John, Burland Samuel C., Cannon Gilbert, Cameron Duncan H., Collson Robert, Cotton Cedric L., Faulkner Daniel W., Fortier Alexandre, Fraser Alex. C., Gillies John A. F., Greaves Henry C., Jamieson Alexander, B.A., Lane John A., Law Wm. K., Miner Frank L., Oakley William D., Park Geo. A., Smellie Thos. S. D., M.A.

The following gentlemen—thirty-four in number—have fulfilled all the requirements to entitle them

to the degree of M.D., C.M. These consist in examinations, both written and oral, on the following subjects:—Theory and Practice of Surgery. Theory and Practice of Medicine, Obstetrics and Diseases of Women and Children, Medical Jurisprudence and Hygiene, and also Clinical Examinations in Medicine and Surgery, conducted at the bedside in the Hospital.

The names of the successful candidates, and the subject of their Thesis, are as follows:—

Baynes Donald, M.A., L.R.C.P., Bronchocele; Campbell James, Spasmodic Asthma; Clarke Fincastle, G. B., Bloodless Operations; Colquhoun George, Clinical Reports; Cook Guy R., B.A., Bronchitis; Cooke Wm. Henry, Food; Coyle Henry W., Erysipelas; Craig Thornton, Erysipelas; Cream Thomas N., Chloroform; Cruthers Wm., Clinical Reports; Eberle Henry A., Pneumonia; Gray John S., Uterine Hemorrhage; Greer Thos. A., Spermatorrhœa; Hunt Henry, Clinical Notes; Johnson Jas. B., Hospital Reports; Lang Christopher McL., Anchylosis; Levi Reuben, Lobular Pneumonia; McIlmoyle Henry A., Typhoid Fever; Metcalf Henry J., Diabetes Mellitus; Munro Alex., Tubercle; Murray Chas. H., B.A., Hospital Reports; Powell Robert W., Surgical Cases; Reddy Herbert L., B.A., Hospital Reports; Ritchie Arthur F., B.A., Tubular Nephritis; Robinson Stephen J., Typhoid Fever; Secord Levi, Pulmonary Enphysema; Smith Wm., Alcohol; Snider Fred. S., Acute Artic Rheumatism; Stevenson Chas. N., Clinical Reports; Storrs Arthur, Post Mortem Hæmorrhage; Stroud Chas. S., Syphilis; Young Philip R., Hospital Reports.

The Holmes Gold Medal was awarded to Robert W. Powell, of Ottawa, Ont.

The prize for the final examination was awarded to Charles H. Murray, B.A., Montreal, Q.

A special prize was awarded to Richard L. MacDonnell, B.A., for general proficiency, and especially the excellent character of his inaugural thesis.

The prize for the primary examination was awarded to Alexander C. Fraser, Wallaceburg, Ont.

The following gentlemen, arranged in the order of merit, get honorable mention:—In the final examination, Messrs. MacDonnell, Ritchie, Young, Hunt, Smith, Secord, and Lang.

In the primary examination Messrs. Bell, Cotton, Oakley, Smellie, Jamieson, Miner, and Armstrong.

The ceremony of conferring of degree of M.D., C.M., was next proceeded with, Professor Dawson and Professor Craik officiating. So soon as this was completed,

Dr. RITCHIE, one of the graduates, delivered the valedictory.

Professor RODDICK, M.D., followed in an address to the students, of which the following is a summary:—In accordance with time-honored custom. I am here on behalf of the Medical Faculty of this University to offer to you their hearty congratulations on being this day the recipients of the highest honor which it is their privilege to bestow. After a long, and in the main tiresome race, lasting over four years, you have at length reached the winning-post, and are here to-day in the presence of a gracious, admiring and sympathising public receiving the laurels you have so honorably won. You are to be congratulated, gentlemen, not only on having graduated in Medicine, but in having done so at such an auspicious period in the history of our profession and country. There never was a time in this Dominion when energetic workers, honest, conscientious men, were in greater demand. It is certainly time to be up and doing when we have one of the chief leaders of public opinion in our midst—a journal of which we would have expected better things—upholding the cause of quackery and imputing to us the basest of motives because we attempt to vindicate our right and raise our voices on behalf of a deluded people. The Toronto *Globe* asserts with an air of apparent earnestness that to molest these charlatans in their absurd and often nefarious practice is an unwarranted interference with the liberty of the subject. It positively contends that any one who considers himself competent, either from some inherited charm or from mere taste, of treating the various troubles of the flesh to which humanity is heir should be allowed to do so unmolested. The evil consequence of such a policy cannot be estimated. It is difficult to understand indeed how it should find so strong an advocate in this otherwise respectable mouthpiece of public opinion. This journal chooses to ignore the time and pains we have expended, and the pecuniary outlay we have made in endeavoring to acquire a thorough knowledge of our profession, so that we may the better inspire the over credulous with our ability to heal. Forsooth we are told that to raise a warning voice against, and endeavor by legislation to rid society of these its evil members, is to destroy the liberty of the subject. It is not jealousy that impels us in our action against those clever rogues, who gain immense riches, where honest men starve. Give us our dues; it is

not jealousy but an honest desire, irrespective of our profession, to protect our fellows from fraud. You are called upon then, gentlemen, on the very eve of your professional birth to do battle for legitimate medicine. This refers especially to those of you whose lot will be cast in the neighboring province of Ontario which seemed to be a favorite haunt of these protegés of the Toronto press. The influence which many of you must of necessity wield in a few years cannot better be employed than in seeking to fill the legislatures of our respective provinces with men, either professional or otherwise, having decided and intelligent views on the all-important subject of medical legislation. The fact is, we are not so well represented at court as we might be—that we are not the power in the state we should be. It is true there are members of our profession in our general and local parliaments, but how feeble are their voices when we would expect to find them the loudest in debate. There are two or three who do us credit, and whom we delight in honoring, but, even they, after long political careers, fighting for their party principles, or from other causes, have become estranged from us, and are more famous as financiers or expounders of the law than as sons of Æsculapius; besides, our services, I contend, are required in the Legislature of our country as much on the country's account as on our own. Those great measures of sanitary reform, which must, in the natural course of things be accomplished, will of necessity be a great part of the work in our hands. And then we can better procure an enactment respecting vital statistics, the proper ventilation and drainage of cities, and then we can better devise measures for the prevention of epidemics, and the grappling with them when they appear. It is our province; it belongs by right and title to us; and while the financiers of our Legislatures are squabbling over their dollars and cents and ways and means; while the manufacturers are keeping a weather eye open to the tariff, let us have men there irrespective of party, so that Liberal and Conservative, Whig and Tory, will rally round the old flag, remembering that our motto is, *Sanitas sanitatum omnia sanitas.* As medical men, and taking, as you no doubt will, a prominent part in the community in which you work, you will be expected to give a ready and intelligent opinion of various topics of the day, having reference to sanitary science. The relation to defective drainage, impure air and adulterated milk in the causation of typhoid fever, will come up for constant discussion. The subjects of overcrowding, adulterating food, impure occupations, &c., and the influence they exert in multiplying causes of disease, and in the production of disease, will be matters on which you will be expected to be thoroughly versed. There is nothing, however, in the discussion of which your temper and ingenuity will be more sorely tried than in the defence of that priceless preventative, vaccination. Have at your finger ends some of the more familiar facts connected with this all-important subject, in order to meet the objections of those who have, unfortunately may be, erroneous views on the subject. Relate to them, for instance (among other facts which he named), that during the epidemic in London in 1863, how it was found out that the best vaccination was more than thirty times as protective as the worst; and the worst was more than fifty-seven times better than none at all. Tell them that in the City of Montreal, during the last year of your studentship, the total number of deaths was 6,321, of which nearly one eighth, or 784, were from small-pox, and of these 653 were unvaccinated French-speaking Canadians. If these facts fail to make an impression on these unbelievers, quote the statistics of the Montreal General Hospital during the past year, in which it is found that fifty per cent. of the unvaccinated died, whereas only four deaths occurred among all those who had been vaccinated, and where re-vaccination had been successfully performed only two cases had been admitted, and those were of the mildest type. The Doctor went on to advise the students on the responsibility of their position, the necessity for study, their duty to their patients, to the poor, and as to their professional and gentlemanly behavior towards one another.

INTERNATIONAL MEDICAL CONGRESS.

PHILADELPHIA, 1876.

SEPTEMBER 4TH-9TH.

The International Medical Congress will be formally opened at noon, on Monday, the 4th day of September, 1876, in the University of Pennsylvania.

The following addresses will be delivered before the Congress in general meeting:—

Address on Medicine, by Austin Flint, M.D., Professor of Practice of Medicine in Bellevue Hospital Medical College, New York.

Address on Hygiene and Preventive Medicine, by Henry I. Bowditch, M.D., President of State Board of Health of Massachusetts.

Address on Surgery, by Paul F. Eve, M.D., Professor of Operative and Clinical Surgery in the University of Nashville.

Address on Obstetrics, by Theophilus Parvin, M.D., Professor of Obstetrics in the College of Physicians and Surgeons of Indiana.

INGLIS, MONTREAL.

DR. WOLFRED NELSON'S.

CASE OF

FIBRO-CYSTIC BRONCHOCELE.

Address on Medical Chemistry and Toxicology by Theodore G. Wormley, M.D., Professor of Chemistry in Starling Medical College, Columbus, Ohio.

Address on Medical Biography, by J. M. Toner, M.D., of Washington, D. C.

Address by Dr. Hermann Lebert, Professor of Clinical Medicine in the University of Breslau.

Address on Medical Education and Medical Institutions, by Nathan S. Davis, M.D., Professor of Principles and Practice of Medicine in Chicago Medical College.

Address on Medical Literature, by Lunsford P. Yandell, M.D., late Professor of Physiology in the University of Louisville.

Address on Mental Hygiene, by John P. Gray, M.D., Superintendent and Physician to the New York State Lunatic Asylum, Utica, New York.

Address on Medical Jurisprudence, by Stanford E. Chaillé, M.D., Professor of Physiology and Pathological Anatomy in the University of Louisiana.

Discussions on scientific subjects will be opened in the Sections as follows:—

Section I.—MEDICINE.

1st Question. Typho-malarial Fever; is it a Special Type of Fever? Reporter, J. J. Woodward, M.D., Assistant Surgeon U.S. Army.

2d Question. Are Diphtheritic and Pseudo-membranous Croup Identical or Distinct Affections? Reporter, J. Lewis Smith, M.D., Physician to the New York Infants' Hospital.

3d Question. Do the Conditions of Modern Life favor specially the Development of Nervous Diseases? Reporter, Roberts Bartholow, M.D., Professor of the Theory and Practice of Medicine in the Medical College of Ohio.

4th Question. The Influence of High Altitudes on the Progress of Phthisis. Reporter, Charles Denison, M.D., of Denver, Colorado.

Section II. BIOLOGY.

1st Question. Microscopy of the Blood. Reporter, Christopher Johnston, M.D., Professor of Surgery in the University of Maryland.

2d Question. The Excretory Function of the Liver. Reporter, Austin Flint, Jr., M.D., Professor of Physiology in the Bellevue Hospital Medical College, New York.

3d Question. Pathological Histology of Cancer. Reporter, J. W. S. Arnold, M.D., Professo of Physiology in the University of the City of New York.

4th Question. The Mechanism of Joints. Reporter, Harrison Allen, M.D., Professor of Comparative Anatomy in the University of Pennsylvania.

Section III. SURGERY.

1st Question. Antiseptic Surgery. Reporter, John T. Hodgen, M.D., Professor of Surgical Anatomy and of Clinical Surgery in the St. Louis Medical College.

2d Question. Medical and Surgical Treatment of Aneurism. Reporter, William H. Van Buren, M.D., Professor of the Principles and Practice of Surgery and of Clinical Surgery in the Bellevue Hospital Medical College, New York.

3d Question. Treatment of Coxalgia. Reporter, Lewis A. Sayre, M.D., Professor of Orthopædic Surgery and of Clinical Surgery in the Bellevue Hospital Medical College, New York.

4th Question. The Causes and the Geographical Distribution of Calculous Diseases. Reporter, Claudius H. Mastin, M.D., of Mobile, Alabama.

Section IV. DERMATOLOGY AND SYPHILOLOGY.

1st Question. Variations in Type and in Prevalence of Diseases of the Skin in Different Countries of Equal Civilization. Reporter, James C. White, M.D., Professor of Dermatology in Harvard University.

2d Question. Are Eczema and Psoriasis Local Diseases, or are they Manifestations of Constitutional Disorders? Reporter, Lucius Duncan Bulkley, M.D., of New York.

3d Question. The Virus of Venereal Sores; its Unity or Duality. Reporter, Freeman J. Bumstead, M.D., late Professor of Venereal Diseases at College of Physicians and Surgeons, New York.

4th Question. The Treatment of Syphilis with Special Reference to the Constitutional Remedies appropriate to its various Stages; the Duration of their Use, and the Question of their Continuous or Intermittent Employment. Reporter, E. L. Keys, M.D., Adjunct Professor of Surgery and Professor of Dermatology in Bellevue Hospital Medical College, New York.

Section V. OBSTETRICS.

1st Question. The Causes and the Treatment of Non-puerperal Hemorrhages of the Womb. Reporter, William H. Byford, M.D., Professor of Obstetrics and Diseases of Women and Children in the Chicago Medical College.

2d Question. The Mechanism of Natural and of Artificial Labor in Narrow Pelves. Reporter, William Goodell, M.D., Clinical Professor of Diseases of Women and of Children in the University of Pennsylvania.

3d Question. The Treatment of Fibroid Tumors of the Uterus. Reporter, Washington L. Atlee, M.D., of Philadelphia.

4th Question. The Nature, Causes, and Prevention of Puerperal Fever. Reporter, William T. Lusk, M.D., Professor of Obstetrics and Diseases of Women and Children in Bellevue Hospital Medical College, New York.

Section VI. OPHTHALMOLOGY.

1st Question. The Comparative Value of Caustics and of Astringents in the treatment of Diseases of the Conjunctiva, and the Best Mode of Applying them. Reporter, Henry W. Williams, M.D., Professor of Ophthalmology in Harvard University.

2nd Question. Tumors of the Optic Nerve. Reporter, Herman Knapp, M.D., of New York.

3d Question. Orbital Aneurismal Disease and Pulsating Exophthalmia; their Diagnosis and Treatment. Reporter, E. Williams, M.D., Professor of Ophthalmology in Miami Medical College of Cincinnati.

4th Question. Are Progressive Myopia and Posterior Staphyloma due to Hereditary Predisposition, or can they be induced by Defects of Refraction, acting through the Influence of the Ciliary Muscle? Reporter, E. G. Loring, M.D., of New York.

Section VII. OTOLOGY.

1st Question. Importance of Treatment of Aural Diseases in their early Stages, especially when arising from the Exanthemata. Reporter, Albert H. Buck, M.D., of New York.

2d Question. What is the Best Mode of Uniform Measurement of Hearing? Reporter, Clarence J. Blake, M.D., Instructor in Otology in Harvard University.

3d Question. In what Percentage of Cases do Artificial Drum-membranes prove of Practical Advantage? Reporter, H. N. Spencer, M.D., of St. Louis.

Section VIII. SANITARY SCIENCE.

1st Question. Disposal and Utilization of Sewage and Refuse. Reporter, John H. Rauch, M.D., late Sanitary Superintendent of Chicago, Ill.

2d Question. Hospital Construction and Ventilation. Reporter, Stephen Smith, M.D., Professor of Orthopædic Surgery in the University of the City of New York.

3d Question. The General Subject of Quarantine with Particular Reference to Cholera and Yellow Fever. Reporter, J. M. Woodworth, M.D., Supervising Surgeon-General U. S. Marine Hospital Service.

4th Question. The Present Condition of the Evidence concerning "Disease-germs." Reporter, Thomas E. Satterthwaite, M.D., of New York.

Section IX. MENTAL DISEASES.

1st Question. The Microscopical Study of the Brain. Re-

porter, Walter H. Kempster, M.D., Physician and Superintendent of Northern Hospital for Insane, Oshkosh, Wisconsin.

2d Question. Responsibility of the Insane for Criminal Acts. Reporter, Isaac Ray, M.D., of Philadelphia.

3d Question. Simulation of Insanity by the Insane. Reporter, C. H. Hughes, M.D., of St. Louis, Mo.

4th Question. The Best Provision for the Chronic Insane. Reporter, C. H. Nichols, M.D., Physician and Superintendent of the Government Hospital for the Insane, Washington, D. C.

Gentlemen intending to make communications upon scientific subjects, or to participate in any of the debates, will please notify the Commission before the first of August, in order that places may be assigned them on the programme.

In order to facilitate debate there will be published on or about June 1st the outlines of the opening remarks by the several reporters. Copies may be obtained on application to the Corresponding Secretaries.

The volume of Transactions will be published as soon as practicable after the adjournment of the Congress.

The Public Dinner of the Congress will be given on Thursday, September 7th, at 6.30 P.M.

The registration book will be open daily from Thursday, Aug. 31, from 12 to 3 P.M., in the Hall of the College of Physicians, N. E. corner 13th and Locust Streets. Credentials must in every case be presented.

The registration fee (which will not be required from foreign members) has been fixed at Ten Dollars, and will entitle the member to a copy of the Transactions of the Congress.

Gentlemen attending the Congress can have their correspondence directed to the care of the College of Physicians of Philadelphia, N. E. cor. of Locust and Thirteenth Sts., Philadelphia, Pennsylvania.

There is every reason to believe that there will be ample hotel accommodation, at reasonable rates, for all strangers visiting Philadelphia in 1876. Further information may be obtained by addressing the Corresponding Secretaries.

All communications must be addressed to the appropriate Secretaries at Philadelphia.

The foregoing programme is published by the authority of the Committee of Arrangements of the Centennial Medical Commission.

S. D. GROSS, M.D.,
President.

William B. Atkinson, M.D., 1400 Pine Street, *Recording Secretary;* William Goodell, M.D., 20th and Hamilton Sts., Daniel G. Brinton, M.D., 115 S. 7th Street, *American Corresponding Secretaries;* Richard J. Dunglison, M.D., 814 N. 16th Street; R. M. Bertolet, M.D., 113 S. Broad Street. *Foreign Corresponding Secretaries.*

Philadelphia, March, 1876.

Death of Sir George Duncan Gibb, Bart., M.A., M.D., M.R.C.P., London, L.R.C.S., F.G.S., LL.D.

In our last issue we briefly announced the death of this distinguished Canadian, which melancholy event took place in London, England, on the 16th of February last, after a somewhat lengthened illness, at the early age of fifty-five years. Dr. Gibb was born in Montreal, and was a nephew of the present Benaiah Gibb, Esq., of this city. He pursued his medical studies at McGill College, and was a member of her graduating class of 1846, receiving the degree of M.D. During the year 1845 and 1846 and '47 he was one of the resident medical officers of the Montreal General Hospital. He was also a Life Governor of this institution. In further pursuing his studies he in 1848 left for Dublin, where he passed his examination and received the License of the Royal College of Surgeons of Ireland. About 1849 or '50 he returned to Canada and began the practice of his profession in Montreal, his office being on Craig Street, a few doors from St. Urbain Street. In 1851 he joined with Drs. A. H. David, R. Palmer Howard, and George E. Fenwick in establishing the St. Lawrence School of Medicine, which, however, only existed one year. In this Institution he occupied the chair of Institutes of Medicine, and we believe his course of lectures were of a character to promise a bright future for him in this direction, had he been enabled to continue them. In this same year he was an applicant for a vacancy in the attending staff of the Montreal General Hospital, rendered vacant by Dr. David's resignation, but was unsuccessful. In 1853 he determined to seek a larger field of usefulness and at once made for the metropolis of the world—London. It seemed like madness for a young Canadian thus to place himself where personal influence could be of no avail—but twenty-three years perseverance, hardships, and many trials, such as only those who knew him well will ever know, at last gave him a name,—if they did not give him wealth. We have personal reasons for believing that if health had been given him for about two years or so more he would have reaped financial success, the natural sequence of the English and continental reputation he was fast acquiring as an authority upon diseases of the throat. In 1855 he was appointed Reporter to the Hospital Mirror department of the *London Lancet*, and this he held until 1866. This position was an introduction for him to every London medical celebrity—all of whom he knew well, and with all of whom he was on terms of much intimacy. He was a constant occupant of the operating theatre of all the principal London Hospitals on operating days. Many a Canadian student, especially McGill graduates, who have passed months in London, will hear of his death with regret, and will recal many a kind act done for them, many an opportune introduction given, by him who is now no more. On this point we write with feelings of the most pleasant recollections. We were in London the greater part of the summer of 1861, and Dr. Gibb, for a certain portion of almost every week-day was our almost constant companion—and as we to-day refer to our note-book of that period, we realise more than ever how very much of what we saw was due to his unceasing efforts in our behalf. In 1859 Dr. Gibb took the membership of

the Royal College of Physicians of London, and in 1864 we believe Laval University of Quebec gave him the Hon. LL.D. In 1866, on a second visit to London, we found Dr. Gibb engaged in preparing his pedigree, he having, when engaged making researches at the Registry office in Edinburgh, discovered that there was a dormant Baronetcy in his family. We do not know whether Dr. Gibb was the legal heir to this title but we know he honestly believed he was, and he assured us that high legal advice advised his assumption of the title. This he did, but his wisdom in doing so is we know questioned by many. Still by tacit consent at all events, the title was given him, and when in the fall of 1874 the writer again had the pleasure of spending several hours with him at his residence in Bryanston street, Sir Duncan assured him that ere long his legal right to the title would be acknowledged by the highest authority in the land. Upon this last visit we noticed Sir Duncan did not look well, his voice never very strong, was markedly by aphonic, and he showed evident signs of debility from overwork. We hoped, however, for the best, little thinking that within a year he would be on his death-bed. Dr. Gibb was connected with the medical staff of the Westminster Hospital, London, having been appointed an assistant physician about 1867, and physician on the death of Mr. Ainstie in 1874. He was an able writer, and was a prolific contributor to Medical Science. Besides numerous papers on various subjects he was the author of a number of works on general medicine, as "on whooping cough," "on diseases and morbid states of the urine," &c. Before the invention of the Laryngoscope he had written a work on diseases of the throat, and when Czermak's pamphlet appeared, he was selected by the new Sydenham Society to translate it. He at once began to cultivate Laryngoscopy, and soon published a work of his own on the use of this instrument, which has gone through three editions. His study of this class of affections had within the past few years made him a well-recognized authority on them, and as a natural result patients were coming to him in considerable numbers. Had life been spared him a few years, we believe firmly that he would have been in the receipt of a very handsome yearly income.

Sir Duncan did not confine himself to Medicine, but was a devoted lover of Geology. Many a Geological excursion we made with him in 1861 to the chalk cliffs of Chatham, Dover, and Brighton. He was devotedly fond of research, and never seemed so happy as when engaged in hunting up some obscure point, especially fond was he of Genealogical research. His most extensive work on this subject consists of two volumes of several hundred pages each "on the life of Robert Gib, Lord of Cariber, 1524 to 1650. showed a really wonderful amount of research for one whose time was so fully occupied. His endeavors to trace the history of the Gibb family did not terminate with the publication of this work, for during our visit in 1874 we were shown by him large volumes, in which were written by him all the information which he had collected since its issue. These will doubtless now find their way to where he intended them to go, viz., to the Library of the British Museum, and so far as we could judge, they seemed full of interest to all of the name of Gibb, although practically they contain no information of actual value. He had a most extensive library, and he expressed to us in 1874 his intention of leaving it so that it should enrich the medical institutions of this city. Whether he has carried out this idea we do not know. In all his habits Sir Duncan was methodical to a degree; he was in the habit of jotting down, in his diary, all the principal events of his life, and every two years this diary was substantially bound, and made its appearance in his library with the following title back: "*Incidents in the Life of George D. Gibb.*" When we saw them last they numbered some fifteen volumes, and they doubtless contain a fund of information which may yet prove of value to more than his immediate friends. Sir Duncan never forgot he was Canadian, and always took a warm interest in Medical matters in Montreal, being in the constant receipt of this *Journal* and the *Canada Medical and Surgical Journal*, edited by his old friend and confrère, Dr. Fenwick. The *London Medical Times and Gazette* says "throughout his last illness Sir Duncan enjoyed the benefit of the kind skill of Drs. Scott, Allison and Routh; he also had the advantage of the opinions of Sir George Burrows, Dr. C. J. B. Williams, Dr. Walsh and Dr. Hughlings Jackson. He had been suffering more or less since last April, when an attack of pericarditis and pleurisy supervened. A brief apparent recovery took place in the summer, but it was only transient. The left lung became disorganized and at the *post mortem* it was found to consist of corpuscular *débris* undergoing retrogade metamorphosis; grave pathological changes were found in the right lung and in the liver." His remains were interred in Kensal Green Cemetery. We heartily deplore his loss, and in this we know we will be joined by all who have experienced his

kindness during their stay in London, while those in Canada who did not know him, save by his reputation will regret, that a distinguished Canadian, has fallen, before being permitted to realize to its full extent that success which was already dawning upon him, as the result of a life thoroughly and earnestly devoted to scientific investigation.

PERSONAL.

Dr. George W. Campbell of Montreal, who at present is on an extensive tour in Europe, when last heard from was in Rome.

Dr. Reddy, Junior, son of Dr. Reddy of Montreal, who graduated this spring at McGill University, sailed by the Allan S.S. "Polynesian" on the 1st of April for Europe.

Dr. R. MacDonnell, son of Dr. R. L. MacDonnell, of Montreal, and Dr. A. F. Ritchie, both graduates of McGill College of the present session, sailed for Europe by the S.S. "*Scandinavian,*" on the 8th of April.

REVIEW.

CYCLOPÆDIA OF THE PRACTICE OF MEDICINE. Edited by Dr. H. VON ZIEMSSEN, Professor of Clinical Medicine in Munich, Bavaria. New York, William Wood & Co., 27 Great Jones St., 1875. [VOLUME III., CHRONIC INFECTIOUS DISEASES.]

The first three hundred pages is devoted to the consideration of the subject of Syphilis by Christian Bäumler, Professor of Materia Medica at Frieburg, who, all things considered, has given a very admirable paper. The history of the disease is given with considerable minuteness, its various stages are well described, and the doctrines of unity and of duality are enumerated—the various arguments for and against being given with great fairness. His own opinion is summed up in the following words: "Weighing together all the facts thus far collected with reference to the question at issue we cannot but regard *the chancre as a purely local contagious affection*, and that while it may stand in some remote relation to syphilis, it does not so necessarily." In the matter of treatment, he enters fully; at the very outset of this portion of the paper he boldly and firmly enunciates the view that as experience has shown the impossibility of eradicating the disease, the next best thing is to control it. He, therefore, favors governmental supervision of prostitution and inspection of the prostitutes, and points to centres where this has been done, and the result everything that could be desired. In England, under the operation of the Contagious Disease Act, in garrison towns, the number of soldiers affected with venereal disease had diminished from one hundred and twenty-four per thousand to fifty-four per thousand. In our opinion this speaks volumes in favor of this policy. If the lesion be seen soon after infection, and it takes the form of an ulcer, the application of fuming nitric acid is advised or sulphate of copper, two drachms to an ounce of water or with concentrated carbolic acid—the old method of applying the solid stick of nitrate of silver is not once mentioned. In treating large ulcerating indurations, black wash is the lotion advised—of various strengths—say from three to eight grains of calomel to the ounce of lime water. In the treatment of primary lesions having the form of chancrous ulcers, where the application of the nitric acid is not possible, iodoform is well spoken of. Phagedena he considers is best treated by permanent bath and irrigations of permanganate of potash. In the constitutional treatment of the disease he is a firm believer in mercury, as a direct antagonist. As he believes it is desirable to render the existence of the primary sore as short as possible, by restraining it in its development, as soon as it is fairly established that it is a syphilitic sore, that very moment should the use of mercury be commenced. He lays great stress upon the great importance of the *systematic* and *regular* character with which this remedy must be taken. This is a point of very grave importance, and one which is not insisted upon by the profession as it should be. As to the length of time during which this remedy should be continued—it is placed at four months in mild cases, and double that time for more serious ones. Now our experience will not lead us to adopt this view although we confess it is indeed infintismal compared with that of Bäumler. Still we have seen in fourteen years a considerable number of cases, and in not a few the treatment had to be continued for a much longer time. And in this matter it is well to deal honestly by your patient, for if you do not he will in all probability lose heart at the tedious character of his disease, and eventually fall out of your hands into those of some ignorant quack.

From page 314 to page 551 is taken up with the consideration of those diseases which are the result of infection by animal poisons. All are admirable

papers, and embrace about everything which is known with regard to this interesting, although comparatively rare, class of affections. If we would find any fault it is that to our mind a little too much space is first occupied in describing the disease in animals. Perhaps the two most interesting papers in this section are those on acute glanders in the human subject, and hydrophobia in man, but as fortunately they are very rare affections, they perhaps will not attract the attention which they deserve. All the articles in this section are from the pen of Otto Bollinger, whose studies have embraced veterinary as well as legitimate medicine. In his prognosis of of hydrophobia in man he says "*the disease is always fatal*," for he does not believe there is a single case of recovery on record from an attack of this disease. We are not prepared to dispute this sweeping assertion, although we fancy some will hardly endorse so complete an anathema.

From page 551 to page 660—the close of the volume—is occupied by diseases from migratory parasites, the various papers being from the pen of Arnold Heller, Professor of General Pathology at the University of Kiel. He is a young man, having graduated in 1866, but is evidently an enthusiastic worker, and all his articles give evidence of much thought and research. The most interesting and important is the paper on Trichinia Spiralis, a disease unfortunately which has appeared somewhat extensively in various portions of this continent.

VOLUME X. DISEASES OF THE FEMALE SEXUAL ORGANS.

This volume was issued in place of volume IV., thus following the issue of the work in Germany, which is irregular as regards the numbering of the volumes—some which are believed to be of more interest and importance having the precedence, although numbered to conform to the plan of the entire work. We for our part fail to see the wisdom of this plan, and think it is a great mistake. These volumes are certainly of very great value to the profession as works of reference, but we do not imagine they are going to revolutionize practice and do not see any object to be gained by irregular issue. We hope future volumes will appear in rotation. Professor Schroeder of Erlangen, who has written the whole of this volume, has an excellent reputation in England, as well as in his own country, a volume from his pen on Midwifery having had an extensive sale in Great Britain. In the present work he has done all that could possibly have been expected of him, and the result is the production of an excellent treatise upon this now extensive specialty. So far as we are able to judge by the smoothness of the reading and the entire absence of anything like idioisms, we believe the translations to be perfect. The first portion of the work is devoted to gynækological examination, and diseases of the uterus. A history of the subject is given, and the various instruments employed are fully described. Professor Schroeder, as might be expected from a continental writer, prefers the *dorsal* position in preference to the *lateral* position, which latter is the one we believe universally adopted in England. In this country, our experience leads us to believe that both these methods are followed, according to the case which is under examination. The reasons assigned for the abandonment of the lateral position is "partly because the sensitive palmer surface of the index finger is turned toward the posterior wall of the vagina, and the curvature of the finger and that of the vagina do not correspond, but principally because conjoined manipulation is either impossible in this position or is very inconvenient. He, however, admits the necessity of the lateral position in using Sim's original speculum. In this stand with regard to position, we find most Briti h authorities opposed to him.

In the section devoted to describing examinations by the sound, he gives a very good piece of advice, and one we believe not by any means unnecessary when he says: "It should never be forgotten that the fingers are holding an exploring instrument, which is to seek an always existing canal, and not to bore a new one." He claims to use this instrument only when he expects to derive from it some especial and not otherwise obtainable information.

The section on diseases of the uturus is an excellent one, and we read with great satisfaction his description of the condition known as Hæmatometra or retention of the menses. He believes this is a misnomer, as his experience leads him to believe that the retention is in the vagina and not in the uterus, and should therefore be designated Hæmatokolpos. Space does not allow us to follow the various sections of this book, all of which are more or less admirable; but as we closed the book after a pretty exhaustive examination of it, we could not help coming to the conclusion, that while undoubtedly our German brethren take the foremost place as physiologists and pathologists, they have not that practical turn of mind which seems so admirably suited to the English and Americans, and therefore

they are not as full in giving treatment as we would like. If the present volume fails in anything, it is on this point alone.

In closing this notice of these two volumes, we would especially call the attention of our subscribers to this work, which is being published by the well known firm of William Wood & Co., of New York. It cannot be purchased from any bookseller but must be subscribed for, when it will be sent direct from the publishing house. It is admitted, we believe, that when completed it will form one of the most valuable medical works of reference ever published, so that any really extensive medical library will not be complete without it. Volumes are issued about every three months, and the price is from $5.00 upwards, according to the style of the binding. The typographical execution of these two volumes is everything which could possibly be desired, and reflects credit upon the house publishing them.

Volume four is on our table, and will be noticed next month.

Transactions of the Pathological Society of Philadelphia. Volume fifth. Edited by James Tyson, M.D., Professor of Pathological Anatomy and Histology in the University of Pennsylvania, Philadelphia: Printed for the Society by J. P. Lippincott & Co., 1876.

Without a very close and critical examination of this work, it is quite impossible to form a correct estimate of the value of the various cases which are briefly described, and which unfortunately terminated fatally, thus allowing the production of the morbid specimens. Still, however, the fact that a Society composed of such well known physicians permits them to appear in their transactions, is of itself considerable guarantee of their value. We look upon a volume of this character as being of especial value to Hospital Physicians, and those engaged in teaching Pathology at our various Medical Schools; to them we strongly recommend the work. Its range of subjects will be seen when we state that a large number of cases are described of diseases of the osseous system; of the organs of digestion; of the organs of circulation; of the organs of respiration; of the genito-urinary organs; of the nervous system; of the organs of special sense; diseases of the skin; of the ductless glands, besides many specimens not classifiable. Of one thing we are very sure, and that is, no one can even glance over this volume of about two hundred and fifty pages, without being fully satisfied that the Physicians attached to the Philadelphia Hospitals work largely in the interests of our noble profession. We wish such was the case in all Hospitals, but we know too well it is not. A feature in this report is the recording of the valuable remarks which fall from the various members of the Society. Although attempted before, it was never so fully done as in this volume, and it enhances very much the interest attached to the various cases. Our own experience leads us to the belief that often the remarks called forth by a paper exceed the value of the paper itself.

The volume is well gotten up, and we have only one regret to express, and that is that a few of the illustrations are not exactly as good as we think they might have been.

Insanity in its Medico-Legal Relations. By A. C. Cowperthwait, A.M., M.D. J. M. Stoddart & Co., 723 Chestnut st., Philadelphia; Dawson Bros., Montreal.

The manual on Insanity in its Medico-Legal relations has been issued at a very opportune moment, as the relations between the two professions are not of a nature always to command public confidence. Dr. Cowperthwait says quite truly, "it is enough for the lawyers to diagnose the crime, and leave the diagnosis to those who know something about it. Unfortunately this is not always done, and only recently in England this sort of thing was fully exposed. Upon two separate occasions the same lunatic was apprehended and imprisoned for robbery, and this was done in spite of the very best medical evidence in England. At last, owing to the urgent representation of his friends the man was removed to an asylum and died there shortly afterwards." The manual is somewhat short, but contains as much important and reliable information as a great many more pretentious works on the same subject.

Transactions of the College of Physicians and Surgeons of Philadelphia. *Third Series, Volume 1st.* Philadelphia: printed for the College, 1875.—Lindsay & Blakiston, Publishers.

This volume contains several very interesting communications upon medical and surgical subjects—but is especialy valuable as it gives at great length the autopsy which was made upon the celebrated Siamese Twins. At the close of the book we find a very able

paper from the pen of Dr. Pancoast, Professor of descriptive and surgical anatomy in the Jefferson Medical College, on the Surgical considerations in regard to the propriety of an operation for the seperation of these celebrated twins, based on the above post mortem. His opinion is decided—operation after they attained maturity was an impossibility; if ever it should have been performed, the time was in their infancy, but on this point his opinion is not definite. Dr. Hutcheson contributes an interesting paper on Adenoid(Hodgkins) Disease, with an analysis of fifty-eight cases, and the history of a case recently under his immediate care. The blood of this patient showed a slight excess of white corpuscles, and this condition was believed to have continued up to death, although no analysis was made immediately antecedent to death. In connection with a case of this disease contributed to the last issue of this journal by Dr. Bessy of Montreal, we have read this paper with much interest. Perhaps the next most interesting paper is one by Dr. Forbes, Surgeon to the Philadelphia Episcopal Hospital on a case of Acute Tetanus, successfully treated by nitrate of amyl inhalations, commencing with three drops twice a day and then to five drops. The origin of the disease was a severe burn from a hot iron, extending from his waist to his heels, his buttocks being most severely burned. The tetanic symptoms set in on the 5th day; and were well marked on the 6th day. The inhalation of the amyl seemed from the very first to have a controlling effect on the spasms, which, however, do not seem to us to have been very numerous. The convalescence was tedious, it being the forty-sixth day from the attack before he was pronounced thoroughly convalescent. The transactions contain other interesting communications which space will not allow us to notice. It is published by Lindsay & Blakiston at $2.50 per volume. It can be ordered from them, and can be received through the Post Office.

Annual Reports on Diseases of the chest, *under the direction of Horace Dobell, M. D.*, Consulting Physician to the Royal Hospital for diseases of the chest, London, assisted by numerous and distinguished coadjutors in different parts of the world. Vol. 1, June 1st, 1874, to 1st June, 1875. London, Smith, Elder & Co., Waterloo Place.

Dr. Dobell has favored us, through the post, with the above volume, which we have glanced over with a good deal of care, and we willingly admit that through his various coadjutors he has amassed a very considerable amount of information, much of which is valuable; still there is observable, more in some portions than in others of course, but still almost everywhere evidences of want of skill in collating the material, and in this way valuable space is occupied unnecessarily. This fault is one which will doubtless be less observable in future reports, for the experience which the coadjutors have gained by this first volume, will come to their aid. While making this observation it is perhaps but right we should mention that some at least of Dr. Dobell's correspondents accepted the position but a few months previous to the issuing of the work and so had little time to revise their labors. The Report from the Dominion of Canada was made by Dr. R. P. Howard of Montreal, and we cordially endorse the selection. Indeed none better could have been made. The consulting coadjutors in Canada were Dr. Fulton, Toronto, and Dr. Fenwick and Dr. Francis W. Campbell, Montreal—all being connected with Canadian Medical Literature. Selections are made from the Canada Medical Record, Canada Medical and Surgical Journal and the Canada Lancet, and Dr. Howard's admirable paper on "Objections to some of the recent views upon the Pathology of Tubercle and Pulmonary Consumption," as read before the 1874 meeting of the "Canadian Medical Association," is published in full. The appearance which Canada makes is little if anything inferior to more pretentious places, but still we cannot help the thought, that a large amount of valuable material, relating to this important class of cases, is lost, not alone to the profession of Canada, but to the world, by the continued neglect of the mass of the profession in contributing to Local Medical Journals. Of the value of the present volume we are fully cognizant, and to all who desire to be thoroughly informed upon this subject, especially those who are in any way connected with Medical teaching, we strongly advise the purchase of these reports, which will continue to be published at the close of every year.

Montreal, March 10th, 1876.

The regular fortnightly meeting of the Society was held this evening in the rooms of the Natural History Society.

Dr. F. W. Campbell, the 1st Vice-President, in the chair. Present: Drs. Trenholme, Reddy, Ross, Wilkins, Bessey, Simpson, Gardner, Cline, Nelson, H. Howard, Roddick, Rourk, Angus Macdonell,

Fenwick, Bullen, Shepherd and Bell; Visitor, Dr. Murray, 2nd Bombay Cavalry.

The minutes of the last meeting were read and approved.

Dr. REDDY, seconded by Dr. Ross, proposed Dr. Donald Baynes for membership in the Society.

Dr. Ross read a report of a case of colotomy, which he had lately performed for the relief of a woman suffering from syphilitic disease of the rectum. The operation was highly successful both in its performance and results. The opening in the left loin is at present stopped with an operculum of gutta percha, which confines the contents of the bowel very perfectly.

Dr. FENWICK described two cases of colotomy, in which he had operated. The first operation was for syphilitic obstruction of the rectum and was successful. In this case, however, Dr. Fenwick thought that a smaller incision through the tissues would have obviated a tendency to protrusion of the bowel which was afterwards apt to take place. The second operation was for epitheliomatous disease of the rectum in a girl of 12 years, who, however, looked much older. The disease extended several inches up the rectum, causing great pain and preventing the patient from retaining the fæces, which constantly drained away in an offensive fluid and acrid condition. The operation was successful in palliating the condition for which it had been performed.

In performing the operation the opening in the transversalis fascia was made small (with the object of preventing any future protrusion of the bowel), and a quantity of fat lying at the lower end of the kidney and protruding through the incision caused some difficulty in immediately finding the colon, which could not rise through the small obstructed opening, even after being distended with air. The lower end of the kidney lying immediately behind the colon forms an excellent guide to it.

Dr. CLINE read some notes of the history and progress of the second case.

Dr. FENWICK then continued his remarks; briefly describing and commenting on the operations of Bryant, Amussat and Callisen.

Dr. GARDNER read a report of an operation of colotomy he had performed on an infant two weeks old, whose rectum was imperforate. The colon was opened in the left groin. The operation was successful and the relief to the patient perfect. A probe passed into the bowel, took a course towards the right side, showing no continuity of tissue with the anal cul-de-sac. There was afterwards a strong tendency to the closure of the opening, by contraction, which was prevented by the introduction of bougies.

Dr. Ross was glad to have the opportunity of congratulating Dr. Gardner on his having added another to the small number of successful operations of the kind he had described.

A discussion of the subject of the papers, in particular and generally, then followed, after which

A vote of thanks to Drs. Fenwick, Ross and Gardner for their able and interesting papers was moved by Dr. H. HOWARD and seconded by Dr. REDDY.

The Secretary read a communication from the Commission of the International Medical Congress, requesting the Medico-Chirurgical Society to appoint delegates to represent it at Philadelphia in September next.

Action on this was postponed till the next meeting.

The meeting then adjourned,

(Signed,) JOHN BELL, A.M., M.D.,
Secretary-Treasurer.

BISMUTH IN SKIN DISEASE.

To alleviate the intense itching and irritation which accompanies chronic eczema and other forms of skin disease, apply an ointment, containing half a drachm of subnitrate of bismuth to an ounce of simple ointment, rubbed up with a little spirits of wine.—*Am. Med. Weekly.*

BIRTHS.

In Blythe, Ontario, on the 1st Feburary, the wife of Dr. Sloan of a son.

At 1 St. James Place, Canning street West, on the 24th March, the wife of Wolfred Nelson, C.M., M.D., of a daughter.

At Ottawa, on the 11th March, the wife of Clarence R. Church, M.D., of a son.

MARRIED.

On Tuesday, 21st March, at the residence of the bride's parents, by the Rev. A. DeSola, LL.D., David A. Hart, Esq., C.M., M.D., of Bedford, second son of the late Alexander T. Hart, Esq., of Three Rivers, to Sarah Matilda, eldest daughter of Dr. A. H. David, of this city.

DIED.

At Brantford, Ont., on the 15th March, Caroline, widow of the late Dr. Alfred Digby, aged 67 years.

At Lambton Mills, on the 26th February, Elinor, wife of Thomas Beatty, M.D., aged 49 years.

In Montreal, on the 2nd instant, Mabel, infant daughter of Wolfred Nelson, C.M., M.D.

Original Communications.

Clinical Observations. By A. P. Reid, Professor of Medicine and Clinical Medicine, Halifax Medical College.

Mr. President,—It is not my intention to take up the time of the Association with very lengthened remarks, nor do I, for a moment, think that I have anything new to offer—my desire being rather to elicit discussion from those whose observations, continued over a long period of time and with extended opportunities, will be of great interest and value.

1*st.*—*Therapeutics of Chlorosis.*

All are aware that this extremely common malady is very susceptible to treatment by the ordinary means of good diet, pure air, laxatives and ferruginous and bitter tonics; but it has no less fallen to the lot of many to see cases where these means completely fail to restore health, even when very judiciously used, and it is to such as these that I wish to refer.

I will give a brief history of the first case that proved rebellious to all ordinary medication, and gave rise to the ideas to be referred to.

A. B., aged 24, came under charge at the Provincial and City Hospital, with the following history: Had been admitted about two months previously, under one of my colleagues, complaining of debility; there was ammenorrhœa, and the ordinary symptoms of chlorosis. The recognised means of relief had been judiciously used, but without benefit; in fact, the house-surgeon said she was worse than on admittance.

Examination showed that there was no recognizable disease of the heart, lungs, kidney, stomach or liver, but ammenorrhœa strongly pronounced, anemia and impoverished blood, venous hum, and anemic cardiac murmur, and general anasarca, which simulated the last stage of Bright's disease, with inability to even sit up in bed.

I need not occupy your time with the detail of treatment by laxatives, tonics, alteratives, bandaging, etc., which left the patient in, if anything, a worse state, so much so, that there did not even seem a chance for the continuance of life, and a departure from ordinary treatment became imperative.

In discussing the subject with the clinical class it was very evident that the blood, in addition to being very watery, was loaded with excrementitious products, and that the debilitated emunctories were unable to remove these impurities from the blood.

Acting on this assumption, I concluded that the best tonic or alterative would be liquor potassæ, as it excels all other diuretics in the amount of solids carried away by the kidneys.

Its use was contra-indicated from its known effect of producing debility and a watery state of the blood when long continued, and as well of impairing digestion.

Evidently, however, the patient would not hold out unless relieved speedily, and the liquor potassæ was given a trial—10 minim doses in mucilage three times a day.

In the course of two days the very swollen condition of the legs was a little ameliorated (no bandaging being used) and the appetite was, if anything, better.

This improvement continued, and in the course of two weeks she was able to sit up, the anasarca having quite disappeared. The cardiac murmur was lessened, and the pasty color of the skin was a little relieved.

In three weeks time the liq. potas. was discontinued; she had become very well, and was able leave the Hospital in five weeks quite restored. Milk and nourishing diet, with liq. potass. being the only means used. Since then, I have frequently resorted to this drug in anemia ammenorrhœa, and, with few exceptions, with very great satisfaction, and in no case have I seen it productive of injury.

I have not been able to account for its failure in the few instances where iron has been subsequently required; but, even then, I think it had been of service by enabling the iron to act with greater promptitude.

In considering the course of chlorosis, we first have retention of the masses of an excrementitious blood, which debilitates, if it do not poison, the assimilating properties of the tissues, and if this be the fact, an agent which would stimulate and assist excretion should be the most efficient medicine. Such we have in liq. potass., and to this I attribute its curative power—the blood poison being removed the assimulative powers rapidly recuperate, without the necessity for special tonics.

During my last three months' duty at the Hospital, every case(six in number) of uncomplicated chlorosis was placed on liq. potass., and all got well rapidly, without other medication, unless a laxative when necessary. One case, with marked hysteria, was not benefited, and under subsequent treatmeut with iron, quinine, and other tonics, any improvement could not be detected.

2nd.—*Administration of Mercury as a means of Diagnosis.*—It has often fallen to the lot of the every day practitioner, and particularly to those having charge of hospitals, that cases, both male and female, present themselves without symptoms sufficiently definite to assure a correct diagnosis. It may be of malaise, or loss of vision, or some cutaneous eruption, or loss of power of muscles more or less extensive, where a direct history of syphilis cannot be obtained, or where there is every reason to believe that it is not the cause, or with foreign sailors who cannot make themselves well understood.

In such cases, after promoting due performance of all the secretions as far as possible, when ordinary treatment fails, I have got into the habit of prescribing one grain of protoxide of mercury three times a day, and in a very great number (of such as the above referred to) marked improvement shows itself. The drug is not pushed far enough to produce any very marked constitutional symptoms, other than perhaps a slight tenderness of the gums. Often full benefit is received without going this far.

It is not my intention to enter into any discussion on this subject, for I have not sufficient basis.

Good results from the administration of mercury does not necessarily indicate that the malady was syphilitic, for we are all well aware of the beneficial influence of this alterative in many forms of disease. But I suspect that, where it is followed by rapid qenefit, there is room for grave suspicion of a form of constitutional syphilis, particularly in the case of sailors. I have often tried iodide of potass. where syphilitic taint was suspected, but with far more frequent failures than in the case of mercury.

I have thus far occupied your time with subjects that I do not consider as having anything of novelty about them, and have not (with the exception of one) cited cases, because it appears to me there is no need to do more than mention the circumstances.

A great deal of our practice is routine, even with a correct diagnosis. We first try one means and then another, owing to the peculiarities of different constitutions, and of the same constitution or individual under changed conditions, and also because "Armamenta medicorum" are more numerous than effective.

But where diagnosis is at fault routine becomes extremely vague.

This paper is, in fact, an acknowledgment of the necessity of routine in a class of disease; but in the case of mercury, I think the leaning is, if anything, towards diagnosis.

Case of Bent Knee. Resulting from Chronic disease of the joint, eleven years standing; restored by an operation. By CHARLES BENT, M.D., Truro, N. S.

Louisa, aged 14 years, daughter of Mr. Wm. Birrell of this town, came under my treatment eleven years ago, at that time aged 3 years, for subacute inflammatory disease of the knee joint, characterized by heat, pain, swelling and inability to move the joint without causing pain, attended with general constitutional derangement.

I was unable to trace it to any injury, and no cause could be assigned, as far as her parents knew, except that she was a very active, playful child, and might have hurt it. However, I think it may be attributed more to constitutional than to any local cause, as her diathesis is evidently of a strumous nature. In the treatment of the ase I resorted at first to antiphlogistic measures, which consisted principally in the application of leeches to the joint, and administering purgatives with such other means as the case demanded, until the active symptoms abated. But to my disappointment it assumed a chronic form, and I followed up the treatment by counter-irritation, by blisters occasionally on the inside of the knee, and at intervals painting with tincture iodine, at the same time giving alteratives and tonics—iodide and bromide of potassium combined with iron and quinine with good nourishing diet, and sent into the open air as much as possible.

This course of treatment was continued for several years, pretermitting it from time to time as the symptoms of the case warranted. There were times when she would be quite free from any suffering, and continue so for months; at the same time there was an enlargement of the joint, and the skin tense and shiny and veins full, and when felt, a sensation of heat in the part, but well enough to go about on crutches. Then she would have a return of pain and increased swelling, chiefly on the inside of the head of the tibia, which always yielded speedily to counter-irritation by a blister or two on the inside of the knee.

The leg, during this long and tedious illness, gradually became flexed on the thigh as much as it could, which I deemed advisable not to attempt to counteract from the fact that any meddling with its position in any way contrary to that of its natural inclination, rendered it so painful that she could not suffer it, and the result of the case showed that that was the best course to adopt.

There was a good deal of wasting of the muscles of the leg and thigh, or, more correctly speaking, they had not, from want of action, become developed. There was also an apparent enlargement of the condyles from this wasting, and yet there is evidently a real enlargement which I consider to be the result of a thickening of the soft parts.

For the past year she has been entirely free of disease in the joint, and general health good, but the limb deformed, stiff and totally useless—so completely flexed on the thigh that it appeared as if the head of the tibia was drawn away from the condyles, therefore I decided that the time had arrived for an operation.

On the first of June, 1875, assisted by Dr. Page, she was put under the influence of chloroform, and I divided the biceps tendon, and immediately, but gradually, brought the limb straight, which required considerable force in order to break up old adhesions, evidenced by a good deal of creaking in the joint; then it was allowed to assume the flexed position it had been in for a number of years, dressed the wound with a piece of adhesive plaster—indeed, it could scarcely be called a wound—and bandaged the knee, and allowed it to remain eight days, during which time she had no pain or swelling. Then I again put her under chloroform and brought the leg straight with less difficulty than at the first operation, and placed it in a box extending two-thirds on the thigh and beyond the foot, secured by a broad bandage over the knee and a narrow one at each end, and retained it there for two weeks; then removed the box and bandaged the knee, and gradually got her on her feet. She is now able to walk the streets with the aid of a cane, and will, from the rapid way the limb is gaining strength, and at the same time acquiring confidence in herself, be able, in a short time, to throw aside all artificial support and depend upon her *leg*, which has been useless for eleven years. During the first few days, after straightening the leg and confining it in the box, she complained of a stiff and uncomfortable feeling in it, which required a few doses of morphia to compose her, but no inflammatory action followed, and no other treatment was required. I may remark that I delayed operating in this case until I felt quite sure that the disease had entirely yielded, lest any interference might possibly renew the trouble, and I believe the little girl will be amply rewarded for exercising so much patience and fortitude in the satisfaction of being permanently restored from a cripple, which deprived her largely of all worldly enjoyments, to one of ease and comfort.

Progress of Medical Science.

PROPRIETY OF BLEEDING IN ACUTE DISEASES.

BY J. T. MITCHELL, F. R. C. S., ETC.

"Medio butissimus ibis."

During more than thirty years I have filled the office of medical director of one of the largest life-insurance companies of the country, and one part of my duty in it has been to record the cases of death that occur therein, and the causes thereof; and from the frequent instances in which death has occurred from acute pleuro-pneumonia, peritonitis, and other inflammatory attacks of vital organs, in subjects many of whom were young, and who, before these fatal illnesses, had enjoyed robust and vigorous health, I have been induced to ask myself—What has been, and what is, the cause of this fatality?—when, in considering its comparative rarity in my own extensive and protracted experience, I have been drawn to the conclusion that the valuable theory of inflammation taught by the immortal Hunter is thoroughly misunderstood, and has been so now for a long period, and therefore the most palpable means for its relief has been so neglected. I allude to general and free bleeding in the early stages of such affections—a practice which for many years has been most unwisely and unjustly reprobated by teachers and hospital practitioners, and which now is scarcely ever heard of but as one to be utterly condemned.

During the last year, however, my hopes have been revived in the belief that physiologists and pathologists are returning to a wise reconsideration of the legitimate use of this effective agent—the lancet. First, as it was shown in the address of that acute observer, deep thinker, and worldwide-esteemed pathologist and physiologist, Sir James Paget—given by him before the assemblage of the British Medical Association at its meeting in 1874, at Norwich—in which he alluded with so much force of argument to the neglected practice of general bleeding in acute disease, and to its great value when adopted under the guidance of sound medical intelligence; and secondly, in the published opinions on the same subject, made by Dr. Richardson and others, who have had extensive and convincing experience in the proper use of the remedy, found in papers published in the medical periodicals.

I remember, also, that some years since I was present at a meeting of the Hunterian Society of London, when the late Mr. Selly read a paper on the subject of bleeding, in which he expressed himself very much in the same manner, and having the same object before him as Sir James Paget had in the address above alluded to, setting forth the neglect into which this remedy had unfortunately fallen, considering, as he did, its great value when used with sound discretion, and confining its use to cases in which recently established congestion or inflammation existed in vital organs—a state which if not unchecked in the early and first stages, so rapidly

runs on to destructive disorganization, such as sphacelus, abscess, dangerous hemorrhages (in the brain or lungs), dropsies, injurious adhesions, outpourings of coagulable lymph, and death, as well as in permanent enlargements and indurations of viscera, and many other chronic affections with which modern practice has continually to contend, and which, by the adoption of this remedy at the proper period, would often have been entirely prevented.

I am quite willing to acknowledge that there was a time when many men, guided by mere custom or ignorant routine, most inconsiderately bled, too frequently, and to a most injurious extent, by which recoveries were greatly impeded, and perhaps where even death was the result; but there never was a time when, in robust subjects attacked with acute local congestion, bleeding adopted at a sufficiently early period did not readily suspend excessive vascular action, and so tend to prevent subsequent disorganization. But I repeat, that it is only at a very early period that this remedy can be so advantageously employed; for, after the first stages of these affections are passed, seldom anything but disadvantage can be expected to follow, for then every drop of blood—the very "*pabulum vitæ*"—the essential material required to carry on the reparation of the damage done by the disease and restoration of the lost strength—and every means having reparation for its object, must be devised and adopted—*is* urgently wanted.

I will, however, most earnestly emphasize my fixed conviction, by declaring that nothing that I have observed in the extensive field of public and private practice, now protracted, as student and practitioner, beyond sixty years, has ever shown me that the abstraction of blood, under the circumstances described, has ever done harm, or has not been the most ready and efficient means of cure.

In the year 1847, during the notorious epidemic of influenza, then extensively prevailing throughout this country, and which was especially severe in the parish of Lambeth, in which at that time I was a district medical officer, very many cases of acute pleuro-pneumonia came under my treatment, which gave me a most extensive opportunity for observing the effect of general bleeding in acute disease. In one day, I and my assistants then saw as many as two hundred and thirty-four cases, almost all being lung and chest affections, more or less acute.

At that time I had a very intelligent assistant who had been for some time a pupil at one of our largest hospitals, where, for twelve months, he had been observing the practice of the physicians of the institution, and I shall never forget the astonishment which he expressed on seeing my treatment in a case of pleuro-pneumonia that occurred in a young and previously robust and healthy man. One morning, whilst he and I were engaged among a crowd of waiting people, a young woman, in a most excited state, rushed unceremoniously into the surgery, pushing the people aside, and with great importunity came up to me, exclaiming, "Oh, Sir, do come as soon as possible to see my husband, for he is dying!"

I asked her from what he was suffering, his age, and his business, when she answered—"He is a carter, and about twenty-six years of age; he was quite well the day before yesterday, until night, when he was seized with difficulty in breathing, a dreadful cough, and agonizing pain in the side; his face is now perfectly blue, and his hands and feet are as cold as ice."

As her importunity was so great, I said to my assistant, "This poor fellow is suffering from acute pleuro-pneumonia; go down, and immediately take from his arm twelve or sixteen ounces of blood."

Upon which he said, "I never bled in my life, and I have not a lancet." I then gave him a lancet and a short lecture on bleeding, and sent him off with the poor woman; very soon after which he returned, and told me that "the poor man was dying, and nothing would save him—indeed, he was pulseless and cold."

As soon as we had dismissed the cases surrounding us, we proceeded together to the patient's house, where I found him suffering in the manner described by his wife and by the assistant. I had seen cases much in the same state, but perhaps never under the same extremely alarming circumstances. His wife now repeated what she had told me before of his previous condition, adding that he had always been a most temperate man, and had never been ill before. Well, what was to be done to give him any chance of relief? I said to the assistant, "I shall at once bleed him." This evidently excited his ridicule. "What!" said he, "bleed a pulseless man?" "Yes," said I; "wait and see the effect of my attempt."

I first procured two large pails, and got them filled with water about 100.° Having placed them at the side of the bed, I cautiously raised him from the recumbent to the sitting position on the edge of the bed, and put each foot and leg into one of the pails. I then had two wash-hand basins nearly filled with water of the same temperature, and placed his hands and arms as deeply as I could into them. I then tied up his right arm, for the purpose of "raising a vein." At first, pulseless as he was at the wrist, no vein would rise, but after a minute or two a vein became sufficiently prominent to enable me to make a free incision into it; the first effect of this was that blood flowed only drop by drop, but in a short time a small continuous stream followed, until enough blood had passed to relieve the stagnant circulation, when the stream increased, and at last it flowed *pleno vivo*—upon which my young friend's formerly sceptical countenance changed, and began to brighten with evident astonishment, and he expressed his wonderment. By this time the pulse at the wrist had become restored to considerable power, the venous livid congestion of the face had greatly lessened, and very soon it entirely passed away. I now requested the man to inspire as deeply as he could, upon which he said the pain in the chest and side was greatly lessened. I still allowed the blood to flow, until sixteen ounces had been

collected in the basin, at which time he said he had no more pain, but he felt extremely faint; upon which, having secured the vein, I removed him from a sitting to a recumbent position, and gave him two grains of opium; after which, having darkened the room by drawing down the blind, we left him, having directed the wife to give him nothing but warm milk, and as much as he might be disposed to take; and if he should fall asleep, by all means to prevent his being awoke.

All this took place about mid-day, and at six in the evening we went again to see him, when we found him with a countenance bearing a natural aspect, pulse distinct and of moderate power, and about 100 in the minute; his breathing was very much relieved, but still more frequent than natural; but the pain in the side had returned to a slight extent, upon which I again tied up his arm, and, from the same orifice previously made in the vein, drew off, in a good stream, six ounces more blood; this entirely relieved him. I then repeated the dose of two grains of opium, and left him, having reiterated the instructions given in the morning.

From this time, by implicit rest, sedative diaphoretic medicine, counter-irritation by mustard-plasters on the chest, and light nutritious diet—chiefly milk—he day by day rapidly improved, so as to be able to return to his work after a fortnight's interval.

On observing the conspicuously sudden and unmistakable result which followed the bleeding, my young friend declared, as we walked from the house, that he had learned more of practical pathology, therapeutics, and physiology, relating to the functions of the heart and lungs, from this case and treatment, than he had gained by all his previous studies and observations made during the time which he had spent at the hospital, and in the course of his four years' previous apprenticeship, which he had passed in a large dispensary in a populous town in the West of England.

Innumerable cases of the same severe type as the one described—perhaps few of the same very alarming character—have been treated in like manner, and with the same success, in my experience, and especially cases of puerperal peritonitis, of which twenty-seven have fallen under my treatment within the last fifty years, one only of the number having proved fatal. Therefore, my faith in the judicious use of the lancet has never forsaken me during the protracted period of clamor which has so long existed against it.

It may well be asked why it is that, within the last thirty years, so great a revolution has taken place in the practice of medicine, and that teachers now almost universally reprobate abstraction of blood in the treatment of strongly-marked congestions and inflammations? The answer appears to me to be this—that cases such as I have described scarcely ever are admitted into hospitals in the very early stages, and at the time when this remedy can be advantageously used; for in most cases many days have necessarily intervened from the day when the attack first came on, to the day when thus admitted, and the time has gone by for the judicious abstraction of blood, and the stage of the illness has arrived when the repairing functions alone are to be considered and aided; and the patient has to be supported by tonics, cordials, and judiciously selected food.

Another great impediment has stood in the way of the practice of judicious bleeding, which is the strong objection felt by patients against submitting to any, the most trifling, surgical operation, which has been allowed to guide the decision of medical advisers too frequently. And I fear that a third cause may be found in the incapacity and bungling in the performance of the operation felt by some unpractised hands.

If the abstraction of blood in all cases be so universally injurious, as many pathologists have taught, why is it that in so many cases of extensive hemorrhage, produced by natural causes, so little injury is known to follow?—as in epistaxis, in cases of vertigo, in which pints have been lost within a few hours, and fatal apoplexy has been averted; or in hæmatemesis, in cases of gastritis, when immense quantities of blood have been vomited, and nothing but the cure of the patient has been the result; or in cases of post-partum hemorrhage, or in miscarriages, where women have lost enormous quantities of blood, when the normal quantity has been soon restored, and no anæmic evils have, after a time, been left.

There will not be many more years left to me, at my advanced stage of life, to observe what beneficial consequences may follow this apparent returning prospect of good practice; but I do hope, from the present scintillation of light breaking on the horizon, that the bright day of common sense is not far off when the lancet will be restored to its too-long-lost legitimate use; but I do trust that it never will again be used in the same careless, reckless, irrational manner, as in times now happily long passed, nor to the same damaging extent as we have heard of as still prevailing in a Southern State, where, by the repeated and unwarrantable abstraction of blood, not only the life of a great statesman of its own is said to have been sacrificed, but also that of one of our own most highly talented artists, for a time happening to fall ill whilst there visiting, both of whom, by report, seem to have been little short of bled to death.

Let, then, the poetic advice set forth by Ovid, as given by Sol to Phœbus, familiar to us in our school-days, and quoted at the head of this paper, be our motto and guide in the future use of our lancets, which, when simply translated, means, Avoid extremes!—*Medical Times and Gazette.*

ON PILES, THEIR DIAGNOSIS AND TREATMENT.*

BY ALFRED COOPER, F.R.C.S.

From the *London Medical Examiner*, Feb. 10, 1876.

Piles is the popular name for the second most common disease of the rectum; not the most common, as one would think, by every disease of that region

* Read before the Harveian Society.

being called piles. It is common, on asking a patient who comes before me for the first time, at a certain special hospital to which I am attached, what he complains of, to receive as answer "Piles." "Who told you so?" "My doctor." "Did he make any examination of the part?" "No." "What did he give you?" "A brown ointment to use and some brown stuff to take." Gentlemen, I have seen fistula, fissure, mucous tubercles, stricture, cancer, foreign bodies, (such as fish-bones) and pruritus, treated by these two universal remedies—the ointment causing, as you may imagine, generally an increase to the pain from which the patient was already suffering enough. The rectum is almost, if not quite, the most sensitive part of the body, and its diseases cause as much suffering as any other part, and therefore we cannot be too careful in our diagnosis.

To diagnose "piles" is very easy, you would say, but I have seen several cases where mistakes have been made by surgeons attached to our large hospitals, simply from a want of care in their diagnosis. One case, I remember, which I asked my colleague, Mr. Allingham, to see with me, in which a celebrated hospital surgeon was going to operate for internal piles on a patient who had cancer of the rectum in a very advanced condition. Also another case which occurred lately, in which I was asked to remove some external piles, said to be so by a surgeon of one of our large hospitals, who had made no internal examination, and ordered lead lotion externally. I found a large polypus attached to the front wall of the rectum, but no external piles. To diagnose an external pile is a very easy matter; if you just separate the buttocks and look you will find, if there be one, a round dark-looking swelling, having a smooth surface, and feeling very tense in its consistence, the patient complaining of great pain when the swelling is touched. An external pile is venous in its character, and consists, as a rule, of a clot of coagulated venous blood held in a small vein, or extravasated into its neighboring tissue, and is generally caused by some stoppage to the return of blood through the liver, and is commonly produced by errors in diet, and sitting in damp places or on wet saddles.

It is common to call all pieces of redundant skin in this part external piles, which is quite a mistake, as they more frequently indicate mischief inside the bowel.

To Diagnose Internal Piles.

If a patient tells you that, on going to the closet, something always protrudes, you had better give him an enema of warm water, and ask him to go to the closet, and when the water has come away to put a towel to the part and come and lie down on the sofa. Then you can see what it is, and, as a rule, you will find one or more tumors, which your patient will say came down when at the closet, which may bleed or not, and which go up of their own accord after keeping quiet a short time; this is the first stage of internal piles. In the second stage they come down, and have always to be replaced. In the third stage they come down on the least exertion, and it is difficult to keep them up when replaced. In this stage, not unfrequently, they come down and remain down, and nature herself operates on them by strangulating them with her ligature the sphincter, and they slough away.

Internal piles are composed of large dilated blood-vessels, united by connective tissue and covered with mucous membrane, which usually bleeds at the slightest touch; they are sometimes more arterial, sometimes more venous in their character. They are caused like the external by some stoppage in the circulation of the blood, and are produced also, like them, by errors of diet and a sedentary life, but, unlike the external piles, they are often hereditary.

Gentlemen, I hope I have shown how very easy it is to diagnose "piles," and I would most strongly suggest that you always make a proper visit, and tactile examination of the rectum before giving an opinion, and not attempt to diagnose diseases of this part by looking at your patient's tongue, as was the custom of a certain American doctor, who once told me he could usually tell when a patient had rectal disease, or any other, by certain marks on his tongue.

We now come, gentlemen, to the treatment of piles.

We must first try and remove, if possible, the causes, by attending to any errors in diet, or mode of living, and regulating the action of the bowels; the liver, too, should receive our special attention. Our next treatment should be local, cold applications, as a rule, being better than warm, except for external piles, in pregnancy, when warm applications are best. For external piles I prefer astringent lotions to ointments, and never use gall ointment, as I have seldom seen it do any good when ordered by other surgeons, and it is a very dirty application. Ointments are more useful when any abrasion of the skin or ulceration co-exists with an external pile. Should this treatment fail to give relief, I incise the piles and let out the clot, and then use cold applications, and I have never seen any ill consequences follow the treatment.

The treatment for internal piles must also be to try and remove anything causing obstruction to the return of blood by paying particular attention to the regular action of the bowels, by getting them to act before going to rest (a great comfort to patients who have to work during the day), to bathe the piles when they come down with cold or iced water, and always carefully to return them with a little simple ointment. By these means patients may go on for a long time, without sufficient inconvenience to cause an operation to become necessary.

We now come to the question, When ought we to operate to remove internal piles? *Never*, if the patient is a full-blooded person, who has suffered from congestion of the head, which is always relieved by the bleeding from the piles, or in patients who have periodical hemorrhage from their piles, with relief to themselves. I have seen two deaths follow soon after the operation where this rule had not

been adhered to; the patients both died from apoplexy. Be careful to examine with the finger to find that no more serious disease exists. The cases for operative interference are those in which the patient has become quite emaciated from loss of blood; also, those cases where they cause great discomfort by the constant irritating discharge from them, and nearly always in the third stage, when they remain down, and prevent a patient moving about.

There are three ways of destroying internal piles; by the ligature, by the clamp and actual cautery, and by nitric acid. I have seen the ligature used by my colleagues, and have used it myself now for eleven years, without a bad case, nor have we had a case of pyæmia (in over four thousand cases at St. Mark's Hospital) occurring after the operation. The operation we do at St. Mark's Hospital, and which was handed down to us by Mr. Salmon, is to pull down with a fork, or vulsellum, the tumor, and with a pair of scissors divide it from the skin, cutting in the groove you will always find between the skin and mucous membrane, and in a straight line with the bowel. Then your assistant lifts up the pile, and you place your ligature in the cut you have made; your assistant then pulls the pile down over the ligature, and you tie it at its base and return it, or cut it off as you like and remove any external redundant skin you may think necessary, being careful not to remove too much. The ligatures generally come away in four or five days, and the patient is about again in seven or ten days. The old method of transfixing the pile with double ligatures and tying each half, is still practised, I believe, by some of our hospital surgeons; but it is not, I think, so good an operation. The clamp I seldom use, as I have not found any of the advantages claimed for it over the ligature. Nitric acid I have left off using, except in slight cases (when it astringes them up very successfully), as I have had two cases of severe hemorrhage following its use when the sloughs came away; and my colleagues have also had severe hemorrhage occurring after the application of nitric acid.

Gentlemen, if this paper will cause any of my professional brethren to be a little more careful in their examination of the rectum, which still seems to be a "terra incognita" in the domain of surgery, it will more than repay the trouble I have taken in putting these few words together.

ON THE TREATMENT OF DIARRHŒA IN YOUNG CHILDREN.*

Diarrhœa in young children, particularly in those under two years of age, and in the summer season, usually begins very assiduously, and not unfrequently results from a slight chill, or a meal of improper food which excites a little irritation of the stomach and bowels; a protracted and high temperature in a large city (though something more than temperature is concerned in the production of the disease), particularly in overcrowded districts, enters largely into the etiology of the affection.

The irritation when once set up is easily maintained by causes the same in kind (although less in degree) as those which originally provoked it, and a chronic affection is brought about which may become less and less amenable to treatment the longer it continues.

A child from six months to two years old, living in a large city during the summer season and perhaps in an overcrowded neighborhood, gets some indigestible substance into its stomach or perhaps takes cold, and soon afterwards the bowels become slightly relaxed; perhaps among the poorer classes an inferior quality of milk (skim-milk, slightly sour or adulterated milk) has been given to a child recently weaned; in such instances the purging is neither severe nor of long continuance; it speedily ceases and the child appears to have recovered. The bowels, however, do not return to a healthy condition, and the complaint then is that the bowels are constipated; perhaps two or three days later the child will have two or three large, sour, pasty-looking dejections, more or less slimy from the mucus with which they are mingled, and passed with considerable straining efforts and much apparent discomfort; the dejections may then become more frequent, and occasionally they will be streaked with blood; febrile movements may occur, and there may be more or less abdominal tenderness. * * *

The presence of undigested food in the dejections of a young child, especially if that child exhibits evident marks of deficient nutrition, is an indication that the diet is not suitable and that it should be changed. Whether the digestive weakness be a simple functional derangement or be due to the existence of organic disease, in either case our object is the same, namely, to adapt the child's diet to his powers of digestion, so that the food he swallows may afford him the nourishment of which he stands in need, and may leave as little undigested surplus as possible, to excite further irritation of his alimentary canal. The accurate adaptation of diet is by no means an easy task in such cases; children at the breast and under good hygienic influences are not usually affected with this disease; articles of food from which a healthy child derives his principal support will here often fail altogether; even milk, our greatest resource in all cases of digestive derangement in children, must sometimes be dispensed with; up to a certain time farinaceous food should be given with the utmost acution. It is not very uncommon to find cases where milk, whether diluted with water or thickened with isinglass, or with farinaceous food, cannot be digested so long as it is taken. The pale, putty-like matter of which the dejections consist, and which is passed in such large quantities, is evidently dependent upon the milk-diet, and resists all treatment so long as that is continued. In such cases, which occur most commonly in children between one and two years of age, the milk must be replaced, either wholly or partially, by other food. The isinglass and milk alluded to above was, I believe, first introduced by

* Read before the Boston Society for Medical Observation.

Dr. Meigs, of Philadelphia, and in certain cases is much esteemed by Dr. Morrill Wyman of Cambridge. To quote Dr. Wyman, he says: "I have used gelatine with milk for children and adults with delicate stomachs, and I think with advantage; cases of diarrhœa in which the milk is passed in curdled masses undigested, seem to me to be considerably relieved by the combination. My theory is (I do not think much of theories in medicine), that the gelatine prevents the coagulation of the milk, which is then in a better condition to be acted upon by the digestive agents. The proportion of gelatine is about one teaspoonful, to be dissolved in water and mixed with a half pint of milk. This proportion is less than is required for blanc mange."

Liebig's farinaceous food, or Liebig's soup, as it is called, is tolerably well borne in many cases, and it is occasionally advisable to try it. It is well known that flour is incapable, or only partially capable, of digestion in the stomachs of infants, while it is equally well known that at a later period the power to transform starch into sugar and thus digest it, is increased.

It is found that this deficiency in infancy is owing to the absence of a ferment in the stomach, and in using Liebig's soup this effect is presumed to be supplied by the presence of diastase in the malt, which, acting as a ferment, causes the desired change in the flour to be effected. That this action will take place to a certain extent with the properly prepared malt flour is certain; but it remains to be proved whether it enables the whole of the flour to be thus transformed.

It is needless for me to give the directions for preparing this soup, as they have already been published in the *Journal* several times.

The food ("soup" seems a misnomer) is not a substitute for milk, since milk itself is an essential element in its preparation, but it is really an improved mode of giving milk with flour or other farinaceous material. Its real merit consists in adding a material to the flour which will aid the stomach of the child and infant to digest it, and that which remains for investigation is the proof, to be derived from the evacuations, whether such aid has been effectual. This may be ascertained roughly in any case by noting the size of the stools. A trial should be made with the milk and flour alone, and then with the food according to Liebig, and if the dejections are as large in the latter as in the former, it may be safely inferred that the food has no special advantages over the use of boiled milk and flour. As the stomach of a child of three years, and probably of one between one and two years, can digest flour and transform it into sugar, this preparation offers scarcely any appreciable advantage to them over the long-established one of well-boiled milk, flour and sugar. When cream (or good first-class milk) can be obtained for infants, it is beyond all comparison the best food for them, and no addition of any kind should be made to it; and hence for the children of the rich and well-to-do classes, Liebig's food is scarcely necessary. As regards cream, Dr. Van Wyck, of San Francisco, says, "For twenty years I have discountenanced the use of diluted cow's milk, substituting properly diluted and sweetened fresh cream, solely on the ground that a nearer approximation to woman's milk can be effected than in any other way known to me; and hence there is less liability to produce injurious effects. Apart from this I think there are often good reasons for using only the cream which rises after the milk has stood some twenty-four hours. Very much of the milk sold in our cities and towns is adulterated in various ways, and in many instances when such is not the case, the cows are improperly fed and cared for.

'By using the cream only we avoid, in the first instance, the adulterating materials, and, in the second, we are enabled to give a less quantity of a diseased or abnormal secretion.

"Having obtained a quart or more of the purest attainable milk, set aside for twenty-four hours, and then skim off, but not too closely, the cream. As the cream of cows differs in richness from a number of causes, it is impossible to give in figures the amount of water necessary for the proper dilution. I therefore direct the cream to be diluted with boiling water to an extent that will make it as near the richness of the mother's milk at that period as possible, adding enough sugar of milk to bring it up to the natural standard of sweetness. I prefer the milk sugar to the cane or beet sugar, for the reason that, should acidification occur, we have in the former lactic, whilst in the others acetic acid as a result. To be as explicit as possible, I should say that with the cream afforded from the milk ordinarily served to purchasers, the following formula will be found very nearly correct:

Child in good Health.	Cream. Parts.	Boiling Water. Parts.	Milk Sugar Parts.
One week old,	1	11	25
Two weeks old,	1	10	25
Three to four weeks old,	1	8	25
One to two months old,	1	7	25
Three to four " "	1	6	25
Four to six " "	1	5	25
Eight to ten " "	1	3 to 4	25

"Should this prove too strong, it will be necessary to make a further dilution with, if needed, an alkali, to prevent acidification."

A certain amount of lime-water is generally ordered to obviate this result; but experience has proved that the bicarbonate of potassa is preferable, for the reason that as an antacid it is equally efficacious, while it prevents the formation of so solid a curd, and thereby renders it more soluble.

There is nothing better in the way of farinaceous food, than the barley prepared by the Messrs. Robinson, of England. I usually make it according to directions accompanying the article, varying the amount of barley and milk according to the age of the child, character of the stools, etc.

Whatever be the diet adopted, our object is to keep up the nutrition of the body with the smallest possible amount of irritation to the alimentary canal; and the food, whatever it may be, which will produce this result, is the food best suited to the case; drugs alone will be powerless. The successful adjustment of the diet, an adjustment in which the

quality and quantity of food to be allowed for each meal are accurately adapted to the powers and requirements of the patient, is a matter which can be properly learned only by experience.

In all cases, if the patient be a nursing child he should be limited strictly to the breast; or if he have been only lately weaned, the breast should be returned to. If from any reason a return to the breast is impossible, we should try one of the articles above mentioned.

If the child be no more than six months old, nothing should be allowed but milk or some preparation of milk. If the child be very ill, beware of feeding too often, particularly if farinaceous foods enter largely into the diet; if they excite flatulence, or any sour smell be noticed from the breath or evacuations, the quantity of such food should be diminished, and perhaps discontinued altogether. Beyond the age of six months, beef tea, raw beef, yolk of an unboiled egg, may be added to the diet. The egg is best digested when beaten up with a few drops of brandy.

If, as before stated, on giving the cream, acidification takes place, give an alkali (potass. bicarb.), and it should be added to the fluid in the proportion of little less than a grain to each fluid ounce, and if curd is found in the excreta the amount should be doubled. It is difficult to overestimate the value of alkaline remedies in the treatment of digestive derangements in children.

In all children, in infants especially, there is a constant tendency to acid fermentation of their food. This arises partly from the nature of their diet, into which milk and farinaceous matters enter so largely; partly from the peculiar activity of their mucous glands, which pour out an alkaline secretion in such quantities. An excess of farinaceous food will therefore soon begin to ferment, and an acid to be formed which stimulates the mucous membrane to further secretion; hence alkalies are useful firstly in neutralizing the acid products of this fermentation, and secondly, in checking the too abundant secretion from the mucous glands. Potash or soda may be used; of the two the former is perhaps to be preferred, as, being a constituent of milk, the natural diet of children, it may be considered less as a medicine than as a food.

The alkali should be combined with an aromatic; it is important that the latter be not omitted, for this class of remedies is of great value in all those cases of abdominal derangement where flatulence, pain, and spasm, resulting from vitiated secretions and undigested food, are present to increase the discomfort of the patient; such phenomena are usually rapidly relieved by the use of these agents; and the employment of anise-seed, cinnamon, caraway seed or even tincture of capsicum, in minute doses, will be found of material advantage in combination with the other remedies which I will shortly enumerate. If called to a child say eighteen months old, with bowel trouble, I usually order cream, or barley with milk, and give the mother the following prescription, telling her to add a teaspoonful or two of the mixture to each teacup of the fluid:—

℞ Potassæ bicarbonatis ..... ℈ j
Aquæ cinnamoni ..... ℥ ii. M.

If the child be so ill that he takes but a small quantity at a time it may be well to give beef-tea (made in a bottle, or the juice of a steak slightly broiled and squeezed in a lemon squeezer) in conjunction with the milk; a teaspoonful may be given occasionally, and its digestion will be aided by adding a pinch of saccharated pepsine to each teaspoonful of the juice or tea. In some cases the child should be fed frequently, little at a time in order to sustain life, but not so frequently, or in such quantity as to give the digestive organs much to do. The object is to give the child just food enough to sustain life till the digestive organs have recovered their tone. It is better that the child should be hungry than have his stomach overloaded. Stimulants may be required, and, in fact, they are always required, when the fontanelle becomes much depressed.

If the stools are loose and are passed frequently, two or three grains of subnitrate of bismuth may be given, and if much straining be noticed a drop of tinct. opii. deod., or a little Dover's powder will be a useful addition to check the abnormal briskness of peristaltic action.

Enemata of the fluid extract of krameria containing tr. opii. deod., are occasionally useful. If an aperient is required, there is nothing better than castor oil, or the tincture rhei aq. of the German Pharmacopœia. The latter is an alkaline tincture, and is an exceedingly useful preparation. It is made as follows:

℞. Rhubarb.....	100	parts.
Borax	10	"
Potass. carb.....	10	"
Pour upon this boiling water	850	"
Set aside for 15 minutes, then add alcohol.....	100	"
Then add cinnamon water.....	140	"

So long as the tongue remains furred, or the dejections acid (litmus paper), the alkali should be persisted with, and the aperient may be repeated every third morning.

Alteratives (calomel, etc.) are in these cases of little value. It is useless to stimulate the functions of the liver. Under the use of antacids, aromatics, etc., food soon begins to be digested and the appearance of the stools becomes more healthy.

As soon as convalescence is fairly established, iron and cod liver oil may be given. To ascertain whether the child is actually gaining, it will be well to have him weighed as often as once a week.

This treatment, when reviewed, may to some seem like hypermedication; but all that we have advised are in reality food with the exception of the bismuth powder and the aromatic.

The alkali, pepsine, and stimulant, are no more medicine than milk, barley, and beef tea.

A point which must not be overlooked in these cases is attention to the action of the skin. In all

abdominal derangements in children the cutaneous secretion is apt to be suppressed early, and the skin soon becomes dry, rough, and harsh; when this is found to be the case the child should be bathed every evening with hot water and be then freely anointed with warm olive oil. By this means the suppleness of the skin is soon restored. Warm clothing should be worn, and a flannel swathe around the abdomen to serve as a protection to the belly.—*Boston Med. Jour.*

PRACTICAL REMARKS ON THE CAUSES AND TREATMENT OF SOME COMMON FORM OF VOMITING.

By Dr. Paul Henry Stokoe, A.B., Peckham Rye, S.E.

The most severe and protracted attacks of vomiting I have witnessed have ensued from over-stimulation during pregnancy: under which circumstances there has existed a condition of the volition so disorganised as to reduce the power of self-restraint to total abeyance; the miserable sufferers, finding it impossible, in their intolerable drought, to refrain from incessantly imbibing huge draughts of any handy thirst-quencher, to the serious augmentation of their distress.

In these cases the firm hand and inflexible will of an experienced nurse will alone supply that element of control which is wanting; and, if we are sufficiently explicit in limiting the quantity of liquid to be taken and exact as to its quality, we may expect the more urgent symptoms rapidly to subside; we shall then be in a position to administer such medicaments as the irritable condition of the stomach requires, while the uterine derangement will be best met by the contact of pessaries containing belladonna and opium with the mouth of the womb. It may be remarked, by way of caution, that the above-mentioned condition is sometimes associated with albuminous urine, even in the earlier months of pregnancy; and when it is so the young and over-anxious practitioner must not be too prone, in the absence of other reasons demanding his interference, to induce abortion; as he will almost invariably find that the albumen will disappear with the evolution of the fœtus long before danger-point is reached.

Less severe but more numerous are the cases of vomiting which result from gastric irritation brought on by alcoholism without other complication; and in them we have almost every conceivable difficulty to contend against. An infatuated patient who deceives both you and herself; a disease constantly recurring from the repeated application of the exciting cause; an obscure train of symptoms, often with the impossibility, or inadvisability at least, of putting leading questions, which are likely to arouse a spirit of opposition; while we ourselves are swayed by conflicting feelings of sympathy and reprobation; so that we cannot too carefully investigate the symptoms (mostly subjective) which characterise alcoholism in its earlier stages. We may at the outset observe that there are two well-defined conditions of alcoholism in which vomiting is a prominent symptom. In one the vomiting is the result of an oft-repeated debauch, of the previous night perhaps, in which case we may trust to the offender's sensations of wretchedness, backed by the more material agency of the vomiting, to work a cure, for the present at least; in the other the vomiting is due to altered gastric secretion and to degenerative changes resulting from chronic inflammation of the coats of the stomach; a condition which is more or less remediable, until, through long continuance, thickening takes place locally, the vital organs become congested, and the digestion and other functions of life are permanently impaired. My experience compels me to affix the stigma of frequency in this latter form of vice on the female sex, men being more prone to the less secretive modes of indulgence. If the patient be a gentlewoman she will never acknowledge her weakness until recurrent attacks render it patent; hence it is of much importance that we do not overlook the obscure signs which mark the complaint in its infancy. You will find the subject of it a nervous, fluttering, excitable creature; restless and incapable of carrying out any settled plan or occupation, or of taking rational interest in anything. She is no reader, rarely if ever a good domestic manager, as the ill-conditioned appearance of her household testifies; but is rather the victim of the vapours and general malaise: she is greedy of change, must have excitement, may be at the theatre, not seldom at the conventicle; is the subject of neuroses, which may have a gouty or rheumatic source, or originate in nervous degeneration from alcohol. She is hysterical in fact, sometimes from a recent quarrel with her unfortunate helpmate, sometimes from pangs of remorse at her wretched infatuation. We shall find that her tongue is usually coated, especially of a morning, with a thick creamy fur; but sometimes it is preternaturally clean and glistening; it is also tremulous, her feet being equally so; while this unsteadiness is less noticeable at first in the hands. The breath may be sickeningly offensive; nausea or vomiting is seldom absent, and is most common in the earlier hours of the morning. Diarrhœa is also a very frequent concomitant, coming on before she leaves her bed, and going to the extent of five or six loose bilious evacuations in the day. Sleeplessness, too, is a constant and great aggravation of her sufferings.

She will assign fifty different reasons for her ill-health; all in the absence of signs of organic lesion, insufficient to account for the frequency of the attacks. You will probably ascertain sooner or later that she does not intrust her health to you alone, but is in the habit of procuring other advice in order that your suspicions should not be excited by a too frequent recourse to your aid. Under these circumstances you will act wisely in putting a direct question to her husband if she have one; and if not (for old maids and young ones too, and widows when disappointed of their proper *rôle* in life, too often substitute an unnatural for a natural excitement), you must make an opportunity of questioning her friend or servant—and herein is no breach of confidence—and having by this means put your hand on the diseased spot kindly and seriously tell her what is the cause of her

ailments and what their only cure. When a lady has once constituted her medical attendant her father-confessor it is marvellous with what assurance she will on each repetition of an outbreak confide to him the cause.

Need anything be said about remedies in such a case? The bane and antidote are both before her. The water she mixes with her brandy (for, sad to say high-born women are not above this vulgar drink!) will, if taken pure and simple, soon cast out the evil spirit; but unfortunately it requires a steadier hand and a stronger will than hers to pour it out and convey it to her lips; and if she will not consent to place herself under some restriction, such as that of a sensible friend or a trained nurse, it will be found that all attempts at amendment, however sincere and well-directed, will be frustrated by a constant turning aside from the use to the abuse of stimulants. The approved remedies, ice, effervescing draughts of soda-water and of citrates of potash and ammonia, bismuth and prussic acid, will, so long as stimulant is refrained from, afford relief; and sometimes under the attacks of horrible depression, from which the dipsomaniac is wont to suffer, dry champagne or brandy and soda-water will be required, but nothing short of total abstinence will effect a permanent cure. It is so much easier to give utterances to promises of amendment when sick than to carry them out when hale, that we may expect the most solemn assurances to be again and again broken, until the patient declines from the pitiable condition of the occasional toper into the disgusting state of the confirmed drunkard. Meanwhile all the resources of therapeutics will have been exhausted; treatment which has proved beneficial in one attack fails in the next, and we run through over an over again in every possible combination the catalogue of effervescing salines, opiates, belladonna, creosote, bismuth, and so on; we apply cataplasms and wet compresses to the epigastrium, or more powerfull still blisters (which not inappropriately carry with them some punishment), and sometimes sprinkle morphia in half-grain doses over the vesicated surface, or use the more trustworthy hypodermic injection of the same. If she be warned in time and amend before it be too late iron combined with ammonia will serve as a temporary substitude for the alcohol until such time as the nervous forces be restored, and nux vomica will be found to materially assist the flagging energies of the digestive and nervous systems.—*Guy's Hospital Reports*, 1875, *p.* 486.

ADMINISTRATION OF CASTOR-OIL.

M. Potain recommends as the best method of concealing the unpleasant flavor of castor-oil to squeeze half an orange into a glass and poor the oil upon it; then, avoiding all disturbance of the liquids, to squeeze the juice from the other half of the orange carefully over it. The oil thus inclosed between two layers of orange-juice can be swallowed without the least perception of its flavor.—*American Practitioner.*

DIPHTHERITIC PARALYSIS.

Prof. Bouchut, in a Clinical Lecture delivered at the Hôpital des Enfants Malades, said he had long been of opinion that the paralyses observed during the convalescence from diphtheria are a result of anæmia, hydræmia, or "*hypoglobulie.*" This is, however, a theory that is open for reconsideration. Others regard them as specific paralyses—*i. e.*, connected with an infection of the blood by means of a principle derived from the prior disease; thus admitting paralysis caused by a diphtheritic principle, just as a syphilitic paralysis is connected with a syphilitic diathesis. This, too, is only an hypothesis; and if this theory of the paralysis of convalescence is to be admitted, we shall have to distinguish, besides the diphtheritic paralysis, the pneumonic, the typhoid, the scarlatinal, etc., paralyses—which is inadmissible. It is in another direction that we should seek for the cause of these paralyses, and especially the diphtheritic, which is the most serious of them all.

This commences by dysphagia of liquids—*i. e.*, with paralysis of the velum, with return of drinks by the nose, and by *nasonnement.* Then come incomplete amaurosis, and paraplegia, which may become ascendant and attack the diaphragm; and sometimes, hemiplegia, strabismus, etc. When the paralysis attacks the respiratory muscles, death is almost certain. There are cases in which, when the paralysis has become thus general, a singular condition of the patient is brought about, characterized by the dislocation of the limbs and the neck. Thus, I had a little girl in my wards, the subject of pharyngeal paralysis and ascending paraplegia, who was reduced to the state of a supple puppet, her head and four extremities falling without support or resistance in the direction of their gravity. When raised, her head fell backwards or to one side, just like that of a corpse. The case now under consideration is a curious one, being that of a little girl four years of age, whose father and brother died of croup at the same time that she was suffering from diphtheria, with two buboes under the angle of the left lower jaw. She was cured, and eight days afterwards she became the subject of *nasonnement*, without the rejection of drinks by the nose. She had convergent strabismus of the left eye, *i. e.*, paralysis of the external ocular motor; an incomplete paralysis of the diaphragm and of the abdominal muscles, which did not contract under the influence of tickling; and a complete right hemiplegia, extending even to the face, and producing a deviation of the mouth to the left. This is very rare in diphtheritic paralyses, in which we much oftener meet with paraplegia than with hemiplegia. Under the influence of the induced current, quinine, iron, and wine, continued during a month, the strabismus and hemiplegia have disappeared, and the child will be able to leave the hospital cured.

In twenty-two out of twenty-six cases of diphtheritic paralysis, double neuro-retinitis has been met with, characterized by a flattening and reddish diffusion of the papilla, the edges of which are effaced

and veiled by a reddish-gray cloudiness. This is the most ordinary appearance, but in other children the retina is rendered opaline around the nerve by what is termed a retinian exudation, but which is only an acute steatosis of the nervous elements of this membrane. The vessels present nothing remarkable. In presence of so many facts establishing the habitual coincidence of different degrees of neuro-retinitis in very severe and extensive diphtheritic paralysis, it is difficult to believe that convalescence and hydræmia are its sole causes. A new problem offers itself for our consideration, and we have to seek whether these paralyses are not the result of changes in the central portions of the nervous system, and what these changes are. From neuritis and neuro-retinitis accompanying disturbances of the nervous system, we must conclude as to the existence of a nervous alteration in the nerve within the cranium as far as its origin, and consecutively a central organic nervous alteration. How is such an alteration brought about in simple or diphtheritic angina? It is the result of an ascending irritation of the pharyngeal nerves, which is transmitted to the mesocephalon at the origin of the glosso-pharyngeal nerve—an irritation which, according to its extent, gains the origin of the neighboring nerves, and redescends by them to the optic nerve, the external oculo-motor, the nerves of the limbs, of the abdomen, or the chest, giving rise to hemiplegia or paraplegia, and paralyzing the diaphragm and the intercostals, so as to diminish respiration and hæmatosis. The same course is observed in wounds of the nerves of the eyebrow emanating from the fifth pair, when the inflammation may redescend the optic nerve, and give rise to hyperæmia of the papilla, to be followed by atrophy and amaurosis. So also, in some dental affections, neuritis of the superior maxillary nerve may be produced.

After adverting to various examples of changes induced in the nervous centres by peripheric lesions, Prof. Bouchut concludes by observing:—

"All agree in the most significant manner, in the establishment of the organic nature of the diphtheritic paralysis. First, clinical observation shows, in a whole crowd of cases, that peripheric neuritis may extend and mount up to the origin of the nerves in the cerebro-spinal centres; vivisections show the tearing away of nerves followed by central myelitis, the ophthalmoscope habitually reveals a congestive lesion of the optic nerve, and a granulo-fatty retinian peripapillary exudation; and autopsies have shown in some of these cases the existence of lesions of the medulla. This is more than is required to found a firm basis for the doctrine of cerebro-spinal lesions following diphtheria, in preference to the theory of the essential character of diphtheritic paralyses. These results are of great therapeutical importance. From the moment that we are able to believe in the existence of a congestive neuropathy produced by diphtheria, and inducing paralysis, the indication of tonics becomes formal. Iron, quinine, wine, good nourishment, electrization, and hydropathy are the means to be resorted to with most advantage. Among these, electrization and hydropathy, combined with substantial alimentation, are the most preferable; for quinine and iron, although useful adjuvants, are yet only adjuvants. In the employment of electricity in diphtheritic paralysis the currents by induction are to be used, the continuous currents, so useful in the myogenic or essential paralysis of children, not being here necessary. A feeble current that is easily borne should be directed for from five to ten minutes daily to the velum, the limbs, and other paralyzed organs. Hydropathy also should be employed twice every day, the douches only being continued for a quarter of a minute, so that prompt and complete reaction may be obtained. If the douche be too prolonged, there is no reaction, and the remedy does more harm than good. Alimentation must also be conducted with discrimination; for if there be paralysis of the velum, but little of liquid aliments or drinks should be given, in order to avoid their return by the nose or their penetration into the air-passages. It ought to consist in thick porridge (*potages*), underdone meat, and well-cooked feculent vegetables. Under this treatment it is rare not to find diphtheritic paralysis soon disappearing."—*Med. Times and Gazette*, Sept. 25, from *Gazette des Hopitaux*, July 20 and 27.

ON SYCOSIS; A CLINICAL STUDY.

By A. C. Smith, M.D.

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The common form of sycosis is the appearance of one or more tubercles on the bearded portion of the face. These tubercles grow slowly, the centre becomes covered by a crust, on removing which are seen the mouths of the hair-follicles, filled with pus. Generally after several weeks, a softening takes place, which commences in the centre of the tubercle and often rapidly involves the periphery; the result is a deep ulcer, with sharp edges, and a dirty-colored, yellowish base. In cases where the peripheric part of the tubercle has not been involved by the mortification, the edges are thick and inverted, not unlike those of an ulcus callosum. The hairs on the softened spot partly fall off, or become loosened, and finally there is left a cicatrix, either quite bare or thinly covered with hair.

It is not only in the beard and eyebrows that these tubercles are found. This form of sycosis, as well as those described afterward, may also exist on the cheeks, on the nose, and on the forehead.

It is necessary here to mention a symptom that is most easily observed on parts of the face covered with lanugo, and which has a diagnostic signification in cases where the characteristic eruptions in the beard fail, or where a multiple eruption over the whole face may cause an error in diagnosis, viz., that the tubercles or ulcers are often surrounded by a dirty-red patch a little elevated, and especially conspicuous on a pale face. This patch presents several peculiarities. The surface is first smooth, later it often becomes wrinkled, and then the pro-

minences appear filled with a serous fluid, all of which can easily be observed with the naked eye. This condition is followed by softening, which generally commences from the edges of the ulcer, and may extend over the whole patch or only a part of it. The field is seldom regularly limited; in some places the circumference may be curved, in others straight and angled, so that the whole may present the aspect of an irregular polygon, in which the ulcers may have a more central or a more peripheric seat. It is of importance to notice this irregularity of the circumference of the injected patch, because it shows the injection to be something different from the common congestion surrounding an inflammatory focus, and to have its full value as a specific symptom.

What further proves the significance of the patches described is that they may exist alone, not being an appendix of an ulcer or a tubercle. Such independent fluids may be found on old nasi. Having lasted a long time and presented the characteristic signs, they usually submit to a partial or total softening that shows itself by the formation of a crust. Yet the destruction in these cases is not so deep or so rapid as in the cases previously described; the ulcer becomes more superficial, but of the same torpid character. It heals up, leaving a depression in the skin of irregular form, either quite smooth, or partly deepened, or like a furrow. Where the whole spot is not involved by the softening, it may partly resume the normal aspect of the skin.

This phenomenon constitutes the second form in which sycosis may manifest itself. There is still a third.

This is characterized by small, thin crusts covering the mouths of one or more hair-follicles. If the coexistence of the tubercular form have not led the patient to a frequent and minute observation of the surroundings, these crusts are not easily noticed, because they are not accompanied by tumefaction of the skin. By-and-by they grow thicker and assume a dirty-yellow color, and they adhere rather firmly. Having removed them, one sees on the surface below acute prominences that present casts of the hair-follicles. Likewise here, as in the tuberculous form, the thicker and deeper-rooted hairs are more firmly adherent, while the more delicate are more easily cast off, sometimes following when the crust is lifted up; yet in general the hairs are not so liable to loosen in this form. The openings of the follicles present themselves dilated and more or less excoriated in proportion to the duration of the crusts. If the process be allowed to follow its own course it will lead to ulceration, which in these cases too has a slower development, and remains more superficial than in the tuberculous form. Where the process has gone so far as to ulcerate, depressions are left in the skin like those resulting from softening of the patches described.

It has been said above that this formation of crusts is not usually accompanied by tumefaction, yet it has been observed in one case of an eruption on the nose and one cheek. Around an ulcer on the nose, the result of a softened tubercle, with sharp edges, without any patch of the kind described, there arose on the normal skin a regular circle of separate noduli, of the common color of the skin, feeling like the eruptions of tinea herpes. After some days there were formed on the tops of the knots small crusts of the same character as those formerly described. They adhered firmly, and in removing them several casts of the subjacent follicles followed, and some delicate hairs were loosened. The opening of the follicles appeared dilated and excoriated; in some places a superficial loss of substance of the skin resulted. As the diagnosis may be looked upon as certain, this case could be cited as a fourth form that sycosis can assume.

The essential result of a comparison between these forms is, that they all tend to ulceration of the skin, and that the ulceration in the tuberculous form extends more deeply than in the other forms, where it remains more superficial.

It seems that the disease generally commences as a tubercle, and that the other forms arise secondarily; yet a primary appearance of the other forms cannot be denied. Probably the beginning of the disease, in many cases, is not noticed.

The consequent spreading of the disease often goes on continuously; in other cases it springs from one place to another; yet almost always in such a way that only small parts of the sound skin separate the earlier and later eruptions. Often an ulcer does not heal completely, but a small edge is left, from which the process takes a new start. The above case of circular eruption of knots around an ulcer on the nose affords an unusual instance of a regular way of spreading.

That sycosis is to be placed in the group of skin-diseases due to vegetable parasites is without doubt. One can be convinced of it by examining those hairs which are easily pulled out. Even to the naked eye the root of the hair appears thickened; in the hair-sheath one can, by aid of the microscope, find both mycelium and sporules, the latter partly separate and partly forming conglomerations like blackberries.

The formation of tubercles, however, and the ulceration, cannot be accounted for by the existence of the parasite in the epithelial tissue of the hair-follicle alone. The ulceration is too extensive to be the result of any irritation or pressure caused by the parasite filling up the hair-follicle. It is more reasonable to account for the formation of tubercles, and the consequent ulceration, by supposing that the corium too becomes infiltrated by the parasite, and causes the final change.

If we consider the wrinkled condition of the red patches as the result of a defective production of the cellules which constitute the rete Malpighii, this phenomenon points to a disintegration of the corium.

The phenomena characterizing the third form, viz., the formation of crusts, excoriation, ulceration, and the remaining depressions in the skin, are evidently the consequence of the parasite gradually growing from the surface inward and involving the

corium. This cannot be caused by the pressure from the parasite growing in the epidermis, because the affected strata soften successively and do not form a crust, as in favus, where the pressure of the crust is sufficient to produce an atrophy of the corium.

The obstinacy with which sycosis resists local treatment, which in the other parasitic skin-diseases is so effective, is also a proof of the deeper seat of the parasite in this disease.

Sycosis consequently differs from other skin-diseases due to vegetable parasites, in that the parasite in this disease not only keeps to the epidermoidal or epithelial tissues, but even involves the corium.

In the above-described case of a secondary nodular eruption, the circular distribution of the nodule round a central focus shows an analogy to tinea herpes, which may be of interest to those who believe in the unity of all skin-diseases due to vegetable parasites. I have not, however, seen any thing that could prove a transformation of this disease into herpes or favus, or the reverse, as has been lately mentioned in a treatise on skin-diseases by Dr. Purdon, of Belfast. Even in a case I have seen of sycosis scattered over the half of *par capillata capitis*, the local phenomena were too distinct to allow a mistake.

Treatment.—It has been advised to pull out the hairs on the affected spot and employ strong caustics, and even excision of the affected spot has been practised; but these methods are too much like Alexander's manner of loosing the Gordian knot to be of any practical value. One feels tempted to apply weaker caustics on the torpid ulcers, but the effect is generally very bad: especially is cauterization not advisable where the ulcer has thickened borders, or is surrounded by a specific patch; for, in such cases, it is liable to be followed by a rapid destruction of all the infiltrated parts, while otherwise, where no irritating treatment has been employed, and where the infiltration is superficial, such spots may resume the normal aspect of the skin.

Hebra recommends a paste of equal parts of sulphur, alcohol, and glycerine, and claims by this remedy to cure every case of sycosis in fourteen days. This treatment, however, by its irritating effect, often causes as much ill as good. The alcohol produces hyperæmia, and the glycerine tends to the same result by producing a higher local temperature of the skin. This remedy may thus become the means of hastening destruction when applied on spots which, because of their infiltration with the parasite, are predisposed to suffer this change. The application of dry sulphur has not this disadvantage; and, further to avoid it, we should not even syringe with hot water to remove the crusts, but lift them up with the point of a lancet; precipitated sulphur is then to be applied with a brush, three or four times a day. Later, one or two applications a day will be sufficient. After this treatment is continued two or three weeks the ulcers will present a clean, red base, and the final healing will go quickly on. It will certainly hasten the cure to remove the loose hairs; but, if the hairs be pulled out, they are not regenerated; if they be left untouched, a good many will remain, even on places where the ulceration is deep, and in the future help to cover the unsightly cicatrix.—*Cincinati Medical News.*

SECTION OF THE ABDOMEN FOR INTUSSUSCEPTION.

The rather frequent occurrence and very gloomy prognosis of intussusception induce us to give some extracts from recent British papers on its treatmen t by abdominal section. Three cases were reported before the Medico-Chirurgical Society of London.

The first was related by Mr. Howard Marsh, who performed the operation on an infant of seven months of age. The bowel projected two inches beyond the anus, and at the extremity of the protrusion the ileo-cæcal valve was visible, whilst in the abdomen a firm cylindrical tumor was felt extending in the course of the descending colon from the left of the umbilicus to the left iliac fossa. Insufflation and careful distention with lukewarm water having failed to reduce the intussusception, and the child being collapsed and frequently sick, Mr. Marsh operated. Sickness at once ceased. On the third day the bowels were relieved, and on the fourth the child was convalescent. In this case the intestine had been invaginated for thirteen days, but inflammation only set in twelve or fourteen hours before the operation, and Mr. Marsh expressed the opinion that when other means had failed the operation ought to be undertaken, not only in acute cases of twelve or eighteen hours' duration, but also in chronic ones in which there have been no symptoms of inflammation or strangulation.

The second case was that of an adult woman aged thirty-three. The length of the included bowel was at least eighteen inches. Not one bad symptom occurred, the temperature never rising above normal, and the wound healing by the first intention. In this case hemorrhage, so frequently regarded as a cardinal symptom, did not occur.

The third case was by Mr. Hutchinson, who also made some remarks on the details of the operation. It occurred in an infant aged six months. The intussusception involved the whole length of the colon, and the ileo-cæcal valve, introverted, constituted its extremity, and was easily felt by the finger in the anus. The symptoms had been the usual ones; they had lasted three days, and the usual method of treatment, perseveringly carried out, had failed. As the child was evidently about to sink, the operation was at once performed. Considerable difficulties were encountered in effecting the reduction of the intussuscepted part. Its neck was tied back in the loin by the meso-colon, and could not be brought into view, and although there were no adhesions, it was found quite impracticable to draw the intussuscepted bowel out of the sheath. At length it was discovered that although the upper end of the intussusception was fixed, its lower one, containing the sigmoid flexure of the colon, was quite loose.

This was readily brought out, and by gently pulling the sheath downward reduction was without difficulty effected. The appearance of the appendix vermiformis, just at the completion of the reduction, confirmed the opinion formed as to the introversion having begun at the cæcum. Considerable difficulty was encountered in replacing the intestines within the abdomen. They were accordingly punctured with a harelip needle in two or three places, and at the conclusion of the operation the infant was in an alarming collapse. It rallied, however, afterward, took the breast, and passed a motion. Death occurred about six hours after the operation, and the post-mortem showed evidences of recent extensive peritonitis.

In the discussion Dr. West drew attention to the distinction between intussusception in the adult and in the child, pointing out that in the latter the diagnosis is by no means difficult, and that one of the earliest signs is the passage of blood or bloody mucus. Even when the invaginated intestine could not be felt, but there was only indistinct fullness of the abdomen, he thought the diagnosis easy, as also did Dr. E. G. Barnes, in whose practice Mr. Marsh's case had occurred. Both agreed that when other means failed the operation ought to be resorted to. Mr. Thomas Smith argued that the length of the incision was not of much moment, since ovariotomy has taught us that mechanical interference with the peritoneum is not very dangerous. The danger rather lay in the retention of a clot, and all the viscera could be sponged with impunity. He thought it would often be necessary to puncture the intestine. Professor Timothy Holmes thought a long incision facilitated the return of the bowel, and remarked that the operation was usually performed only in hopeless cases. As to the hemorrhage, he observed that the occurrence of blood in a hernial sac shows that it may take place from strangulated intestine. Mr. George Pollock mentioned some experiments which he had made some years ago to determine the danger of over-distention by injection, and which showed that the peritoneum was very apt to crack when the bowel was only slightly distended; thus peritonitis might be set up. Dr. Harre advocated the injection of ice-cold water to reduce the congestion of the intussuscepted portion, and this could be aided by the application of ice to the abdomen. He thought the cold not only diminished the congestion of the vessels, but also the volume of air in the bowel.

THE TREATMENT OF HOOPING-COUGH BY THE IODIDE OF SILVER.

Dr. Robert Bell, Physician to the Glasgow Ophthalmic Institute, earnestly advocates (*Obstetrical Journal of Great Britain*, Dec., 1875) the use of iodide of silver in the treatment of hooping-cough. He says: "It has fallen to my lot to treat over 100 cases with this substance, and with uniform success. It is now more than three years since I read of its being useful in this disease, and since then I have used no other remedy, except occasionally ten or fifteen grains of bromide of potassium at bedtime, which helps very much in procuring a good night's rest. In almost every case in which iodide of silver has been used by me, the cough has lost the hoop by the end of four weeks, and been quite well in six weeks, and I may add the usual complications of the disease have been exceedingly rare. I have twice employed the remedy in families where six patients were ill at the same time, and in both of these instances the disease was practically cured by the end of the fourth week. I have several times treated more than one child in a family at the same time, and with the like excellent results. The superiority of iodide of silver over the bromide of ammonium is most marked. A curious coincidence occurred which demonstrated this. It happened that one of my professional friends was attending a family, the children of which were suffering from hooping-cough, and who resided in one of our west-end terraces, and at the same time I was attending another family in the said terrace, the children of which were also ill with this disease. My little patients were put upon one-eighth-of-a-grain doses of iodide of silver thrice a day, and this was all the medical treatment they required. My friend at this time was anxious to go away for a holiday, and he asked me to look after his patients during his absence. I found the children before mentioned in a state of great prostration, and most sadly afflicted with the cough; one of them, in fact, narrowly escaped with its life. These little patients were being treated by the bromide of ammonium, and were ordered to be kept in one room, and I did not feel justified in changing the treatment. I, however, ordered them to have a large pailful of boiling water brought into the room, into which about a tablespoonful of carbolic acid and glycerine was added, so that they might inhale the carbolic vapour. (This was two years ago.) It was three months before they were able to leave their nursery, and as many more before they were quite well; while my patients, who were about the same ages respectively as the other children, and who had been taking the iodide of silver, and had been going out every fine day, had not a trace of the disease remaining at the end of a month. I do not attempt to explain how the iodide acts in this affection, but it seems to me that hooping-cough is a disease of the gastric periphery of the pneumogastric nerve, and the silver acts as a sedative to this morbidly sensitive nerve, preventing reflex irritation being conveyed to the pulmonary ramifications of the nerve. I would urge all to give this preparation a fair and lengthy trial in the treatment of this disease, as I am convinced that in it we have a most valuable therapeutic agent."

ON THE USE OF NITRIC ACID AS A CAUSTIC IN UTERINE PRACTICE.

Dr. James Braithwaite, Lecturer on Midwifery and Diseases of Women and Children at the Leeds' School of Medicine, contributes a short paper on this subject to the *Obstetrical Journal of Great Britain* (Nov., 1875), in which he says, "Cases of

ulceration or erosion of the os uteri, with or without endocervicitis, are so common, and in hospital practice so numerous, that some more efficient and less troublesome caustic than nitrate of silver is urgently needed for their treatment. I have carefully and fully tried the action of most caustics (including carbolic acid), and found none to answer the purpose so well as nitric acid. The great fault of nitrate of silver is the fugitive nature of its action; its influence seldom extends beyond five or six days, even when rubbed upon and held in contact with the parts. It is more a stimulant than a caustic, as it produces no slough, and causes extreme turgescence of the capillaries immediately below the surface influenced, as evidenced by the occurrence of hemorrhage, often sufficient to obscure the parts before it has been removed from contact with them. At the second examination we often find the ulceration or erosion little if at all altered in appearance. This defect must be atoned for by the frequent reapplication of the remedy, necessitating each time the use of the speculum. I believe in this evil really lies the source of the opinion held by some eminent men, that these diseases require little or no local treatment, for our opinions are often unconsciously influenced by our wishes. Nitric acid, on the other hand, is a really efficient caustic, producing a slough, which is peculiarly firmly adherent, and which consequently necessitates a healthy effort by the subjacent parts for its separation. The only other caustic which produces a slough of the same character is nitrate of mercury. Nitric acid, moreover, requires no special preparation; does not spread like potassa c. calce, nor is its action so deep; it produces little or no pain and no hemorrhage. These advantages are trivial compared with the fact, that when once it has been properly applied, in many cases no further interference is necessary, and thus the frequent use of the speculum may be done away with. When the second examination is made, it should be after the lapse of a month, and it will then sometimes be found that there is a small spot requiring a fresh application of the acid, but often the sore appears to be quite healed or to be healing satisfactorily. The fresh mucous membrane which forms isn ot cicatricial in appearance, and when healing is going on satisfactorily, it has a sharply-defined edge, and, being of a pale rose colour, contrasts strongly with the bright red of the sore. The contraction is greater than follows the use of any other caustic; but this is a great advantage, for on account of the relaxed state of the tissues, it is just what is required to insure the permanence of the cure.

"The acid is best applied by means of a small and tightly rolled piece of cotton-wool, which is to be placed by an ordinary speculum forceps in contact with successive portions of the surface until the whole is covered with a white eschar. In a case of chronic endocervicitis, the acid should be applied to the interior of the open cervical canal, and if it is not open the case is not one suitable for the treatment. The contraction which accompanies healing is only to a healthy and natural degree. Provided the caustic has been used with ordinary prudence, I have never seen anything but good follow its use, and the ease with which a chronic case of cervical catarrh, with ulceration or erosion, may be cured by it is something marvellous. The bulk of my cases have been hospital out-patients, and the comfort the use of nitric acid has been in their treatment is very great, both in certainty of result and in saving my own time. Without local treatment very little can be done for these patients, for hygienic treatment is generally impossible, and medicinal treatment alone is useless. I shall not take up your space by details of cases, although I have copious notes of about forty. By trial of the remedy a proper estimate of its value will soon be formed.

"The use of nitric acid as a caustic is so-familiar to us all, especially in the treatment of some diseases of the rectum, that I had some hesitation in bringing the subject before you, and should not have done so but that I believe it is only used by two or three medical men engaged in the treatment of diseases of women. It is mentioned incidentally at the conclusion of a paper by Dr. Lombe Atthill, upon its application to the interior of the uterine cavity, that he uses it habitually in the diseases in question; and Dr. Roe of Dublin, in an analysis of 164 cases of uterine disease, relates a case of extensive ulceration in which he employed it. Mr. Robert Ellis has recommended the use of a saturated solution of nitrate of silver in nitric acid, and I believe Dr. Bennett has mentioned it also: but these writers are exceptions to the general rule. It is not mentioned by Tilt in his admirable work on uterine therapeutics, nor by any other of our standard authors upon diseases of women, all of whom recommend nitrate of silver, or mention its use as the usual practice."

Dr. Edward John Tilt, in an article in the *British Medical Journal* (Dec. 4, 1875), instead of advising nitric acid in all cases of cervical disease requiring a caustic, as Dr. Braithwaite seems to do, holds—1. That, in comparatively recent cases of endocervicitis, nitrate of silver, tincture of iodine, or carbolic acid suffices; 2. That chronic cases of endocervicitis had best be treated by acid nitre of mercury or nitric acid; 3. That hyperchronic endocervicitis with considerable cervical hypertrophy requires potassa fusa cum calce or some strong acid.

ULCERATED NIPPLES.

M. Legroux advises the following treatment: Spread with a camel-hair brush a layer of elastic collodion around the nipple, in a radius of an inch or more; a piece of gold-beater's skin should then be placed over the nipple and collodion, taking care to make a few holes with a pin over the part of the gold-beater's skin which covers the nipple, so as to allow the milk to ooze through. No collodion should be spread on the nipple itself, as some pain might thereby be occasioned. By the rapid evaporation of the ether the collodion dries up, and the gold-beater's skin adheres. The nipple is then more or less pressed

down by the latter, which in drying becomes tense. When the child is to be nursed, the end of the nipple should be wetted with a little water. The gold-beater's skin which covers it becomes soft and supple, allows the nipple to swell, and protects the ulcers and fissures from the strain of suction. The mother or wet-nurse thus suffers no pain, and the ulcers heal in a few days.—*Lancet*, Dec. 11, from *Annales de Gynécologie*, Nov., 1875.

PNEUMONIA.

Dr. Thomas Barr. in an interesting article on this disease (*Glasgow Medical Journal*, July, 1875), based on sixty-four cases in private practice, gives the following as the treatment he adopted:

1st. I have never employed general blood-letting, and, with the exception of the man who died from gangrene of the lung, I have never used even leeches. I think few of my readers will consider that in my cases of death the fatal result would have been prevented by depletion.

2d. I have in a few employed antimony in what might be called antiphlogistic doses. I generally use it for its expectorant and diaphoretic effects, and have very rarely used it at all with children under five years of age. I very often find patients suffering from the disease, with an irritable stomach, perspiring skin, and soft pulse. In strong adults, with very acute symptoms, and none of these contraindicting signs, I have used it in full doses with great advantage.

3d. Mercury. I have not used this medicine at all, unless as a simple aperient.

4th. Opium. I think I have seen more good done by this drug than by any other single remedy. It gave comfort to the patient, relieving pain and allaying cough.

5th. Diaphoretics and expectorants have been given with advantage. These classes of remedies also include small doses of opium and tartar emetic.

6th. External applications. At early stages I have found most comfort from poultices of linseed meal and mustard, frequently repeated; while blisters were reserved for the more chronic stages, when the condensation of lung seemed to linger longer than usual.

With respect to the treatment of the children in whom the most of my fatal cases occurrred; with the belief which I entertain of the real cause of danger, I have only adopted the restorative treatment. I have altogether eschewed bleeding, antimony, mercury, I have, of course, carefully confined the patient to a well-ventilated apartment (he requires all obtainable oxygen), with a comfortably warm temperature, given liquid diet, milk being the staple. If an infant at the breast, I limited its supply of breast-milk, and rather relieved its thirst by administration of cold barley-water; in the way of medicine, giving a diaphoretic mixture, small doses of ipecac, wine, sweet spirits of nitre, tincture of hyoscyamus, and solution of acetate of ammonia. Good has been done by allowing boiling water to evaporate near the patient. Repeated linseed-meal and mustard poultices to back and front of chest have often done great good. As night approaches, the little patient often becomes very restless, annoyed by a constant hacking cough. Then I have often found the greatest benefit from a dose of Dover's powder, preferring to give one single full dose at night to small ones frequently repeated. Of course, if the case is complicated, with pent-up secretions in the air-tubes, I have avoided the Dover's powder. When the child is feeble, great benefit is derived from liniments to the chest, while beef-tea and brandy were often absolutely necessary to uphold strength till the patient passed through the crisis of the disease.

He states that "When one reads the statistics of hospital writers respecting this disease, which have of late years been published, it requires not a little courage for a private practitioner to announce that he has had a mortality of one in six. But, supposing I selected my cases, and gave those only between the ages of six and fifty years, the ratio of deaths would be one in twenty-one, while of the forty-two cases between five and sixty-two, only two deaths took place."

MEDICATED ICE IN SCARLATINA.

In a short communication to the *Lancet* (Jan. 8, 1876), Mr. Edward Martin says: "Every practitioner has at times to face the difficulties of the scarlatinal throat in young children. It may sadly want topical medication; but how is he to apply it? Young children cannot gargle, and to attempt the brush or the spray often fills them with terror. In many cases neither sternness nor coaxing avails. If the doctor thinks it is his duty at all hazards not to leave the throat untouched, the child is subjected to a struggle and a fright which probably render the proceeding more productive of harm than good. If, on the other and more wiser side, he, when persuasion fails, goes no further, he is haunted by the feeling of not having done all that might have been done for the case. Most of us at times have been impaled on the horns of this dilemma. Yet these little ones in almost every case will greedily suck bits of ice, as I doubt not most of your readers can testify. This has long been my chief resource where I could not persuade the child to submit to the sulphurous acid spray. Lately I have been trying an ice formed of a frozen solution of the acid (or some other antiseptic), and I think my professional brethren will find it a valuable addition to their means. Though, of course, not so tasteless as pure ice, the flavour is so much lessened by the low temperature, and probably also through the parched tongue very little appreciating any flavour whatever, that I find scarcely any complaint on that score from the little sufferers; they generally take to it very readily. The process of making it is so simple that a few directions to any intelligent nurse will quite suffice; or in urban practice the chemist who dispenses the other prescriptions will undertake this one also. A large test-tube immersed in a mixture of pounded ice and salt is the only apparatus required, and in this the

solution is easily frozen. When quite solid, a momentary dip of the tube in hot water enables one to turn out the cylinder of ice as the cook turns out her mould of jelly. I have tried the three following formulæ, all of which answer, though I think I prefer the first:—

"1. Sulphurous acid, half a drachm; water, seven drachms and a half: mix and freeze.

"2. Chlorate of potass, one scruple; water, one ounce: dissolve and freeze.

"3. Solution of chlorinated soda, half a drachm; water one ounce: mix and freeze.

"However, the form is of secondary importance, and each practitioner can construct his own. Boracic acid, salicylic acid, or any other harmless antiseptic with not too much taste, would, doubtless, be as useful as those I have indicated. It is the idea of applying them in the shape of 'medicated ice' that I recommend to the profession, with the belief that it is of practical value."

THE CAUSES AND TREATMENT OF SLEEPLESSNESS.

Dr. J. Milner Fothergill thinks the experiments of Durham, Hammond, Donders, and others, have clearly shown the relation of sleep to cerebral anæmia. This condition of anæmia is produced by the co-operation of two factors, one a modification of the vascular system, the other a diminution of activity in the cerebral cells themselves. It is the combination of these two factors in the production of sleep that must ever be borne in mind in the treatment of each case of insomnia. Sleeplessness, among other causes, is due to a condition of high cerebral vascularity. There may be a local (cerebral) hyperæmia, a general vascular excitement, and a rise of temperature. Opium alone will not meet these complex states. In order to procure its hypnotic effects, it is necessary to combine it with a direct vascular depressant. In chloral-hydrate we have a drug which acts upon the nervous system, lessens the heart's action, and lowers the temperature. But the very qualities which may here render it so valuable, constitute the objections to its use in other forms of insomnia. A different form of sleeplessness is found where patients have cerebral anæmia. Here there is sleepiness felt during the day, especially when in the upright position, but at night when the body is recumbent a state of wakefulness is instituted. Such a condition is most pronounced in melancholics. Bromide of potassium and chloral in such cases, however effective in procuring sleep, are injurious, from their tendency to aggravate the condition of anæmia. Authorities advocate, instead, alcohol and opium, accompanied by a generous diet, and by the exhibition of iron and quinine in fair quantities. There is a form of passive cerebral hyperæmia, in which insomnia is present, due to partial vaso-motor paralysis of the intracranial blood-vessels, usually associated with mental overwork. One constituent factor of the treatment must be to lessen this cerebral activity by some suitable agent. Bromide of potassium, of all remedies, is the most efficient, and with digitalis may be advantageously combined. In such cases it is the action of digitalis upon the peripheral vessels rather than its effect upon the heart which renders it so valuable here. Dr. Fothergill, after reviewing the different forms of sleeplessness, mentions some of the chief forms of hypnotics in common use. Opium is indicated in conditions of insomnia, which originate in pain. Hyoscyamus may be resorted to in cases where opium or morphia disagree, as in chronic renal disease. Hydrate of chloral is useful in conditions of vascular excitement, either alone or in combination with opium. In cases of sleeplessness, where there is continuous high blood-pressure, or where there is distinct pyrexia, chloral-hydrate is the hypnotic *par excellence*. It is to be avoided, however, where inability to sleep is due to worry and to brain exhaustion. The utility of bromide of potassium is shown where cerebral activity is kept up by distant peripheral irritation, especially where that irritation lies in the pelvic viscera.—*The Practitioner*, February, 1876.

ON PUERPERAL MANIA.

In a lecture on this subject (*La France Médicale*, July 28, 1875), Dr. Peter states that he considers puerperal mania to be due to a determination of the blood to the head; the blood, instead of going to the breasts to form milk, goes to the head to produce a pathological cerebral hyperæmia. Why all suckling women do not have mania is purely a personal matter, depending upon the quality and condition of the brain, whether bad or laboring under mental distress. All functional work demands an afflux of blood, and this functional hyperæmia of an organ may at any time become a pathological hyperæmia. An immoderately active brain is immoderately hyperæmic, which predisposes to a pathological condition. Puerperal mania is, as a rule, in the hypochondriacal form, from the mental occupations of a pregnant woman being of a sad and melancholy turn.

He relates a case lately occurring in his clinic, as proof of his theory. The woman had had five children previously, without a bad symptom. The present pregnancy was an adulterous one. She was of an excitable temperament, and keenly felt her position. During the attack the temperature was normal; but the pulse was very irregular—every two, three, or four beats it intermitted unequally.

The irregularity he attributes to defective innervation of the heart. The nerves which supply this organ come from two sources—the pneumogastric and the cervical portion of the large sympathetic. The cardiac nerves spring from the bulb (medulla oblongata) and the cervical portion of the spinal cord; the cardiac disorder and the cerebral had, therefore, one and the same origin, viz., a cerebral and bulbous hyperæmia.

The treatment is to reduce the cerebral and spinal congestion by the application of leeches or cupping to the nape of the neck. The latter method was adopted in the case, with the effect at once of relieving the headache and the irregularity

of the pulse. At the same time and for Sedlitz was given to purge the bowels. On the third day a dose of chloral thirty grains was given at bedtime, as the sleeplessness had not disappeared. Its effect was immediate.

All attacks of puerperal mania come to an alight from the mind not being diverted from itself by the ordinary passing excitements of daily life. It dwells too much on its condition which increases and intensifies the functional hyperæmia.—*London Med. Record.*

DIARRHŒA IN CHILDREN

(*Boston Medical and Surgical Journal*, February 17, 1876)

Prof. Demme attributes the diarrhœa of very young infants brought by exhaustion at the breast to the condition of the mother's milk. In several cases he found this to be falsely acid and with an abnormally large amount of fat.

The remedy for such diarrhœas lies in furnishing a proper substitute for the mother's milk. All substances containing starch must be prohibited, and Liebig's and Nestle's food, inasmuch as at this early age the naturally important powers of digesting are still further reduced by the intestinal troubles and the accompanying disturbances in the functions of the pancreas and parotid glands.

The author recommends as a food for such cases the white of an egg to less to drink first in two ounces of water, previously boiled, with the addition of condensed milk three to five drachms, for the twenty-four hours. The quantity may be gradually increased up to the end of the fourth week, when two or three times the above amount may be given. The milk of other animals or cream should never be used owing to their richness in fat. Also the use of metallic astringents in these cases is objected to.

A NEW DISINFECTANT

The *Australian Medical Journal* for July 1876 contains the report of the July meeting of the Medical Society of Victoria. Dr. John Day, of Geelong, read a paper, with experiments, in which he stated that he had long been endeavoring to find some agreeable as well as efficacious means of purifying and disinfecting the hands after making post-mortem examinations, and for other disinfecting purposes; especially one suitable for nurses to attend upon sick persons suffering from infectious diseases. In all his experiments he had always looked to oxygen in some form or another as the disinfecting agent. Ordinary oxygen is a weak agent in this way, and in the two active forms of ozone and peroxide of hydrogen it acquires a somewhat disagreeable odor. After trying various ways of disguising this, he at last succeeded as follows. On examining some of Bilmeyer's mineral waters at the request of a lady friend, he found that it gave the reactions of peroxide of hydrogen pretty strongly. He thought it might possibly destroy the smell of the latter substance, and he found that it did so. He therefore mixed ethereal solution of peroxide of hydrogen, the so-called ozonic ether, with millet vinegar in the proportion of a drachm to the ounce, and found that the combination was a most agreeable as well as highly efficacious disinfectant. Dr. Day states "that there are two marked advantages to be derived from the combination of vinegar with the peroxide of hydrogen. In the first place vinegar, in common with most acids, is capable of preserving peroxide of hydrogen, and in the second place it is one of the most powerful disinfecting agents being used with soap, the free acid of which, under ordinary circumstances, would decompose it; but when it is combined with vinegar no appreciable change is produced. He recommends that after attending persons with puerperal fever, or other infectious diseases, the hands should first be well washed and dried, and that this disinfectant should be used afterwards, being well rubbed over the skin. Lime juice may be thought of any other perfume.—*London Medical Record.*

TREATMENT OF PSORIASIS, TINEA FAVOSA, ETC.

By Dr. Henry Mauriac.

The results of treatment for parasitic affections of disease are often unsatisfactory. Dr. M. Mauriac has found a substance relatively harmless, possessing more than any yet employed, curative properties.

The first thing to do in the scaly forms of disease is to get rid of the scales. In order to do this, wash the part affected with soap and water, and when the skin is dry and red, it will be desirable to prescribe a few simple poultices. Bread or linseed meal is about the preparation to be applied twice daily for twenty-four hours. In the form of the part petroleum, one to two ounces, and a few drops of oil of lavender to any form a liniment, or a pint of petroleum to a pint of lard with twenty drops of oil of lavender. The vessel in which mixtures these may be stood in a basin of boiling water, occasionally renewed, stirring with a wooden spatula, and the whole is thoroughly blended.

This ointment is to be applied gently but thoroughly, once or if it be practicable, twice daily. A soft brush is a very good implement to use, and the ointment when about to be applied may be moderately warmed beforehand by standing the pot in gallipot which contains it in hot water. Judgment must be used in apportioning the strength of the ointment and the amount of the application to the state of the parts and the irritability of the subject. After the application a piece of lint with a bandage may be applied, as it not unfrequently happens very well—and, after all, a soft linen sheet may.

Before the first application of the petroleum ointment the part must be very gently but gently washed with soap and water. The ointment is then to be reapplied as before. Every day or two the part must be washed and then further used. Should the first application of petroleum not be followed by further use, pleasant lotion a few soda lye, and, after being well washed, dry, and then to water containing a little carbolic acid.

The last instance of porrigo which I had to deal with, was in a cutler's daughter. Her case was rather a distressing one, with many sores, the hair had mostly disappeared, and there were vermin as well. The very first application proved advantageous, and the patient did well in every respect, except as to regaining her hair afterward. The family have removed, and I cannot speak of the young woman's present state, but I have no reason to doubt but that it is satisfactory.

In a recent case of trychopyton tonsurans in a youth of eighteen, a large patch of hair, producing great disfigurement, was absent. I must here observe that I had begun with pencilling a weak alcoholic solution of corrosive sublimate over the parts. I then had recourse to the petroleum ointment and black soap. The case, after some continuance of treatment, has done extremely well. A vigorous growth of hair now covers the previously denuded surface. A preceding case of trychophyton occurred in a pretty young Jewess. A naked patch rather larger than a crown piece, subsisted at the very vertex. The young lady has since married, and the vertex, when I saw her last, bears no trace of having ever been wanting in respect of its hairy covering.

I wish to add that the petroleum ointment, with black soap, is an excellent remedy in itch, removing it with ease and safety. It is a capital remedy for lice, destroying them on the pubis, in the axilla, or on the head. In two or three instances where these hideous vermin had extended over the whole surface, the petroleum ointment with black soap and the warm bath, employed twice daily, removed them with magical celerity. In insane persons, whereon vermin often house, petroleum ointment and soap proves most useful. So far as I have had an opportunity of trying it, I find the petroleum alike servicable in the mange of dogs, swine, and horses, destroying the minute parasites along with the cutaneous affections which they engender.—*Practitioner, Oct.*, 1875, *p.* 261

THE CANADA MEDICAL RECORD

A Monthly Journal of Medicine and Surgery.

EDITOR:

FRANCIS W. CAMPBELL, M.A., M.D. L.R.C.P., LOND

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MONTREAL, MAY, 1876.

THE WESTERN HOSPITAL, MONTREAL.

In our March number we informed our readers that a very large portion of the land which was purchased by the Corporation of the Western Hospital had been paid for, and was about to be completely cleared by placing the mortgage for the balance due, on the small remaining portion of the land, taking as additional security the guarantee of three of the officers of the Corporation. This has been done by Messrs. William Workman, Hugh McLennan and James Coristine becoming security for its payment. We believe that the portion of the land which is now held by the Corporation, completely free of encumbrance, consists of about 50,000 square feet. Upon a portion of this ground Major Mills is, as we write, engaged in excavating the foundation for the building which he is about to erect, and which will form one of a series which will be erected as they seem to be demanded. A general plan has been prepared by Messrs. Hutchison & Steele, architects, and according to this plan it is intended to put up subsequent buildings. The one which will be known as Major Mills' Building, is also from plans by the same architects, but differs somewhat from what subsequent buildings are intended to be. The Mills' Building will contain a sub-basement for heating, store rooms, coal, &c.; a ground floor some three and a-half feet above the level of Dorchester Street, which will be occupied by the Staff necessary for the management of the institution; two storeys, giving four wards 14 feet high, and the third storey will be formed by the Mansard roof, giving two wards 13 feet high. On each flat there is a nurses' room, with baths, water closets, urinals, &c., while provision is made for three private wards. The building will be 46 feet front, flanked by two towers, and 66 feet in depth. Accommodation will be given for 52 beds—or 55 beds, including the three private wards. In the ground floor, we may mention provision is made for an Out-door or Dispensary department. The building will be pushed forward rapidly. It is anticipated that the corner stone will be laid about the 1st of June, and that it will be ready for the reception of patients early next summer. We may mention that the ground owned by the Corporation of the Western Hospital consists of nearly two acres just at the Western portion of the City limits, (about a half of the property being outside the limits), and is beautifully situated, either as regards drainage, ventilation or view.

THE COLLEGE OF PHYSICIANS AND SURGEONS OF LOWER CANADA.

We have already, in previous numbers, expressed the opinion that in deference to the views of the profession, changes of a very radical character were required in the Act of Incorporation of the College of Physicians and Surgeons of Lower Canada, and that we believed there was within that body gover-

nors not only alive to the exigencies of the hour but competent to deal with the matter in a thoroughly satisfactory manner. We felt that improvements should emanate from the College itself, and that the attempt at Medical Legislation which was commenced last fall in Quebec, by what we may term outsiders, should be crushed out by the weight of public opinion. We feel and we are glad to know that in this matter we re-echo the sentiments of many of the Governors, that action must be taken at the meeting of the College on the 10th of May, so as to place matters in such a forward state, that in the October meeting at Quebec they may be finally arranged for presentation to Parliament at its Session in November or December. In such matters while many have a good deal to say, few seem willing to take the preliminaries necessary to place the matter in proper shape for progressive action. In the present instance, however, we are glad that in the person of Dr. R. Palmer Howard such a one has been found; and from a combination of circumstances, especially his connection with the late proposed Dominion Bill, no one more competent to deal with the matter could have assumed the position. Dr. Howard has drafted a number of amendments to the present Act, which he proposes to submit to the meeting of the Governors of the College this month, and we think that they are of a character to commend themselves to the Board. We certainly most heartily endorse them, and believe that their adoption will satisfy the general profession, which has been clamorous for several years for some such change. We publish them in detail in another column. They were brought before the Medico-Chirurgical Society of Montreal at a very full meeting on the 5th of May and considered clause by clause, and may in general terms be described as follows: It is intended to leave the constitution of the College as at present; the executive as heretofore shall be the Board of Governors and these shall be elected every three years as at present by the members of the College. The rights which holders of University degrees at present have of demanding their license without examination is to be done away with, and every one presenting himself for his license will have to be examined by the Board of Examiners; but no will be examined who is not the holder of a degree or diploma from some Canadian University or incorporated School of Medicine. The Board of Examiners is to be independent of the Board of Governors, but will be named by them, and is to consist of nine members, five of French nationality, and four of English nationality, and of this number four shall be selected to represent school interests, that is, one from the University of Laval, one from McGill University, one from Victoria University and one from the University of Bishop's College; this latter clause is a very fair one indeed. Schools, by consenting to do away with the rights they at present possess, are giving up a great deal. And it is but right that at least one examiner from each school should be on the Board to see that full justice is done. Besides their presence assures the fact that the examinations will be what they should be. These examiners are to hold their appointments for three years, and are to be paid for their services. In the matter of Preliminary or General and Classical examination, the Universities are to give up their present right of conducting such examinations themselves. And such examinations are to be conducted by specially appointed examiners, two in Quebec and two in Montreal, one in each place of French and one of English origin. These are the main facts of Dr. Howard's proposed amendments, and we may state that they have been unanimously endorsed by all the teaching bodies in Montreal.

The Medico-Chirurgical Society devoted two hours and a-half to their discussion, and although a couple of trivial alterations to the original draft were made, the principle of the measure was unanimously endorsed by the Society. With this sign of activity from the constituted Medical authorities of the Province, we trust we have heard the last of that terrible *Medico-Legal* Bill, which was introduced by the Hon. Mr. Chapleau into the last session of the Quebec Legislature.

MONTREAL GENERAL HOSPITAL.

This Institution is at present undergoing some alterations in the Reid Wing, which will very considerably improve its internal appearance. Formerly on each flat, (of which there are three) there were two small and really very badly ventilated and ill-lighted wards, with one fair-sized ward. All these are now thrown into one, making a good-sized ward, well lighted, and having as good ventilation as can be had. The Small-Pox Wing has been thoroughly disinfected, and is now used as two large general wards. Its transmogrification was a few weeks ago inaugurated by an evening concert in one of the Wards. The Medical Staff have recommended the appointment of an Ophthalmic Surgeon, and we believe that the candidates will be Dr. Buller and Dr. Proudfoot. The out-door department, with a separate staff of Physicians

—.which was established some eighteen months ago—is working well and giving much satisfaction.

THE COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.

The recent meeting of the Examining Board of this body at Toronto, early in April, cannot, if we are to judge from our two Toronto contemporaries—and by the *Globe*—be called a success. The programme was not adhered to—the reports concerning the written examinations in some instances not being forthcoming till long after the required time—thus compelling the oral examinations to be put over, and putting the students to considerable additional expense. This state of things is bad enough, but, when it is openly stated that the cause of this delay was the over-indulgence of some of the examiners, the accusation is one of a very serious character. A Mr. King, under his own signature, in the *Globe*, brings this charge against them, and although Dr. Campbell of Toronto, one of the Board—its Chairman, if we mistake not—denies the accusation, the information which reaches us from several independent sources forces us to believe that the charge is not devoid of foundation. For instance it is asserted that one of the examiners, while in a mood more jovial than correct, passing through a crowd of students waiting in one of the halls pulled out some specimens from his pocket, and, handing them to a student near him, asked him to describe them, saying at the same time he intended giving oral examinations on these specimens, and would like them to be well up on them. Information also reaches us that the same examiner, in the same condition, entered the Billiard Room of the Rossin House, and attempted to examine some students who had congregated there in the same irregular manner. With such specific charges as these, made openly, we have no hesitation in saying that the College of Physicians and Surgeons of Ontario will be wanting in the performance of their duty if they do not sift this matter to the bottom.

THE CORPORATION AND THE "PUBLIC JOURNAL OF HEALTH."

We have always thought that modesty was an essential characteristic of an Editor—but a somewhat severe shock was given to this idea on our reading in the public prints that, on the 3rd of May, the Editor of the "Public Health Journal" appeared before the Sub-Committee of the Board of Health and stated his willingness to *continue* to publish the Mortuary Statistics of the City of Montreal if the Corporation would give him a bonus of three hundred dollars a year. What a cool proposition; the matter is, in the eyes of the Editor, of such value to the citizens that they should pay for its publication. Now we look at it in an entirely different light. If the matter is valuable and interesting to the public it is good material for his journal—and the *price HE* should pay the Corporation for the privilege of publishing it should be in proportion to the value which he believes it to be to his subscribers. That is turning the tables entirely we admit, and sorely at variance with the views of the Editor of the "Journal of Public Health." But we are an old hand at the pen, while our confrère has hardly got settled into harness, and this may possibly account for the different light in which we view these matters. We candidly think the proposition of our editorial friend so absurd that we regret to hear that several members of the Committee actually seemed to favor it. If our sanitary friends in the Council have three hundred dollars to spare we suggest they divide it out in the form of premiums to zealous sanitary policeman, and leave the *Journal of Health* to pay its publishing expenses from its subscriptions and advertisements.

McGILL COLLEGE—SUMMER COURSE.

McGill College has organized a Summer Course, which commences this month, and we have no doubt it will prove interesting to students who, being in the City, can attend it. Dr. Ross gives lectures on Diagnosis—Dr. Roddick on Minor Surgery—Dr. Buller on Ophthalmic diseases—Dr. Girdwood on Practical Chemistry—Dr. Osler on Practical Histology and Pathology—Dr. Gardner is down for a Course on Electro-therapeutics and the Practical Application of Electricity, but this portion of the Course cannot be given this session, at least by Dr. Gardner, as he is at present in Europe, and will be till the fall. Next summer, when given, we believe it will be a most interesting and valuable addition to the Summer Course.

Amendments to the Act of Incorporation of the College of Physicians and Surgeons, L. C., to be proposed at the May meeting, by Dr. R. Palmer Howard.

1st.—That the composition and mode of election of the Provincial Medical Board at present authorized by the Act of Incorporation of the College of Physicians and Surgeons of the Province of Quebec, be not altered.

2nd. That section VII. of the Act of Incorporation of the College of Physicians and Surgeons, cap. xxvi, 10th and 11th Vict. be expunged.

3rd. That Section V. be thus amended :

The said Board of Governors shall be, and are hereby constituted "The Provincial Medical Board," in which capacity they shall meet *to receive the reports of the "examiners" hereinafter mentioned, and to perform the several duties devolving upon them under this Act as the Board of Governors of the College,* not less than *once* in each year, at such time and place as to them shall be deemed most fit, and on which occasions, seven shall be a quorum, for the transaction of business.

4th. That at the first regular meeting, of the said Board, after the passing of this act there "shall be appointed by the Provincial Medical Board," for three years, subject to the approval of the Board, nine examiners, not Governors of the College, five of whom shall be of French and four of English origin, by whom all Candidates, for a license to practice medicine, surgery, and midwifery in this Province shall be examined, in accordance with the by-laws, rules and regulations of the Provincial Medical Board." The examination to be written and oral, and as far as possible practical.

Of the above examiners, one shall be chosen from each of the four medical schools, now existing in the Province, and the remaining five shall be chosen from amongst the registered Medical practitioners not connected with any of the Medical schools.

5th. That at the first regular meeting of said Board after the passing of this act there shall be appointed by the Provincial Medical Board for three years (subject to the approval of the Board) three persons actually engaged in the work of general education, to examine all persons about to begin the study of medicine, surgery and midwifery, on the subjects of general education hereinafter mentioned as belonging to the preliminary qualification of medical students, viz.: One examiner of French nationality resident in the city of Quebec, and one of French and one of English nationality resident in the city of Montreal. The subjects of the preliminary qualification to be English, French, Latin, geography, arithmetic, algebra, geometry and natural philosophy, and the candidate to present a certificate of good moral character.

6th. That every person wishing to obtain a license to practice medicine, surgery and midwifery in this Province, and to be registered under this act, and who shall not have obtained a license to practice medicine, surgery and midwifery in any of the provinces of the Dominion of Canada before the expiration of six months after the passing of this act, shall, *before being entitled to such license* and to *registration* in this Province, *possess a degree or diploma* from a Canadian university or college, or incorporated medical school, approved by the Provincial Board, *and pass an examination* as to his knowledge and skill for the efficient practice of medicine, surgery and midwifery, *before the examiners appointed by this Board;* and upon passing the examination required, and proving to the satisfaction of the examiners that he has complied with the rules and regulations made by the Provincial Board, and on payment of such fees as the Board may by general by-law establish, such person shall be entitled to a license to practice medicine, surgery and midwifery in this province, and to be registered, and, in virtue of such registration, to practice medicine, surgery and midwifery in the Province of Quebec. Provided, always, that when and as soon as it shall appear that there has been established a central examining board, similar to that constituted by this act, or an institution duly recognized by the Legislature of any of the Provinces forming the Dominion of Canada, other than Quebec, as the sole examining body for the purpose of granting certificates of qualification, and wherein the curriculum shall be equal to that established in Quebec, and the holder of such certificate shall upon due proof be entitled to registration by the Provincial Medical Board of Quebec, if the

same privilege be accorded by such examining board or institution to those holding certificates in Quebec. Provided, also, that it shall be *optional* for the Provincial Medical Board to admit to registration all such persons as are duly registered in the medical register of Great Britain, or are otherwise authorized to practice medicine, surgery and midwifery in the United Kingdom of Great Britain and Ireland, upon such terms as the Provincial Medical Board may deem expedient.

That the "Provincial Medical Board:—

(1). Shall from time to time, as occasion may require, make rules and regulations for the guidance of the "Examiners," and may prescribe the subjects and mode of the examinations, the time and place of holding the same, and generally may make all such rules and regulations in respect of such examinations not contrary to the provisions of this act, as they make them expedient and necessary,

(2). It shall regulate the study of Medicine, Surgery and Midwifery by making rules with regard to the preliminary qualifications, duration of study, and curriculum of studies to be followed by the students.

Provided always that such rules shall not be contrary to the provisions of this act,—and that any change in the curriculum of studies fixed by the Board shall not come into effect until one year after such change is made.

8th. That the Provincial Medical Board shall have the power to fix by law the salary or fees to be paid to the "Officers," and to the "Examiners" appointed by the said Board; as well, also, the fees to be paid by all candidates entering on the study of medicine, as also by all candidates for the license to practice medicine, surgery and midwifery, as well as the fee to be paid for registration; and the said Board may dispose of all fees received in whatever manner they may think most conducive to the interests of the College.

[These amendments were considered by the Board of Governors of the College at their Semi-Annual meeting, held in Montreal, on the 10th of May. We have only time to say that in the main all the amendments received the endorsation of the Board. It was decided, however, that that portion of the 4th clause should be altered, so as not to specify the numbers of examiners, as regards nationality—simply that there shall be nine examiners. It was likewise decided not to exclude Governors of the College from being named examiners—but, if such appointment should be accepted by them, they would be required to resign their Governorship; a committee was named to draft a bill founded on the above amendments, and to be ready to report at the October meeting of the Governors.—*Editor Record.*]

PERSONAL.

Dr. R. A. Kennedy, of Montreal, who has passed the winter at Canon City, Colorado returned to Montreal on the 5th of May. His friends will be glad to know that his health has greatly improved, and that there is every reason to hope that his restoration is complete. We hope shortly to publish from his pen, some interesting papers on Colorado, as a resort for invalids.

Dr. Jas. A. Sewell, of Quebec, has been unanimously re-eelcted Dean of the Medical Faculty of Laval University.

Dr. G. W. Campbell, Dean of the Medical Faculty of McGill College, proposes, we learn, to return to Canada from Europe the end of May.

Dr. Clinton J. Morse, M.D., Univ. Edin., 1862, and lately of Amherst, N.S., has commenced practice in Montreal, at 13 Bleury Street.

Dr. Molson and Dr. R. L. MacDonnell Jr. have, we are informed, been appointed Assistant Demonstrators of Anatomy in McGill College. Both these gentlemen are at present in Europe.

Dr. Buller, of Montreal, is to deliver a Course of Lectures during the Summer on Ophthalmia, forming part of the summer course which is to be given for the first time this summer by the Medical Faculty of McGill College.

Dr. J. P. Lynn is Medical officer of Health for Ottawa City.

Dr. William Gardner, of Montreal, sailed from New York on the 22nd of April, per S.S. England of the National Line, for Europe, where he intends to pass about five months.

Dr. Blackader (M.D., of McGill College), and Dr. W. F. Scott, passed their Primary examination before the Royal College of Surgeons of England, in the first week of April.

BIRTH.

At Dunham Flats, Que., on the 25th April, the wife of A. D. Stevens, M.A., M.D., of a son.

In Waddington, N. Y., U. S., on the 1st May, the wife of John Morrison M.A., M.D., of a son.

DIED.

At Sunnyside, Ayr, Scotland, on the 28th April, James Mason, M.D., formerly of St. Annes, Que.

Original Communications.

THE PHYSIOLOGY OF CONVULSIONS.

By William Fuller, M.D., C.M., Professor of Anatomy, University of Bishops College. Read before the Medico-Chirurgical Society of Montreal, May 1876.

Gentlemen,—There are few circumstances more trying to the physician than the management of a case of convulsions, especially to one who has just commenced his career of practice, armed as he may be by knowledge acquired from lectures and books but yet doubtful, through want of experience, of the practical application of the means which he has been taught to use. Regarding the suddenness of the call, the great anxiety of the friends, the frightful aspect of the patient and the apparent necessity of immediate action all conspire to disturb that equanimity of mind necessary for correct observation and sound judgment.

In studying the physiology of convulsions I have come to the conclusion that they result from an anæmic state of the nervous centres, produced by spasm of the vessels through irritation of the sympathetic nerves from local disturbance in some part of the organism, or from an insufficiency of blood in the vessels, as in case of excessive hemorrhage, and perhaps from an altered state of that fluid from the poison of the eruptive fevers or strychnine &c.

A spasm is either local or general; in the organs of the mind, producing irregular trains of thought, hysteric emotion, depraved irresistible appetites, or, unconciousness; in the spinal cord producing general or local pains or spasms in the body; in the vascular system of the body producing the general chill which precedes a fever, or local anæmia as in cold hands and feet, and what nervous patients describe as dead fingers. These and many other conditions have their origin in spasms of the arterial system, shutting off the supply of blood to nervous centers or to parts of the body; they are all similar in nature and call for similar remedies. They sometimes replace each other and are beyond the control of the patients will. The irregular circulation in the organs of the mind produced from excentric causes is a subject well worthy the study of the theologian, the moralist, and members of the legal profession, whose mental philosophy studied from consciousness, seldom recognizes the groundwork of that science in physiology; hence it is that with the one the wrongdoer is wicked, and the other condemns him as a criminal. How few recognize that great essential "a sound mind in a sound body."

This is the explanation of the different views taken of cases in our criminal courts by the Bench and the doctors. Let us continue, at the risk of being the subjects of derision, to testify where our conscience dictates, in the interests of mercy, and let the same understanding make us charitable toward all men. We are, however, seldom called to treat these cases until some unfortunate is ripe for the lunatic asylum or on trial for his life. We will now consider the nature and treatment of spasms affecting the bodily organs. The phenomenon of a chill is that a local or general irritation of the sympathetic causes spasm of the arterial coats and unstriped muscular fibres generally, shutting of the supply of blood to the skin, producing a sensation of coldness and cutis anecrina. The heart beats violently to overcome the obstruction, paralysis soon follows the expenditure of nervous force, and the capillaries become distended with an overflow of blood which is the phenomenon of simple fever. Nature's object in this is to relieve a local congestion by withdrawing the blood to other parts of the body and thus equalizing the circulation. All parts of the body now start from equal conditions to tone up their vessels, if this process obtains equally throughout the body there is a continuous recovery, but if, on the other hand, the part primarily affected fails to keep pace with the rest of the body, after a certain time it is necessary to repeat the process, which probably is the cause of the periodicity of certain diseases, as in termittent fever, periodical pains, or periodical drunkenness or insanity of any kind. In low fevers the chills are slight owing to the depressing or paralyzing influence of the poison, hence the dusky appearance of the skin, its sluggish circulation and the bluish and long-continued congestion remaining after the application of mustard plasters in typhoid fever, &c. The same condition in the nervous centres produces the sluggish comprehension and other nervous symptoms observed in fevers. Convulsions frequently follow or take the place of chills especially in children, a fact which proves their close relationship. Now what are the facts from which we can form a just conception of the nature of convulsions, and can we draw a comparison between them and chills? I think we can prove them to be identical. Let us observe closely the phenomenon of a convulsion: There is variableness of the temper, fretfulness, excitement, frequently the child sings just before it is attacked, and the joyous mother is suddenly transported into grief by the unexpected change. The face is observed to be alternately pale and flushed; or, irregular patches are seen as travelling spots of redness. The pupils alternately contract and dilate. There are frequent starts out of a restless

sleep from dreams, rolling of the eyeball; twitches in different parts of the body precede the general convulsion, which is unequally distributed, and generally follows a successive course over the body, repeated in the same order in each subsequent convulsion, sometimes affecting only one side, which side is generally semi-paralyzed after the attack ceases. Each convulsion is followed by a state of congestion of the face, and more or less profound unconsciousness. Now what is the signification of these phenomena? Doubtless they are the result of irregular circulation, produced, as in chills, by irritation of the sympathetic and irregular contractions of the vessels until the maximum contraction is reached in the convulsion, which is followed by dilatation of all the vessels and congestion of the nerve centres, which is the cause of the unconsciousness and of the cessation of the spasmodic action. Excessive hemorrhage is productive of convulsions, owing to a deficiency of blood supply; so also fainting fits are frequently accompanied by or pass into convulsive movements. The object here to be attained by nature is, by the temporary spasm of the vessels leading to the nervous system, to paralyze those vessels in order that, while the body which may remain prostrate without a fatal result, those parts which are necessary to life may be more abundantly supplied until the vital fluid is replenished. Further, with a view of testing these ideas, I have observed in the slaughter-house that spasms occurred in the animals only when they were nearly bled out; and I further caused two calves, which I selected as nearly equal as possible, one to be suspended by the legs and the other laid on the floor with its head elevated; they were both bled as nearly equal as possible, and, as I anticipated, the one on the floor was convulsed much sooner and much more than the one suspended—showing that while anæmia favors, congestion of the brain opposes, general convulsive movements. Again, compression of the veins of the neck is said to control a convulsion. However, I have not met with success, through inefficient performance, as it is scarcely practicable in the presence of friends. The exciting stage of anæsthetics appears to be of the nature of a convulsion, and the second stage resembles the congestion subsequent to it. This is probably the action of these drugs on the body and their use in convulsions, by keeping the cerebral vessels in a state of paralysis. If these conceptions of the nature of convulsions are correct, it follows that beside removing the cause, if possible, they may be controlled by such remedies as either produce tone in the primary part at fault by very *small* and *repeated* doses of some medicine acting *directly* on that part, or by a large dose of some medicine sufficient to cause paralysis of the whole vascular system. Unfortunately it is difficult to make a correct diagnosis of the cause, or in the present state of our knowledge of Materia Medica exactly to adapt a medicine to its use in this manner. Again, we are seldom called until the spasms are developed, consequently we are obliged to adopt those measures which give relief speedily to the urgent symptoms. The latter course is one which we may adopt with almost certain success, and as is seen in a study of the disease, it is not contrary to the efforts of nature herself; hence the use of anodynes and anæsthetics is appropriate in doses sufficiently large to produce paralysis of the cerebral vessels and congestion. Of the use of chloroform, chloral, bromide of potassium, warm baths, bleeding, &c., we are all acquainted. Perhaps nitrate of amyl might be useful, on the same principle. I have no experience, but it appears to produce cerebral congestion very quickly; I think it deserves a trial. Of all remedies I am most in favor of opium; and so much confidence have I in this remedy, which I have used for six years, that I rarely think of anything but my hypodermic syringe when I am called to a case of convulsions. The few unsuccessful cases which I have had, have not shaken my confidence in this remedy. I introduce the hypodermic syringe loaded with three or four doses and slowly inject at intervals of twenty minutes on ½ hour until the pupils begin to contract. As soon as I find the pupil contracted I go home, confident that the spasms have ceased, at least until the influence of the medicine has passed. I have adopted this treatment in infants two or three months old with perfect success and without any mishap. If infants are more susceptible to opiates they require less, and of course any method of treatment is not responsible for a want of caution. I have observed that if the pupils failed to contract after a reasonable dose of the opiates, the case is unfavorable, and in six cases which occurred to me all died either from recurring convulsions, or of meningitis; and here it may be objected that the opiate is contraindicated in, or might produce inflammation of the brain or meninges; but I am of a different opinion, and that opium is no more contraindicated than any of the above named remedies, except perhaps the warm bath and bleeding, since the others produce the same result as the opium or the fit itself, viz: congestion of the cerebral vessels. I think for certain reasons that cerebral difficulty is already established in these cases where the

pupils refuse to contract, and from observation in a recent case, and a successful one which I saw before, I believe that leeches should be employed at once in cases of this kind.

Let me say a word about removing the cause. I think we should not be in too great a hurry. I have known a child to be in imminent danger of strangulation after an emetic by vomiting while in a fit, and drawing a piece of apple into the larynx during an inspiration. Also to purgatives I am strongly opposed as adding another irritation to that already existing. I never give a purgative in threatened convulsions without first administering an opiate in order to leave room for the additional irritation.

It remains to say a few words about puerperal convulsions. Do they differ in their nature from other convulsions? I believe that they do not only in this, that we know their cause to be congestion of the kidney, and since the kidney is so important an organ, when its functions are disturbed nature makes more strenuous efforts for relief. The same remedies on the same principles are useful in these as in other convulsions. I have injected morphia in ½ grain, doses while the patient was in the convulsions, and also during the stertor that followed, with uniform benefit, in all preventing a recurrence for several hours. One case died on the 3rd day. She was convulsed before labor began, and was unconscious for the most part until she died. The urine became semi-solid on boiling, and remained so during the whole period.

I saw one case where veratrum viride appeared to produce a very decided effect. This case occurred in the lying-in hospital during my studentship, about twelve years since. It was under the care of the late Dr. Hall. The convulsions in this case occurred at intervals of about 20 minutes, and had lasted about 24 hours. Chloroform had been administered without much apparent benefit, and the case was considered hopeless,—such was the word sent to her friends. It was observed that just before a convulsion the pulse rapidly rose to 140 or more, and fell after the spasm had ceased. It occurred to us that if the pulse was reduced it might be of some benefit, so, considering that the girl was of a robust constitution and that it might be some time before the Doctor returned, we took it upon ourselves to prescribe. Accordingly we gave 4 drops of the fluid extract of veratrum viride and two more in half an hour. The pulse was reduced to about 80, and I think it was about an hour when the spasms ceased and did not return. The girl made a steady and good recovery which, under the circumstances, was attributed to chloroform. My impression at the time was that the medicine diminished the flow of blood to the head by diminishing the force of the circulation, but I think now that, like nausients, it diminishes the arterial tension by paralyzing the unstriped muscular fibres and favors passive congestion. I am not inclined to believe in the uremic theory of puerperal convulsions, not only from the action of the medicines in general use in these cases, but from the fact that they are relieved by bleeding, since the blood which remains in the vessels surely possesses the same proportion of the poison; and as for the theory that the difficulty is due to carbonate of ammonia, I may state that I have injected this salt into a vein without causing any symptoms whatever.

My friend, Dr. Duckett, of St. Joseph street, related to me a case, where the bromide of potassium appeared to intercept the convulsion. This woman was one of four sisters, all of whom, as well as herself and her mother had convulsions with every child. She was put upon fifteen grain doses three times a day for a week, and when labor began, as she evinced the symptoms which precede spasm, viz. headache, vertigo, imperfect vision, and muscular twitches; he gave her three doses of thirty grains each, at intervals of one hour with complete relief to the symptoms, and there were no spasms. The bromide appeared to have no influence upon the pains. In a case of my own where there was a large quantity of albumen in the urine, and considerable effusion in the face and hands, for a month previous to the confinement, I gave ten grains of the bromide of potash with diuretics, three times a day for a week previous to labor, with relief to the headache, and no convulsions occurred. It has appeared to me from observation and enquiry that puerperal convulsions in very many instances is due to tight lacing. The mother, as well as the daughters, in Dr. Duckett's cases, in whom the disease was considered to be hereditary, were all accustomed to tight lacing. Also the frequency with which convulsions are observed in primipara and unfortunate girls who naturally strive to conceal their condition, tends to confirm this observation. I will now close by speaking of a condition which might be interesting to nervous surgeons, and public speakers. Unconsciousness occurs in two opposite conditions of the vessels of the brain, viz, anamia and congestion. A nervous person on attempting to act or speak is affected by a violent emotion which produces a spasm of the cerebral vessels; his heart beats violently, his face is pale, the index of

the condition of his brain, and the words come forth slowly and with stammering, or he becomes confused and forgets entirely what he intended to say. It is not until symptoms of reaction set in, or, as the popular phrase has it, "until he gets warmed up," that fluency and ease is acquired. I have found a minute dose of morphia or a few whiffs of ether useful in this most embarrasing condition. Let me add the caution, that too large a dose produces the opposite condition of the vessels, quite as fatal to a successful result. I dare say alcohol acts similarly on some constitutions.

I feel, in closing, that my limited experience prevents me from doing justice to the subject about which I have chosen to express a few ideas.

Progress of Medical Science.

A STUDY OF THE CASES OF DISEASE OF THE SKIN TREATED AT DEMILT DISPENSARY, DURING THE YEAR 1875.*

* Read before the New-York Medical Journal Association, January 21, 1876.

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The number of cases of diseases of the skin which have come under my care in the Demilt Dispensary during the past year, and which I propose to analyze in the present paper, is six hundred and seventeen.

1. *Eczema.*—Of the two hundred and eighteen cases of eczema, one hundred and eleven were in male and one hundred and seven in female subjects, giving a preponderance of four males.

In regard to the location of the disease, in seventy-one cases where this was noted it occurred in the following order: Head, eighteen, hands, thirteen, legs, thirteen; ears, eight, beard, four; face, four; palms, three; arms, two; hands and arms, two; scrotum, two, lip, one; eyelid, one. Of eleven cases in which the side of the body was recorded, the disease affected the left side in eight, and the right in three.

In the treatment of eczema I have, of course, followed, to a greater or less degree, the accepted and well known methods as indicated in the text-books; but in the two hundred and eighteen cases, probably at least fifty modes of treatment have been required; for no disease of the skin exemplifies more than eczema the error of a routine habit of prescribing, and none exhibits more clearly the necessity of studying the case, and not simply ordering this or that accepted remedy irrespective of the particular requirements of the patient, or, as I have elsewhere stated, eczema requires management quite as much as treatment.

The treatment of eczema in children, of which we have seen that there were one hundred and two cases of ten years or less of age, offers a field of great interest for the study of the therapeutics of the disease. Every phase of it is here seen—acute, sub-acute and chronic, moist, pustular, squamous and papular; and the measures applicable to one form do positive harm in another. While, therefore, I can not discuss in full the treatment, I will mention a few of the more salient features of the disease as they have presented themselves in this clinic during the past year. I will not, however, reiterate points made in my analysis of the preceding year, and would refer those interested in the subject to that, as expressive of much that would be said at the present time did space permit. I have ordered poultices to the heads of infants with eczema very seldom (I believe but twice) at the Dispensary during the year, and then only a *single application* of the same, and that after the eruption had been left alone for a while, with only the repeated application of an ointment. The object of the poultice is to remove an incrustation; and after a single application over night, the head is to be washed in borax and lukewarm water, two drachms to a pint, no soap; and the appropriate ointment is to be reapplied as often as necessary in order to keep the parts thoroughly protected. I therefore order no more poultices nor washings, unless absolutely required; for, as a rule, the crusts which form afterwards will separate in a few days under the continued soaking with a soft ointment or cod liver or almond oil.

Last year I mentioned the use of tannin in ointment, one drachm to the ounce, as having given me good results; this year habit, perhaps, and the desire to test the value of different remedies, has led me to employ largely the bismuth subnitrate in ointment, half a drachm or one drachm to an ounce; and with many skins it acts very much better than the zinc ointment. I have also returned, in a measure, to the employment of the old unguentum picis or tar ointment of the pharmacopœia, diluted two, three or even more times, either with simple or rose ointment, or in combination with oxide of zinc ointment, and I find that it does not merit the neglect into which it appears to have fallen. I have no new experience to add in regard to the tannin ointment before recommended, when used it has proved serviceable.

I have employed baths more than formerly in the treatment of eczema, both in children and adults, among the poor, and they have at times rendered great service. As is well known, the application of simple water to eczematous skin does harm, and is to be avoided as far as possible; but the same does not hold true in regard to water medicated so as to offer a soothing element, by means of the carbonate of potash and soda, borax, acetate of potash, etc., combined with starch.

In a case of eczema of the scrotum in a boy, very great relief was obtained by soaking in a warm bath every night in an ordinary wash-tub half full, with something over an ounce of carbonate of soda, with

four tablespoonfuls of dry starch boiled, and the subsequent application of the tar ointment diluted with twice as much simple ointment, cured the case, which had been most distressing and troublesome. The boy took, at the same time, a little arsenic in rhubarb and soda mixture; but the relief afforded by the local treatment was so immediate and certain that no doubt could be entertained of its very great value.

Acute and exuding eczemas do not as a rule do well in baths, at least in my hands; but many children with subacute and chronic forms of the disease, more or less general, were treated with baths similar in the main to the above with avantage. It must be remembered that after coming from a bath all the diseased parts must be dried with the least possible friction, which is best attained by throwing a warmed linen sheet around the body and drying by pressing this on the surface; and also equally important that diseased surfaces must always be covered immediately with some protective dressing, otherwise the effect of the bath may be irritating, having dried the skin more than can be remedied by the natural oiliness of the surface. In private practice after a bath, the glycerate of starch or vaseline—the perfumed or "pomade vaseline" is most agreeable—may be applied to the entire surface if there is any tendency to general roughness or scaling, and furnishes a most elegant means of rendering the integument soft and supple.

In regard to the internal treatment of eczema, I find no reason to alter the opinions expressed last year as to the internal origin of a large share of cases, and of the consequent necessity of properly selected internal medication and dietary regulation.

I confess that I have been a little surprised, however, at the effects which I have obtained from arsenic in many cases. For the purpose of clinical study, I have given a large number of children no other treatment but asenic, except occasionally a little zinc ointment as a placebo. I have given it to infants as well as older persons, administering it in increasing doses till some of the physiological effects were observed, though this limit was not always sought, and I have seen both impetiginous and dry eczemas disappear in a very short time. I regret that I can not, at the present time, give definite results from my experience, for I am not yet able to determine exactly in what cases this method will do good, and when it will be inert or harmful. I believe, however, that the effect of arsenic is much more marked in the eruptions of children than in adults, my previous experience in the latter having forced me to report much less favorably than has been done by certain dermatologists, notably of the English and French schools; but of its very great efficacy in certain cases of eczema in children, there can be no doubt. I will mention in brief a striking case which has attended very regularly at Demilt during the past year.

Thomas Hayes, five years of age, was first presented at my clinic May 11, 1875, with the following history: When four months old an eruption, answering to the description of impetiginous eczema, developed upon the cheeks and head, and from that time he has never been free from the disease. It has gotten somewhat better at times under certain treatments, but has never left him, nor at any time has he been so as not to be much distressed with it. It has occupied in turn much of the body, affecting at times the popliteal spaces and other parts. When first seen, his whole face, eyes, head and neck, were covered with a moist papular eczema, bearing evidences of great itching; and his father testified that he tore the parts constantly, his sleep at night being almost entirely prevented. The arms were likewise the seat of a dry, papular eczema, considerably scratched, which had persisted since twelve months of age. The little patient wore the troubled, exhausted look common to such sufferers, and the father appeared almost equally distressed because of the apparent hopelessness of the case. He was immediately given cod liver oil in increasing doses and the oxide of zinc ointment, with directions not to wash the parts but to keep them constantly coated with the ointment, and to remove the woolen tippet which he had worn and which was irritating the inflamed head, neck and ears. There was but slight improvement from this; but in view of the very chronic character of the case, and because the child seemed to be one who required the oil, this treatment was continued unaltered till July 10th, a period of two months, when he was given a mixture containing three minims of Fowler's solution and two grains of ammonio-citrate of iron with bark tincture, three times a day, and the tar ointment was added to the zinc to assist in allaying the itching, the oil being continued.

This treatment was followed faithfully for six weeks, till August 31st, with really no gain, when, in view of the great amount of itching, I resolved to give arsenic and push it till good or bad results were obtained. Accordingly, the other treatment being suspended, equal parts of Fowler's solution and cinnamon water were prescribed; and four drops of this were ordered three times a day, the dose to be increased by two drops every other day until twenty drops three times a day were reached—the same local treatment being used, the ointment to be washed off with a solution of two teaspoonfuls of baking soda in a teacup of water, once daily. At this time the eruption was about in the state described as existing at the first visit, three and a half months previously, his general condition having improved but very slightly also under the oil and tonic.

In twelve days it was recorded that there was great improvement, and four days later (Sept. 16) still more relief; he was then taking twenty drops of the mixture, or ten drops of Fowler, three times a day; a large portion of the eruption had become papular, there were almost no excoriations; the child slept well and looked fifty per cent. better. The dose was then increased to thirty drops after meals, augmenting in the same manner two drops every other day. This dose being soon reached, it

was continued at thirty drops, or fifteen of Fowler's solution of arsenic, three times daily, until December 4, three weeks longer, when it was noted that the eruption had nearly disappeared, the father stating that the child had never before been so free from the eruption since its inception. December 30, he still continues well. The father testifies that whenever the arsenic is omitted, even for a day or two, the itching returns. The dose of the mixture was then ordered to be increased to forty drops (twenty of Fowler) three times a day, the dose of thirty drops not having caused any inconvenience.

On January 15, 1876, it was recorded that the forty drops had disagreed with the stomach and caused vomiting; in order, therefore, not to withdraw the remedy entirely, the dose was lowered at once to ten drops three times a day, with instructions to increase slowly to thirty, a point at which he had previously tolerated the arsenic perfectly. At his last visit almost every trace of eczema had disappeared; the color of his cheeks was of a natural rosy hue and the skin there smooth, the ears perfectly normal, and, but for slight papulation here and there, the disease could hardly be suspected. He sleeps well and eats well. March 11, 1876, he remains well.

To complete this history, I should state that the father is a decided asthmatic, and had eczema eighteen years ago; the mother is healthy. The child had wheezing lately, that is before commencing treatment; it has improved with the improvement in the eruption. There was no change made in the local treatment from first to last, and during the latter part of the time this was rather neglected.

I have elsewhere* written strongly against the evil of falling into the "rut" of treating eczema by means of Fowler's solution and zinc ointment, and mention the fact here to warn any against believing that because I have given *single case* where arsenic proved *the* remedy, that therefore it is valuable and to be administered in every case of eczema. Far from it; the cases, in my experience, are comparatively few where anything like this effect can be obtained. In this child I believe it was indicated by the asthma of the father and slight wheezing in the child; while the great amount of itching showed a nervous element which called for such a nerve tonic.

During the past few months I have been using a preparation of arsenic but little known or used in this country, but which I think bids fair to be far more useful than the well known Fowler's solution. This is the solution of the chloride of arsenic, the liquor arsenici chloridi of our Dispensatory—the old De Valangin's solution. Its advantages are that it is better tolerated by the stomach, and that it can be administered in large quantities; and thus far, in public and private practice, it has yielded results which I have failed to obtain from the more commonly employed forms of arsenic. The Dispensatory states that its strength is two-thirds that of Fowler's solution, but that it is to be given in the same doses. In one very old and obstinate case of eczema of the beard, in a man aged thirty, this preparation has been administered in doses of forty drops three times a day with the happiest results. He has been under treatment elsewhere for several years; and although persistent epilation and local remedies have done the most toward removing the disease, he still feels that when he omits the arsenic he has more irritation than when under its influence. He, of course, reached these large doses slowly, beginning with five drops after meals; he gradually increased by a drop or two a day to the full doses mentioned.

In pustular or impetiginous eczema, I have had very good success with the hyposulphite of soda, in large doses, thirty grains for an adult three or four times a day, largely diluted and given usually in cinnamon water, on an empty stomach. Last year I reported favorably of its employment in furuncles. I refer now to the more superficial suppuration of eczema. I think I have not used as much cod liver oil this year as last, the class of patients not requiring it, they being in the main better fed and less depressed and exhausted. I have, however, employed more acetate of potassa; indeed, as we rise in society we find, as I have before suggested, more need of two classes of internal remedies in treating many diseases of the skin, namely, evacuants or diuretics and nerve tonics; that is, we find more the results of over and wrong indulgence among those better able to procure luxuries, for which cathartics and diuretics are demanded, and we encounter also nerve exhaustion from responsibility and mental strain, which requires nerve tonics.

Infantile eczema was very generally treated after Mr. Wilson's plan, namely, a grain or two of calomel every day or two, or twice a week, according to the effect; and arsenic and iron, with a syrup internally, with generally a little compound tincture of bark to take the place of the wine. Cod liver oil was given to those of strumous habit.

2. *Phthiriasis.*—The treatment employed for the head form was always that described last year, namely, soaking three times in kerosene oil within twenty-four hours; then washing thoroughly with castile soap and warm water, and applying afterwards cod liver oil, if the head be very sore, or zinc ointment, or the white precipitate diluted three times. I have used this plan in private practice, and do not find that it is objected to; whereas the thoroughness and certainty of cure of a single soaking renders it a treatment to be recommended. It kills the nits and they become detached on repeated combing, which does not happen when an agent has been used which does not penetrate them. In private practice good results are obtained, but not so quickly, by means of highly scented white precipitate or citrine ointment, diluted three times; and the nits may be separated by means of a wash of equal parts of acetic acid and cologne.

3. *Acne.* In regard to the causation of acne, a large share of the patients presented some of the

* The Management of Eczema. G. P. Putnam's Sons, 1875.

manifestations of imperfect digestion, coated tongue, constipated bowels, flatulence or oppression after eating; although a first general question will commonly elicit the answer that these patients are perfectly well with the exception of the eruption on the face. Most of the girls with the simplex and punctata forms worked in factories, went to school, or lived out as servants; and another year's experience convinces me more firmly than ever that this disease is due to imperfect digestion, even though the results of it are not shown before they reach the urinary secretion, where, in place of the normal results of disintegration, we find urates, oxalates or phosphates.

The element of confinement to the house and want of fresh air seems to be wanting in those of the male sex who were affected with acne simplex and punctata; for we find among them two laborers, a farmer, butcher, driver, plumber and carpenter. But when one studies the diet commonly employed, it will be found that many habitually trangress in quality and quantity; and these are the ones prone to be affected with skin diseases and acne especially. Our people need much education on the subject of hygiene and diet—topics sadly neglected in the teaching of the schools, by and medical, and which the practitioner has mainly to study and develop for himself, and should instruct the patient in.

Quite a share of the patients with the simplex and punctata forms of acne received acetate of potassa first, followed by tincture of the muriate of iron as soon as the new elements of disease cease to form. I have also given glycerine internally, with citrate of iron and quinia dissolved in it, with good results to those with thick, doughy skins. Last year I stated that arsenic, in my experience, was of very little use in acne. I must modify this in regard to the De Valangin's solution already alluded to, which I have used in certain cases with excellent results, which I hope to communicate more in full at a latter day.

Locally I have little new to offer at present, beyond what was reported last year, except that certain cases I have found to do well under citrine ointment, diluted three times, and well rubbed in at night. The first effect is stimulating and the face appears worse, when the treatment is to be suspended and returned to in a few days.—*American Practitioner.*

TREATMENT OF PLACENTA PRÆVIA.

Dr. T. GAILLARD THOMAS, after narrating to the New-York Obstetrical Society (*American Journal of Obstetrics*, Feb. 1876) the notes of a case of placenta prævia, made the following remarks. Is it better to allow a pregnancy, during which the woman has become exsanguinated and dangerously reduced by repeated hemorrhage from placenta prævia, to go on to term, or should premature labour be induced? He chooses the latter alternative, and has lost but one case of placenta prævia in which he brought on labour prematurely; the case died of post-partum hemorrhage. The children, of course, usually succumb. In the case just mentioned he detached the placenta (which was centrally inserted), cut the cord and removed it, leaving the child in the uterus; no hemorrhage occurred; twenty-four hours later the child was safely expelled. The uterus contracted well apparently, but three hours afterwards the family physician was hurriedly called and found the lady dying of hemorrhage. In his opinion the induction of premature labour offers greater safety, both to the mother and the child, than the plan of allowing the pregnancy to go on to term. The hemorrhage from this malposition of the placenta generally occurs suddenly, often at night, and before the physician can reach the patient she is beyond medical aid, or at least at the point of death. These repeated depletions also debilitate the child, and the question arises whether a child born prematurely at the eighth month is not fullys a likely to live, or more so, than one weakened by repeated hemorrhages. If the labour is induced by rubber bags, the hemorrhage will be slight, and the danger to the mother not great, for these rubber dilators compress so thoroughly as to arrest the bleeding from the placenta during the dilatation of the os; of course the diagnosis should be correct, and a granular endocervicitis producing occasional discharge of blood should not be mistaken for placenta prævia. This method of treatment is not mentioned in the obstetrical text-books.

THE EARLY RECOGNITION AND TREATMENT OF LATERAL CURVATURE OF THE SPINE (*a*)

By T. CARR JACKSON, F.R.C.S.,
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PERHAPS there is no class of diseases involved in greater obscurity in their origin, or presenting greater difficulty to the practitioner, than those affecting the spinal column.

It was an observation attributed to the late Mr. Abernethy when beset with difficulties, "that complex forces produce complex results;" and assuredly we have in this structure an exemplification of his remark, for the spine equals, if it does not surpass, all other parts of the frame in complexity of structure, and its functions must necessarily be equally complicated, whether we view it as the centre of the skeleton, as a bond of union between different parts of it, or as concerned in the production of a variety of movements, upon the integrity of which much of the beauty and symmetry of the human figure depends.

It is not, however, my intention to dwell upon the anatomy and physiology of the vertebral column, my main object being to glance cursorily at the most important facts relating to what has hitherto been regarded as a formidable and unmanageable deformity, with observations directed more especially to its early recognition, inasmuch as it is only in its very earliest stage that treatment is of any avail,

(*a*) Abstract of a paper read at the Harveian Society of London, October 21 1875.

so far as a cure is concerned. Scoliosis, or lateral curvature, is by far the most common form of spinal deviation, and is not, like angular curvature or Pott's disease, almost exclusively confined to the humbler ranks of life. It rarely manifests itself under thirteen or fourteen years of age, and in the large majority of instances in females. This period of life is intimately associated with the phenomena of growth—a period also when the health is likely to become impaired, the constitution deranged and enfeebled, producing physical debility.

It will not be necessary for me to dwell upon the causes which induce debility, which I hold to be the chief predisposing cause of lateral curvature; but as the term is vague without some special application to its object, I may briefly allude to its more prominent forms.

In the first place there is a large proportion of females in the middle and upper ranks of life who do not enjoy even a moderate state of health. In these the usages of modern society call so much more on the mental than the physical powers, particularly in the instance of young females during the period allotted to education; and more especially when the peculiarities of the female system begin to disturb the constitution, that it is but too obvious the part a debility of this description plays in the production of deformity.

Secondly, rapid growth is a very striking source of debility, out of which deformity may arise. The spine in such persons being endowed with an unusual degree of flexibility, it requires a muscular action of great power to sustain its firmness in the erect posture, and this is usually wanting.

Thirdly, severe and protracted illness will induce a form of debility no doubt many of you are familiar with, where patients are utterly unable to stand long after they are able to sit up in bed, "illustrating the remarkable difference in the relative amount of muscular force required to hold the spine erect and to maintain the erect position of the body." Admitting, therefore, that debility, *inherent or induced*, is the most frequent of the predisposing causes, we shall cease to be surprised at the large number of young persons who are thus affected since they must bear a certain proportion to the causes that give rise to the losse of muscular power.

"Now the animal body in reference to its muscular movements must be considered as a system of moving powers; each movable part *has its own system of muscular action* adapted for the purpose of its own particular motion *and its own centre of motion*, about which the moving powers act. Hence it follows that any disturbance of the muscular power cannot be considered apart from the influence of *gravitation*." The application of a mechanical cause, therefore, is the touchstone of that disturbance of the centre of gravity which results in deformity, inasmuch as the waving line of the spinal column allows of a due distribution of the weight with respect to the centre of gravity, the line of which carried through the entire trunk must fall within its base of support, the space covered by the feet, or by one foot when we support the body on one only. Here also it may be incidentally mentioned that the causes which induce debility do not alone affect the muscular apparatus; they influence also those structures to which are mainly committed the charge of preserving the relative position of one vertebra to another—viz. the ligaments which link the vertebræ in a continuous chain and determine the limits of their motions upon each other, as well as those entering into the composition of the column. A German author, whose name I cannot call to mind, has pointed out how a low state of hæmatosis constitutes the general predisposition to scoliosis—that is to say, an anæmic condition of the blood with an insufficient nutrition of the *various structures* of the body deprives the cartilages and bones of their usual firmness and elasticity, thus rendering them susceptible of an alteration of their respective forms; the softness of bone is therefore a simple result of a low state of nutrition, and not of any specific structural disease, as in caries.

If therefore, we take into account the immense quantity of elastic material in the spine, and that the strength of the whole mainly depends upon it, and the necessity which exists for the maintenance of equilibrium in all parts of it under every change of posture or application of extraneous force, we can readily imagine how the centre of motion, and consequently the centre of gravity, becomes altered when from any cause the muscular power is defective, and the body thrown into such a position as shall enable the mechanical causes to act in obedience to the law just propounded. It cannot fail to strike every observer that mechanical causes must be constantly exerting their prejudicial influence when the system is weakened and muscular power diminished. So long as the weight of the body is transmitted to the ground by two pillars of equal length, so long will the vertebral column occupy the central space between them, but reduce the value of either as a pillar of support, and the weight remaining unchanged, the opposite limb performs the extra duty; hence we see what trivial circumstances are sufficient to retard the train of evils which may subsequently follow.

Now, to entertain a correct idea of the operation of these two causes, vital and mechanical, as they may be termed, we must first consider in what scoliosis consists. Lateral curvature is not a mere curving of the spine to one side. The starting point of all lateral deviation is *torsion* of the vertebral column upon its axis. This deflection is produced in a manner precisely similar to that which may be artificially produced by bending a piece of whalebone, or a flexible green twig, into the shape of the letter S. If one of the extremities be forcibly twisted in one direction, the other will immediately become distorted in a contrary manner. This invariably happens for the vertebral column, the

inferior torsion always being the converse of the superior deflexure, and if it were possible to untwist one end, the other would spontaneously return in the same proportion to its proper shape, exactly as in the case of the twig or whalebone.

The main object, therefore, in diagnosis should be to detect the earliest sign of torsion, for unless this is clearly made out the progress of the case to the second stage is inevitable, from which recovery is not possible. The symptoms usually attendant upon lateral curvature are not only very numerous, but also exceedingly anomalous in character, besides which the earlier indications of the disease, those denoting the rotatory twist alluded to, either fail to strike the eye of those unused to investigate these matters, or, worse still, are attributed to some other source than that from which they really spring. Thus, for instance, it is most common to find that the symptoms are dated not only from that period when the eye had detected some morbid change in the patient's symmetry; whilst it is very evident that a variety of phenomena must have occurred prior to the advent of such a serious result.

Foremost amongst the early symptoms that denote torsion are an awkward carriage or position, a shambling, ungraceful walk, which strongly contrasts with the light, airy step of those whose symmetry is unimpaired. These symptoms strike the practised eye as a group indicative of debility, defective vitality and elasticity—a conflict, in fact, between the operation of mechanical laws and vital force. A stage further and the weakness becomes increased; the patient will be found to droop either forwards or to one side whilst sitting, especially at lessons, and she requires constantly admonishing to keep herself erect. In all probability some sense of weakness is experienced in the back, which is but too often set down to obstinate perseverance in a bad habit.

At a still later period more marked evidences of the affection begin to manifest themselves, and are too obvious to require pointing out. A description of them would least me beyond the scope of these observations—viz, the early recognition of the disease.

The objective signs of early rotation are very few, and it is a most essential point in making the examination to investigate strictly the condition not only of the spine itself, but of the extremities in connection with it. I have already alluded to the fact that trivial circumstances will induce spinal deviation in those predisposed to it, any injury or congenital defect that disturbs the equal action of the legs producing lameness. The habit of standing on one foot, the pinching of a tight shoe, the abomination of the modern peg top-heel boot, are frequently instrumental in its production, and it is necessary that any one, or a combination of them, should by determined, in order that their effect upon the spine itself should be accurately made out.

On examination of the spine itself we shall find but little to denote the severity of the possible sequences—nothing more, perhaps, than a slight prominence of one hip, or rather crest of the ilium. The lumbar wall sinks a trifle in the very earliest stage, the opposite side being more directly vertical in outline. This sinking corresponds to what afterwards becomes the concavity of a curve; but what I take to be the most important of all is a slight prominence of the sacro-lumbalis and longissimus dorsi lying upon and slightly raised by the transverse processes of the lumbar vertebræ.

Even in this early stage the scapula is slightly elevated and removed in an appreciable degree from the median line, and becomes more noticeable when closely compared with that of the opposite side; yet a degree further and these symptoms can scarcely be passed over or mistaken. The ribs in the dorsal region of the right side bulge slightly, the prominence of the lumbar muscles is more pronounced, and the right haunch stands out in clear relief. The flexibility of the spine is impaired, the outward symmetry of the body is deranged—circumstances that are mainly dependent upon a persistent rotated condition of the vertebræ, and the supervention of secondary pathological changes in the structures entering into the formation of the spine and those in relation with it; beyond this point the deformity rapidly increases. The ribs of the right side bulge outwards, the spaces between them bein gwidened; the scapula of the same side is tilted upwards, and its inferior angle rendered prominent—sometimes remarkably so, in consequence of its escape from the embrace of the latissimus dorsi, and forms a very peculiar and prominent feature. The ribs on the opposite side are depressed and flattened, and the left shoulder sunk below its natural level. Here, however, we are dealing with results. Lateral curvature in its ordinary acceptation has become established, and to pursue it would occupy space and time beyond the limit assigned to this paper.

Treatment.—Sir Charles Bell has with great truth remarked that if this condition of the spine be neglected, a girl whom nature intended for a fine young woman becomes "an object." When, therefore, a patient is brought to us suffering from the early symptoms which denote the starting point of lateral curvature, viz, the rotatory twist, the primary step should be to institute a rigid examination with a view to discover the mechanical cause or extraneous force from which the rotation has originated—what, in fact, has disturbed, or has a tendency to disturb, the action of the centre of gravity, which, in a pathological sense, means the superincumbent weight, in combination with extraneous forces, acting upon structures physically incapable of bearing it—the preponderance of physical disturbance to the natural function. All attempts, therefore, to redress the grievance by any other method than that of counteracting the disturbing force must necessarily fail.

It unfortunately happens that cases in their early stage rarely come under our observation, when restoration is easy—I may say certain. The valuable period is generally wasted in the trial of remedies that cannot do good, and may produce serious injury.

The disease being in its essence a constitutional defect in healthy nutrition, the surgeon must form a just estimation of the sources of the constitutional defect in each particular case; the remedies, to be useful, must be directed to the cause of the disease, and not to its effect. The patient should not only be protected against influences likely to depreciate the physical standard or her constitution, but measures should be adopted to enhance its vigour and fortify the frame against distortion. The patient should live regularly and generously, avoid fatigue, and, in the language of a word-painting American, "abstain from all conflict with the laws of physiological hygiene;" should alternate in proper proportion between rest and locomotion, providing for freedom of exercise without indulging in habits likely to exhaust her physical power by over-exertion; in fine, for a year or more should live for physical well-being alone, until puberty, with its attributes has become fairly established and the constitution confirmed. Other measures, however, are necessary to avert the impending deformity—viz, those relating to the operation of the mechanical cause, the superincumbent weight acting, as I have already explained, by deviating the centre of gravity. It must be evident that, so long as a patient stands erect—equally balanced upon her feet—the centre gravity will fall in its proper place, but let her stand at ease, or sit upon one haunch, to relieve the weariness inseparable from general debility and languor, and the spine is at once thrown out of its perpendicular. The effect of this is to incline the pelvis, on which, as a *base*, the spine rests, and that, too, a very small one compared with its height—viz, the sacro-lumbar articulation, and the line of gravity inevitably traverses a new series of curves, causing the spine to rotate upon its axis and subsequently inducing curvature out of the mesial plane. The spine is projected to the left side at the lower part, and to preserve the balance the body is twisted to the opposite side above.

Rotation would appear to be the starting point of every deformity. In varus the anterior part of the foot rotates upon the transverse tarsal joint of the foot, the primary disturbed motive force being in the tibialis anticus and posticus muscles. In genu valgum the tibia is rotated upon the femur by the action of the biceps long before the bending inwards occurs, and one of the chief obstacles to treatment in each of these diseases is difficulty in unbending effectually the twisting. It is a somewhat singular fact that a rotatory movement is observed in buildings which are loosened upon their foundations.

Now, so long as a patient is in motion, the centre of gravity falls within its proper base, and when recumbent, the action of it in an improper line is abolished. Hence, if the principles inculcated are true, it follows that the patient should be either constantly recumbent or in motion; but here we encounter the established habits and motions of society. It will be argued that if the patient be confined to the horizontal position, the health will certainly suffer, and this is perfectly true, unless counteracted by the other alternative, freedom of exercise; and we must not forget the reasoning of Meyer, that the recumbent posture, unduly maintained, has a tendency to diminish the normal thoracic curve of the spine, more especially when it is still over-flexible. Hence we must be particularly careful that the recumbency be not too rigidly enforced or prolonged; but this can scarcely be the case if a patient be allowed to lie on her side, or choose any position consistent with her comfort, so long as she is recumbent.

My own practice, therefore, in the treatment of these cases is based upon the foregoing principles. Patients must be recumbent or in motion; when in motion they may walk, run, jump, dance, &c., but there must be no standing, lounging, nor even sitting, and the education must be conducted in the recumbent position, and unless there is manifest disposition on the part of the patient, and a moral co-operation of the part of her friends, no good will result, or, at the best, the distortion fixes in a moderate degree. The patient, moreover, should sleep on a firm matress, with a low pillow and endeavour to change the side upon which she sleeps. The spine should de sponged and well rubbed night and morning.

Now comes the question of exercise. I concur with Mr. Skey in thinking that it should follow, not precede, other treatment. I am equally sure that, whatever exercise be adopted, it should tax the entire muscular system, and not exempt one part or the other; neither should it, under any circumstances, approach exhaustion of the physical strength. And here it may be mentioned that a certain amount of exercise is quite compatible with rest in the horizontal position.

I have occasionally practised where the torsion is fully marked, and I have thought with benefit, such as the following. Let us suppose an ordinary case, in which there is slight curvature above on the right and below on the left side:—

I place the patient standing with her back towards me. I then cause her to stiffen her neck and left shoulder, while offering support with one hand to the patient's right arm, and applying the other to her left hip. I cause a movement of the upper part of the body tending to carry it to the left side and slightly backwards, preventing, at the same time, all attempts to lower the shoulder or bend the trunk on the right hip. This movement, when properly performed, must cause rotation of the dorsal vertebræ to the left, and, consequently, a corresponding motion of equal extent of the lumbar vertebræ. During the movement the thumb of the left hand lying over the first lumbar vertebra informs me of degree of tersion of the spine, and whether the muscular action has been properly accomplished. These movements may be continued for twenty minutes, with an interval of rest, four or five times a week, once daily, sufficient care being taken that fatigue is not induced and, I may say that when they are properly performed in moderation they induce neither pain nor fatigue.

In the incipient stage of the disease I entertain an insuperable objection to the application of the so-called mechanical supports, varieties of which bear the name of their several inventors. They, one and all, consist of a steel pelvic band, from which arise central or lateral crutches with a superadded mechanism of rotation plates acted upon by cog-wheels or springs. A belief is entertained that the active part of such machinery can powerfully influence a curved or twisted spine. Nothing can be more delusive. In the first place the human body is mechanically in a state of unstable equilibrium, and therefore the attempt to get a fulcrum fails, and consequently the instrument will rotate in spite of every device to obviate it; secondly, if great force be exerted the crutches will press unduly upon the axilla and cause excoriation of the skin, and I regret to say I but too often see sad proof in such misdirected agency in the shape of absorption of the pectorales, the result of long-continued injurious pressure; and thirdly, they interfere with the employment of the various means of calling into action the muscles generally, and the improvement in tonicity and power of those which constitute the true and only support of the spine itself—viz. the dorso-spinal muscles.

It is much to be regretted that so such ignorance is yet displayed of first principles of physiology in the construction and application of these instruments. Hence we cannot wonder that the treatment of this affection has of late years been divided between the quack and the instrument maker, and the singular anomaly its scientific and empirical aspect presents.—*Dublin Medical Press and Circular.*

SCARLATINAL EAR DISEASE.

This subject is one of such constant interest that we quote from the Edinburgh *Medical Journal* the following remarks upon it, by Dr. J. P. Cassells, M.R.C.S.:—

Scarlatinal ear disease, the most destructive of all the ear diseases, and the one most frequently met with in general practice, arises out of the naso-pharyngeal affection, which is so marked a complication of this exanthem. The propagation of this congestion along the Eustachian canal, into the cavity of the tympanum, and thence to the mastoid cells, must have been frequently witnessed, even by practitioners not specially interested in the practice of this department of our art. When this, the initial step in the causation of the ear disease, has taken place, its progress and development proceed with extraordinary rapidity. The Eustachian canal, as a result of this tumefaction of its tissues, becomes concentrically closed; in consequence, there is a rapid increase in the congestion of the tympanic lining membrane, owing to the disturbance which a closed Eustachian tube causes in the balance of the tympanic air-pressure. Inspection of the membrana tympani, at this stage, shows it to be, in general, unaffected by the congestion of the tympanic lining membrane. The temperature of the patient, at this period, is considerably increased toward evening, without a corresponding fall in it in the morning; there is much restlessness, rolling of the head, and more or less delirium, generally out of proportion to the violence of the general febrile attack. If now the interior of the ear is examined, the membrana tympani being still unaffected, except in a very slight degree, by the general congestion, it is generally possible to recognize through it the deeply purple-colored tympanic lining membrane. As yet, there is no effusion into the cavity of the middle ear, although its flow is imminent. Up to this point in the progress of the malady it is possible, by the timely use of the knife, to bring about resolution of the diseased action; failing in this favorable and more desirable termination, the certainty nevertheless remains, that by this means the disease is deprived of its power to commit damage. This stage in the treatment of the disease I call that of resolution and prevention.

The next step in the onward progress of the affection is more characteristic, is surrounded with more risk, and is of shorter duration than the preceding one; and because the resolution of the disease is no longer attainable, nor all the dangers to which it gives rise preventable as they were in the earlier stage, I have named it the stage of preservation or cure. It is now that, owing to a marked increase in the hyperæmia of the tissues, and a diminution of the support usually afforded to the engorged vessels, there takes place an exosmosis of serous-looking fluid, which speedily fills the tympanum and mastoid cells. The pressure from this accumulation, constantly increasing as the fluid becomes greater in quantity, causes, at last, ulcerative absorption of one or several points in the parietes of the tympanic cavity, or mastoid cells; a process, I may remark, that goes on with astonishing rapidity, and, as may readily be supposed, leads to serious consequences. Indeed, the future of the case is determined, in a great measure, by this process, and the nature of the tissue in which it is set up; if it is the membrana tympani alone that suffers from the destructive process, less danger, both present and prospective, is likely to follow, than where the bony wall is broken down or perforated. The general symptoms from which th patient suffers, in this stage of the disease, are much graver than in the former one; there is, usually agonizing pain complained of in the intervals of freedom from this symptom; there is often wild delirium, and not seldom a state of coma, due to the pressure of the effusion upon the labyrinth. Pain, as a symptom, however, is not, by any means, a constant one; when it is present, it usually indicates periosteal or meningeal hyperæmia. If the membrana tympani is now inspected, it will be found no longer possible to see the purple-colored lining membrane of the tympanum, by reason of the changes which have taken place in the membrana tympani itself. It is now of a bottlegreen color, with more or less bulging outward; or it may

assume a yellowish color, if the contents of the tympanum have degenerated into pus.

It is in this stage of the disease that aural surgery, as a preservative, displays its advantages over the *laissez-faire* method of treatment. A free incision through the bulging membrane gives exit to the fluid, and arrests the destructive processes that may have been set up in some vital part of the organ. On the other hand, when the nature of the case is unrecognized, nature relieves herself by discharging the pus (happily for the patient if it be through the membrana tympani), with no other damage to the organ, even though a life-long otorrhœa is the consequence.

THE RAPID RELIEF OF NEURALGIC PAIN.

Dr. Spencer Thomson considers that instead of the employment, as of old, of external applications to palliate suffering in neuralgic affections, employed with the hope that the disease might be conquered, after a longer or shorter interval, with quinine, carbonate of iron, arsenic, and other antiperiodics, which were not always certain, we may now congratulate ourselves that a large number of cases of so-called neuralgia may be quickly, either permanently cured by the relieving remedy, such as phosphorus, or relieved, until such time as specially curative agents, or curative general treatment, have removed the tendency to the recurrence of the pain.

As one of the newest of the remedies, he first alludes to one which is much too slowly making its way into the domain of practical therapeutics—the recently introduced "tincture of gelseminum sempervirens," or yellow jasmine. In his presidential address delivered before the South-Western Branch of the British Medical Association in 1874, he alluded to this remedy as having proved very successful in his hands, and in a paper he read this year, at the Plymouth meeting, he was able to state how fully it had fulfilled his expectations during the twelve months that had elapsed since his former notice of it. Directly or indirectly it had been used by him, or by his authority, in at least forty cases to which it was applicable, and with almost constant success. In using the word "applicable," he does so in accordance with his own experience that the remedial power of the gelseminum seems confined to those branches of the trifacial nerve supplying the upper and lower jaw, more particularly the latter, and more especially when, in either jaw, the pain is most directly referred to the teeth or alveoli; indeed, he can scarcely recall an instance of the above in which relief was not speedily and thoroughly given. The usual expression of the patient has been, "It acted like a charm."

In illustration he gives one case: On Sunday afternoon, June 20th, the housemaid of a friend, a retired medical man, came to him with a note from her master, stating that she had been suffering from agonizing pain, of what was thought to be toothache, for six-and-thirty hours. Nothing gave relief, and no dentist could be found to remove the only suspicious tooth. He sent her home with a bottle of gelseminum tincture, which he kept for home use, desiring that she should have twenty minims at once, and twenty more within two hours, if not relieved. Her master sent him a note, in which he stated that the patient had experienced immediate relief.

In the notices he had met with on the use of the gelseminum, the doses quoted seem all too small. Dr. Thomson now almost invariably prescribes, for an adult, twenty minims of the tincture as a first dose, to be repeated any time after an hour and a half if relief is not given. He has rarely had to order a third dose, and he has never found any inconvenience result from the larger doses. In one instance a gentleman who, unadvisedly, took thirty minims at once, and immediately afterwards went out driving, told him he experienced, for an hour or two, some uncertainty of vision when guiding his horse. A severe attack of neuralgia of the jaw was, however, cured by the one dose, and did not return.

After referring to the solution of Calabar bean, to the tincture of actæa racemosa, and the nitrite of amyl, Dr. Thomson concludes by saying that, with morphia, and occasionally—but only occasionally—atropia, to use hypodermically,—with phosphorus in solution, with gelseminum, aided at times by the ordinary external appliances, such as heat, or freezing if need be, aconite, and chloroform, one ought to feel fully prepared to meet and subdue at the time most cases of neuralgic pain, generally.—*London Lancet*, December, 1875.

THE ETIOLOGY OF TYPHOID FEVER.

BY THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

Notwithstanding the many excellent monographs we possess upon the subject of typhoid fever, it must be said that much remains to be done before the medical world shall become unanimous upon all points in the history of that very important disease. A discussion has recently taken place in the Société de Médecine Pratique of Paris which throws some light on the etiology, a point always very obscure. Dr. Flamarion mentioned that he had observed seventy-eight cases of this affection at the end of 1873 and the commencement of 1874 in two villages in Haute-Marne, twenty seven of them being in Louvières and fifty-one in Donnemarie. Only two of these patients died, one of them during the disease, and the other in the period of convalescence, in consequence of imprudence.

The author, without going into any generalities about the etiology of typhoid fever, limited himself to seek out what was the origin of the two epidemics he had witnessed. He insisted particularly upon the evil influence which the water seemed to maintain, considered either as causing exhalations, or as an article of consumption. It seems that at Louvières

twenty-one patients out of twenty-seven lodged in houses the doors and windows of which looked out upon a watercourse, which was pretty clear, but along which, for some years past, each house had established a sort of washing establishment, which became the receptacle of the kitchen refuse, and sometimes of filth.

Dr. Flamarion with Pettenkofer, makes the level of the underground water play an important part in the production of typhoid fever. The lowering of this level after a long drought, must, he thinks, contribute to provoke a putrid fermentation in the bed of such underground streams. For some years past the inhabitants of Louvières, it seems, had given up getting their supplies of water from springs which arose above the ravine, and had drawn them from a new spring in the middle of a little hill. Now, it was impossible not to be struck with a regular succession, after the dryness, of the appearance of new cases of typhoid fever in July and September, 1873, in this village.

At Donnemarie there was no watercourse, except a little river, which ran at the foot of a hill, at the top of which the village was situated. When rain falls, the streets are furrowed in all directions by currents of water which may sometimes change into little torrents. These unite in a double stream, which merges into one in the middle of the hill, where the public fountain is situated. These streams, thus contaminated, become infiltrated by the waters which wash the dunghills and carry with them the straw, so that, when it rains, there issues from the pipe of the public fountain a dirty, muddy water which the cattle sometimes refuse to drink. A remarkable fact is that the epidemic in this village commenced at the beginning of December, after abundant rains, and that the recrudescence of the disease has always coincided with an elevation of the layer of water in the pluviometer. The chemical analysis of the fountain water, in December, showed a great quantity of organic matter in it.

With regard to the treatment of typhoid fever, the author mentions some of the so called special treatments of the disease; and he more particularly insists on the treatment of Brand, which he could not try in the country on account of the prejudice of the country people.

He does not see that this method, which at first promised so much success, now gives results more favourable than those obtained by Valleix, Bouillaud, Andral, and Louis. The best statistics vary from 6·6 to 9·7 per cent.

Dr. Flamarion, for his part, said that he had employed a treatment apparently very complicated, but which was based on the general principle of watching indications, which he divided into general indications, directed to the whole of the symptoms and to the form of the disease, and special, which were directed to each separate symptom. Thanks to this treatment, the author had lost only 1.33 per cent. of his patients, for he eliminated the case of death due to imprudence at a time during convalescence, when cure might be considered as certain.

Dr. Flamarion then passes in review the different methods of treatment which have been suggested to him by the general indications, in the forms of ambulatory, mucous, and etaxodynamic fever. He then refers to the methods of treatment suggested by the special symptoms of each case, such as headache, delirium, pain in the spine, fever and heat, fuliginosities, diarrhœa, vomiting, constipation, meteorism, piles, bronchitis, hypostatic congestion, pneumonia, and gangrene.

It will be seen by this *résumé* of Dr. Flamarion's paper, that in France, as in this country, it is now beginning to be almost universally admitted that the prominent cause of typhoid fever is the impurity of drinking-water. Instances have of late years been so multiplied of the evil effects of the communication of sewage with drinking-water that there are probably but few physicians who now refuse to admit that this is the chief cause of the occurrence of epidemics of typhoid fever. Dr. Flamarion says but little about the contagious nature of the disease.

With respect to the treatment of Brand by cold water affusions, one very great difficulty in carrying this out has been mentioned; and that consists in the great prejudices against such a treatment, which exist even in London and in the best conducted hospitals in this country. It is doubtful, on this account, whether the cold-bath treatment of typhoid fever has ever been fairly tried in this country as yet. Whether Dr. Flamarion's wonderfully excellent statistics could be verified in London is a matter of grave doubt, and we suspect that, under all treatments, the mortality from typhoid fever will occasionally prove very high in such large cities. But there seems to be some prospect of almost entirely getting rid of typhoid fever from our better-drained towns. Meanwhile, the last word has by no means been spoken about typhoid fever and its etiology and treatment.—*Medical Press and Circular, April* 14, 1876, *p.* 322.

CLINICAL LECTURES. ON PLEURITIC EFFUSION

Delivered at the Liverpool Royal Infirmry by A. T. M. Waters, M. D., Physician to the Infirmary.

Gentlemen: I wish to call your attention to-day to some cases of pleuritic effusion which have been in my wards, and to make them the subject of some remarks on the affection. I shall confine myself for the most part to those points which I consider of the greatest practical importance, and first I will refer to the subject of diagnosis.

It may perhaps appear to you to be very easy to diagnose the existence of fluid in the pleural cavity— to differentiate beween liquid and solid matter within the cavity of the chest; and yet it is in some cases by no means so. I have known physicians of great practical experience mistake a solid lung for pleuritic effusion, and pleuritic effusion for a solid lung, and

I have not been altogether free from such errors. There is, indeed, no single sign which invariably exists by which pleuritic effusion can in all cases be certainly diagnosed, and it is undoubtedly true that the characteristics of its presence on which we mainly rely may and often do lead us into error.

Let me say a few words in reference to the evidence we derive of the existence of effusion from *percussion*. It is obvious that any solid or liquid in the chest will give rise to dulness on percussion; and it can only be by the character of the dulness, or its shifting nature, that we can say that it depends in any case on pleuritic effusion. Undoubtedly there is usually—indeed in the great majority of cases—a profound character about the dulness which can scarcely be mistaken; but there are exceptional cases of extreme dulness without any effusion. You may recollect the case of B—, in No. 10 ward, who came to us with a history of pleurisy, and in whom we found dulness of a very leaden character over the whole of the left side, extending up to the clavicle, and passing to the extreme right of the sternum. The breath-sounds were absent below, and only heard faintly at the upper part of the chest; moreover there was absence of vocal vibration, and heart-sounds were faint and best heard to the right of the sternum. The presumption that pleuritic effusion existed was very strong, and it was thought desirable to ascertain the fact, so that if fluid were present some of it might be drawn off, and thus the urgency of the symptoms be relieved. A fine canula was accordingly introduced, and the aspirator was used, with the result, however, of drawing off only a few drops of blood. Not satisfied with one exploration, I subsequently repunctured the chest at a different spot, but the result was the same. The progress of the case showed its nature, faint crepitation was heard after a time, and death revealed to us the actual condition of the lung. It was more or less solidified throughout, and universally adherent to the chest walls; the pleurae were greatly thickened: and there were strumous deposits in the anterior mediastinum. These deposits had caused the dulness, which extended to the right margin of the sternum, producing thus a sign which, taken with the other signs, I had never previously met with in any lung disease except pleuritic effusion and cancer.

Again in reference to the shifting nature of the dulness, you must not, in diagnosing pleuritic effusion, depend too much on the fact, which I have often demonstrated in the wards, that the line of dulness varies according to the position of the patient. If the lung is perfectly free from adhesions, the fluid in the chest will graviate to its lowest part, and the upper line of dulnesss will vary according as the patient is sitting or lying: but some of you will recollect the case of the woman in No. 15 ward in whom we had marked dulness, with absence of breath-sounds in front, of the left lung reaching to the level of the second rib, with resonance at the back extending even below the angle of the scapula, and from whom we draw off, at the time these signs were present, a large quantity of pus.

Auscultation often affords valuable aid in the diagnosis of pleuritic effusion. Speaking generally, the breath sounds are usully either absent or faint over the seat of effusion, but they may be also absent over an intensely solidified lung, or over one which is less solidified but adherent by very dense pleuræ to the chestwalls, just as was the case in B—, to whom I have referred. Again the breath-sounds may be very loud, simulating those of a solidified lung when there is a large pleuritic effusion. There was a woman under the care of my colleague, Dr. Glyan, some time ago, in whom loud bronchial breathing was heard, both over the front and back of the right lung, where there was marked dulness, and yet, as was subsequently proved, a very large quantity of fluid existed in the pleural cavity. In children, again, the phenomena of bronchial breathing and bronchophony are often present, although the effusion may be great and I have met with other instances besides the one I have alluded to where loud breathing has been heard in adults. Moreover, you must not forget that in old standing cases of effusion the sound lung takes on increased action, the breath-sounds become puerile, and may sometimes be heard on the opposite side of the chest.

But to take another sign to which great improtance is very properly attached. In pleuritic effusion it is undoubtedly true that *vocal vibration* is generally absent: that when the hand is placed on the chest whilst the patient speaks no thrill is communicated to it; and yet I have sometimes felt a well marked vibration over a chest from which I have immediately afterwards removed a large quantity of fluid. Some of you may recollect the case of A—, in No. 10 ward, who was the subject of empyema In that case I pointed out to an assembled class that we had most of the signs of pleuritic effusion well marked—viz., leaden dulness, absence of breath sounds, etc. The man had been previously tapped and a considerable quantity of fluid had been withdrawn. We had watched the gradual reaccumulation of the fluid, and the time had come when I resolved to retap. Over the affected side—over the seat of leaden dulness, and where the breath-sounds could not be heard—there was distinct, well-well-marked vocal fremitus, An aspirator-tube was introduced, and we drew off ninety ounces of pus.

I removed, some time ago, two pints of serous fluid from the chest of a man in whom vocal vibration was distinctly perceptible, except at the extreme base of the lung—perceptible

where there was marked dulness from the presence of fluid.

Again there was the case of the woman McK——, in No. 15 ward, who was admitted with pleuritic effusion, and was tapped several times Before the first tapping you may recollect that there was distinct vocal vibration at the lower and back part of the affected side of the chest. I removed twenty-five ounces of fluid. Strange to say, we never had any return of the vibration throughout the progress of the case. The fluid collected and re-collected, and we removed it on three or four occasions.

I think that possibly we may account for the persistence of vocal fremitus in some of these cases of pleuritic effusion by the existence of adhesions of the lung to some parts of the chest-wall.

Whenever pleuritic effusion is great there is *displacement of viscera*. The heart is often found bearing to the right of the sternum when the effusion is on the left side, and this displacement is great where the effusion has been rapid. There are also displacements from the diapharm being pushed down. But, independently of the fact that displacements may be due to the presence of solid matter in the chest, it frequently happens that although there is a good deal of fluid in the pleura, there is but little visceral displacement. In the first place the heart may be so connected with the chest-walls by adhesion that it cannot be displaced except to a slight extent; and further, in the more chronic cases, the lung yields to the pressure of the fluid, collapses, and thus leaves a large space for the fluid. The displacement of viscera may therefore be much less than you would expect from the quantity of fluid, which after operation, you find has existed.

Again, you must not always expect to meet with any decided increase in *the size of the affected side*, or a *bulging of the intercostal spaces*. Setting aside that the fact that measurements are not always trustworthy, it is undoubtedly true that in adults effusion may be very great and yet there may be no increase, as shown by the tape, in the size of the affected side, as compared with the opposite one. In the more yielding chests of children it is otherwise, and a notable increase is more frequently met with. Doubtless in most cases, if you watch them from the beginning, having taking the measurement before effusion you will find an increase in the size of the affected side. But what I wish to impress on you is this, that in the more chronic cases the side of the effusion often measures less than the opposite side. As an instance, there is the case which you have seen in No. 10 ward. In this man, who was the subject of extensive empyema of the left side, the measurements before tapping were as follows: Right side, 1 ft. $5\frac{3}{4}$ in.: left side, 1 ft. 5 in. We drew off 50 oz. of pus from the pleural cavity.

Now it is very probable that the measurement of the left side, were greater than in health, before the effusion took place; but the left lung being crippled, the right had taken on increased action, and had distended that side of the chest beyond the normal.

Further, although the intercostal spaces are at times altered in their appearance, becoming more or less convex, yet extensive effusion may exist in adults without any such change taking place.

It is scarcely necessary for me to allude to *ægophony* as a sign of pleuritic effusion. I look upon it as a mear fancy sign, being generally absent where there is any difficuly of diagnosis.

I have thus endeavoured to deal with some of the difficulties which you meet with in the diagnosis of pleuritic effusion, and whilst I admit that in the majority of cases the diagnosis is easy, I venture to say that in others it is very difficult; indeed, I think in some instances it is impossible to say positively whether fluid is present without making an exploratory puncture, and in all cases of doubt, where the propriety of tapping the chest is in question, no decided opinion should be pronounced until an aspirator-tube has been introduced. But I must say a few words about this preliminery exploration. Simple as it may appear, easily as it is accomplished, and usually attended in hospital practice with but little trouble, it is far less simple amongst private patients. It becomes, in fact, magnified into an "operation," and should no fluid be withdrawn the confidence of the patient is not increased in the Physician. Therefore it is well to weigh carefully every feature of a case before introducing even the finest canula. I believe, however, that no harm is done by the use of these tubes, even if a solid lung, or solid tumour, or even a healthy viscus is punctured. You need not therefore ha e any apbrehension on that score.

But I must tell you that when there is a good deal of fluid in the pleura, one or even two punctures may fail to withdraw any of it. You may possibly punctuate at a spot where there are adhesions; and, again, you may find that even when there is a pure serous effusion, such as you would think ought to flow through a canula, nothing will follow the introduction of the tube unless the exhausting syringe is used. I had under my care a man who, having had empyema of the right side had symptoms of pleurisy on the left. On examination I diagnosed the existence of effusion. I introduced a fine aspirator-canula, and I felt that I had pressed the instrument into a cavity, but no fluid oozed out. I withdrew the canula to see if it was plugged, but it was free. I reintroduced it, but still there was no fluid. The aspirator was applied, and twenty ounces of clear serum withdrawn, Sometimes from

the extreme thickness of the thoracic walls it is necessary to pass the canula very deeply before you feel that you have reached the cavity of the pleura. You may recollect the case of the man N——who was under my care in No. 10 ward. He had been previously, tapped for empyema, and he had the signs of a re-collection of the fluid. I introduced a canula into the back of the chest. I felt the instrument entering a soft substance after having passed some distance through the chest-walls. I moved the canula about, but clearly it was not in the pleural cavity. Had I made a mistake? Had I punctured a solid lung? The canula was already buried nearly two inches in the chest-walls. I pushed it further, and had the satisfaction of finding that it entered a cavity. I drew off forty-five ounces of thick pus. When you puncture the chest, if nothing but blood or bloody matter exude, it is well to examine the contents of the canula under the microscope, for such examination may enable you to differentiate between a cancerous and some other tumour. At the same time, it must be borne in mind that a cancerous lung may be punctured half a dozen times without a cancerous portion being reached, and cancer may exist although only blood is drawn off.

What I have said as to the non-passage of fluid through a canula will teach you not to trust to the mere introduction of a grooved needle as means of diagnosis. Some physicians use the small syringe employed for hypodermic injections.

I now must pass on to say a few words about the treatment of pleuritic effusion, and my remarks will be confined chiefly to those effusions which are more or less chronic. As a matter of fact, acute primary pleurisy is a rare disease. Pleuritic inflammation is usually connected with some constitutional state, some constitutional vice, and is more or less secondary. In reference to the more chronic cases, the treatment I have found most useful for promoting absorption of the fluid is the internal administration of iodide of potassium with tonics, bark, etc. Iodide of iron may sometimes be given advantageously, and counter-irritation should be used. I prefer for this the application of iodine rather than blistering, but blistering is often useful, I recommend you however ,not to blister severely. I have seen very extensive effusions which had lasted for many weaks—even months—removed by this kind of treatment, and it is well, unless certain urgent symptoms are present, to give constitutional measures a fair trial before resorting to tapping. I must tell you that I have no faith in the power of mercury to produce absorption of these effusions, and I am not in the habit of prescribing it. I think it is important to keep up the strength of patients for there is a far greater probability of the fluid being absorbed when they are strong, than when they are weak, and therefore good diet should be given with tonics, and even wine, whilst the special remedies are administered.

The last points I wish to refer you to are the propriety of tapping in these affections, and the period when the operation should be resorted to.

There can be no doubt that many cases of extensive pleuritic effusion have been lost from the operation of tapping having been either too long delayed or not performed. When the effusion is great there is danger of fatal syncope or fatal dyspnœa; and one or other of these may occur, although there does not appear to be any serious interference with the breathing, especially if the patient is somewhat advanced in years or debilitated. The danger of delay is well illustrated by many cases recorded by Trousseau and others. Let me refer to one. A patient was under my care some years ago in the Northern Hospital, with pleuritic effusion, I was trying general measures, intending to tap in a day or two if there were no improvement. One morning the man was seized with a sudden attack of syncope and died. A large quantity of fluid was found in the chest.

Now as to the time at which you should tap pleuritic effusion. I think you should tap in all cases, *of whatever duration*, whether acute or chronic, where the accumlation of fluid compromises aspiration, and especially if there have been any sudden attacks of dyspnœa. Again, wherever an extensive effusion has lasted some weeks, and shows no signs of diminution from general treatment, tapping should be resorted to whether dyspnœa is present or not. It is not necessary to remove the whole of the fluid, indeed it is better not to do so if the effusion is large, for reasons which I will mention presently. The removal of a portion of the fluid usually has the desired affect, and seems to stimulate the process of absorption of the remainder, and to cause the general measures to act with greater success. There is one rule you should always observe. You will find that patients, after a certain amount of fluid has been withdrawn, will often complain of a sensation of constriction across the chest or epigastrium, or of pain. Under either of these circumstances the operation should be at once stopped.

As regards the site for tapping I prefer, under ordinary circumstances, that recommended by Bowditch. The rule is to find the inferior limit of the sound lung behind, and to tap two inches higher than this on the pleuritic side, in a line perpendicular from the inferior angle of the scapula.

With ordinary care, and especially by using the aspirator, no air need enter the chest in the operation.

I have never in my own practice, and I have

new tapped several times without seeing any bad results from the operation, and this is the general experience; but still some instances are recorded where death has followed very soon after tapping, probably either from syncope or from the presence of clots in the pulmonary vessels. One such case occured in this hospital. A considerable quantity of serous fluid had been drawn off, from a man, and he was left apparently well. In the course of about half an hour, however he was dead. Whilst therefore I consider the operation essentially safe, it is well to bear in mind that it is not always unattended with danger; and in order to avoid as much as possible all risks, I advise you to draw off this fluid, especially when it is serous, by a small canal, and not to take away too much at once; rather, in fact, to repeat the operation, if necessary, than disturb too much the existing relations of the lung.

In the treatment of empyema there are two methods which you may adopt. First, the treatment by constant drainage through a tube introduced into the chest; and secondly, the treatment by repeated tappings. I have seen both these methods succeed but I must defer the consideration of this subject to another lecture—*Lancet*, Feb. 5 1876.

LOCAL USE OF BROMIDE OF POTASSIUM.

By Martin F. Coomes, M. D., Assistant to the Chair of Opthalmology and Otology in the Hospital College of Medicine.

The bromide of potassium, in substance or saturated solution, applied to living muscular tissue produces paralysis. The same effects are produced when it is applied to a nerve trunk, or injected into an artery; that is, the muscles supplied by the nerve or artery which the drug has acted in or upon, will be paralyzed.

Applied to mucous surfaces it is a local anæsthetic, although this effect is secondary unless used in a weak solution, say ten or fifteen grains to the ounce of water. The action of the bromide when applied to mucous surfaces, in substance or saturated solution, resembles that of caustic. Its effect, upon mucous surfaces are not visible like those of an ordinary caustic. It does not whiten the tissues, nor is its application painless, as is the case with many caustics. When applied to the schneiderian membrane or palpebral conjunctiva the pain is severe and of a burning character. The larynx and fauces are more tolerant to its action than the eye or nose, but the pain is similar in being associated with heat. The duration of the pain is never more than a few seconds. Applied to congested mucous surfaces it disgorges the distended vessels and increases the secretive action of the mucous follicles.

In papillary ophthalmia, commonly called "granular lids," the results of its action are similar to those obtained from the use of the muriate of ammonia. It reduces the hypertrophy, increases the amount of secretion, and allays pain. Its anæsthetic properties alone give it an advantage over the ammonia.

In the treatment of nasal catarrh, where there i dry condition of the membrane, the bromide, in powder or saturated solution, is an agent of great value. Where there is hypertrophy of the membrane lining the nasal cavaties, with an insufficient amount of the normal secretions, a condition met with in proliferous inflammations of the membrane, insufflations of the powdered bromide or injections of the saturated solution produce excellent results. By its use the secretions of the membrane are increased, congestion lessened, and a marked reduction in the hypertrophied tissues. Its immediate effects in these cases of proliferous inflammation of the nasal cavities is to relieve the patient of that sense of "*stuffiness*" which is most always complained of.

SALICINE IN OTORRHŒA.

By E. H. Jackson, M.D., of Lancaster, O.

Every physician is aware that the success attending the treatment of ulceration of the ears, or of chronic otorrhœa, is not the most flattering, varied as the resources may be. With myself anything but a justifiable result in most cases was obtained, until I chanced to adopt salicine and calcined magnesia in combination. To the former of these I attribute a curative power, though the latter is an excellent therapeutical adjuvant.

My experience with these remedies has been considerable, and I have yet to see the first case devoid of benefit. Of course there are some ear cases (as in all other classes of diseases) that cannot be relieved by any remedies so-called, but I am persuaded that by these means they are made to decrease in numbers. My method of treatment is as follows :—Ascertain the difficulty, its extent, nature, and state, either by natural or artificial examination, preferably the latter, *i. e.*, by the otoscope, speculum (Wilde's), mirror, etc. By these means you are better able to begin treatment intelligently. Prior to each examination and application, syringe the ear well with tepid water; this may be soapy or clear; it should be soft water. Exercise care in this, as there is danger in undue pressure of the water upon the ear as it leaves the syringe. Place the syringe so that regurgitation may be unobstructed, and yet so that the water may freely reach the interior. After the ear is thoroughly cleansed and a speculum adjusted, blow into it through a quill.—

R. Salicine,	gr.ij
Cal. magnesiæ,	gr.iv.

and insert a small piece of cotton. Should the discharge be excessively offensive, the cotton can be wet with chlorinated soda which will tend to allay the fetor. This process should be renewed every two or three days, observing well the effect, and varying the proportions of the medicine as demanded. In general, constitutional treatment is unnecessary, unless the otorrhœa depends on some dyserasia. Much good, in the above procedure, attends use of the water injections, but it is only a modicum compared with the salicine and magnesia.

A CLINICAL LECTURE UPON CHOREA.

Delivered at Long Island Hospital Medical College. By Allan McLane Hamilton, M. D. (Reported by D. James H Shorter.

Gentlemen :—It will be my pleasure to say a few words to you to-day in regard to a very common nervous affection of childhood. I allude to chorea, which is a disease you will constantly meet when you leave here. I may safely say that two-thirds of the convulsive neurosis of children are designated by this term. You are doubtless familiar with the appearance of the little patients, but to illustrate my remarks more clearly, I have brought before you two boys, and I want you to examine them closely They are both badly nourished children, delicate and pale. You will notice the dark, straight hair, thin lips and melancholy expression upon their faces: their brows are knitted, and their eyes sunken. These things strongly indicate a condition known as the *nervous diatheses*. It is among patients of this kind that we find nervous disease. I have seen a great many cases of chorea, but do not think that more than a tenth part of the number were of the blond type: but nearly all of them possesed the dirty white complexion, cold hands, and rough skin which is accompanied by a phosphatic condition of the urine. Chorea, as the text-books tell us, is a convulsive affection without loss of consciousness, affecting generally certain groups of muscles, perhaps one half of the body; attended sometimes by paresis, rarely by loss of sensation, and confined nearly always to childhood. It is comparatively rare after the fourteenth or fifteenth year, and is generally curable.

In adult life, we find it to assume various unusual forms. The patients may roll over and over on the floor, spin like tops,or there may be paralysis with contractions. It is then usually the continuation of some previous attack, dating from early life. I purpose to day to speak more particularly of this neurosis among children. We are told by various writers that it is confined to the period between the third and fourteenth years, although certain authors, Watson among them, limit the time by the first and second dentitions. Dr. Hillier, of the Children's Hospital, Great Ormond Street, has given a table, which is referred to by Radcliffe in Russell Reynold's System of Medicine. Of 422 cases at the above institution, 104 were between the ages ten and twelve. Girls seem more often affected than boys, for what reason I cannot say, except that it may be the more delicate organization of the former and the preparative changes going on before menstruation.

You will form a better idea of the disease if I relate a case. The patient, a boy of ten years, who attends school, becomes irritable, loses appetite, and does not care to go out and play with his fellows. He becomes pale and thin, and sits by himself. In a little while some movement of the hand or fingers, some twitchingof the face, or dragging of one foot, when he walks, attracts the attention of parent or teacher, He may be punished, with the idea that such movements are the result of bad habits or viciousness, but it does no good, but probably increases the trouble. These jactitations cease at night, when he rests uneasily, and is disturbed by bad dreams. This is the condition you will find the patient in. What is the course of the disease? If you don't treat him properly, or if he is neglected, it will not be long before the convulsive movements become general. The feet may drag along as if he was paralyzed, and so he sometimes is, for the condition is a gradual one. He will be unable to button his clothing, or attend to his little wants. I have a patient under my treatment at present, who presents a condition which is not uncommon, but I have not seen it mentioned in the text-books as it should be. I allude to the involvement of the vocal cords, and the aphonia which may result. There are other defects of articulation, which arise from an incoordination of the lips and tongue. When the case reaches this point, we may consider the condition a troublesome one. Now gentlemen, I wish to allude to the character of the convulsive movements, and I begin by telling you that they are always *clonic* You know that the two great varieties of convulsions are *clonic* and *tonic*, and I consider these terms simply clinical expressions, for it was a great matter of doubt whether there is such a *physiological* condition as a *tonic* contraction. A muscle in tonic contraction presents the condition shown by the electronic muscle, and though I may be bold in making a rash statement, I consider such a tonic or tetanic state simply a *very* rapid contraction of the muscular fibrillæ, and the rigid contraction of the limb a gross appearance. I think that the experiment with the tuning-fork will substantiate my assertion. We will, however, use the expressions *clonic* and *tonic* in their clinical sense to distinguish the convulsions. These contractions of the muscles in chorea are clonic; that is to say, there are intermissions of rest between the contractions. They are not increased by an effort of the will to stop them, as is the case in sclerosis, where the tremors are exaggerated, by any attempt of the individual to control them. In certain cases, however, there are exceptions to this rule, and I have often been led to suppose that chorea might be divided into varieties, viz.: one, in which the movements are increased with the exercise of the will, the other, when they are most violent in a state of rest.* The movements of the hands are characteristic, I think. There is a prehensile movement of the fingers and a rubbing of the ball of the thumb and ends of the fingers. There is swinging of the arm, and a shrugging of the shoulder, as if the patient had on large, or uncomfortable underclothing.

A little point that may, perhaps, interest you, and I only speak of it because it is unique: I allude to the habit which these little patients have of rubbing the seam of the trousers' leg by the hand which is affected, for these movements often go on most actively when the arm hangs by the side, and when

* In a recent conversation with my friend Dr. S. Weir Mitchell, he remarked that he had often recognized the necessity for such a division.

the attention is not directed to it. In other diseases, just such "little straws" will give you a serviceable hint once in a while. Take for instance, commencing paresis of any kind of the lower limbs, If you look at the tip of the shoe you will find the sole worn down on one side of the body. In locomotor ataxia you will discover a reduction of the heel When these little patients are worried or embarrassed the movements are greatly increased. and you must bear this in mind in your subsequent management of the case. The urine is generally neutral, or else it contains dense clouds of the phosphates. It is passed in the majority of cases in great quantities.

Now, I wish to say a word about the etiology, It is the general opinion that chorea is nearly always associated with cardiac or rheumatic troubles. Romberg, Huges and West, besides many others, have so decided; and when we consider the pathology of the disease it will appear to us very reasonable. Of 104 cases of chorea at Guy's Hoapital, but 15 of the number were free from any indication of cardiac or rheumatic difficulties.

It often follows scarlatina or other zymotic febriculæ, or takes its origin from an attack of acute rheumatism. The oldest of these boys first went through scarlet fever with kidney complications, which were unusually severe. The disease may result, and generally does, from some directly exciting cause, such as over-study, bad air, or food, or sudden fright. My recent investigations in regard to the occurrence of the disease among school children revealed the astounding fact, that over 20 per cent of young school children of the public school of New York were affected with choretic affections of greater or less gravity. West expresses it as his opinion, that over-study is a common cause, and my investigations more than prove this. I will allude, *en passant*, to a cause which is often overlooked. I mean want of exercise, and eating between meals. The confectioner is one of the worst enemies of the practitioner who treats nervous disease.

In regard to the pathology. I can only say, that a great number of observers believe the disease to be a functional, one, and few take the view which I believe to be the right one, viz', that the disease is organic. Hughlings Jackson, an able investigator, considers the lesions to be located in the corpus striatum, when small thrombi plug up the minute vessels. The microscope has proved this. Some writers have raised the question in regard to the existence of the hemi-chorea on the same side of the body as that of the brain where the lesion is found, and contend that there must be crossed action. Broadbent opposes Hughlings Jackson to some extent. Now it is easy to see how these plugs may come from the heart. A condition of this organ has been witnessed by some observers, where fibrinous matter was adherent to the chordeæ tendiæ and chordæ columnæ. These little shreds may be detached and carried up in the circulation. They are really small emboli. As to the inconsistency of the hemi-chorea occurring on the same side as the lesion, I do not think it is at all impossible. Dupuy and Brown Séquard have made experiments which prove that such a condition of affairs may exist—and I have myself done the same thing. Since my experiments, I have heard of a case, related by Dr. Walter Hay, of Chicago, in which post- mortem examination revealed a cerebral hemmorhage on the side of the hemiplegia. I have before said, that clonic convulsions are those of the disease under consideration. Now, I wish to tell you, that this variety of convulsion, like tremor, is due to an interruption of nervous discharges, and a point of irritation at the seat of origin of motor impulses It is very probable that there is trouble also in the nerve trunks, Ellischer has confirmed this in describing the degeneration of certain nerve-fibres in a case of chorea that recently died from some intercurrent disease. Schmidt calls attention to an explanation he gives. The origin of the neurosis, he says, springs from anæmia in the first place, and, secondarily, spinal irritation. which he suggests is symptomatized by the painful points which are found in the spinal column, It is undoubtedly a sensorimotor disturbance, due to insufficient nourishment of nerve-tissue; and that is enough for us to know.

Fatal cases of chorea are rare. Hughes and Bastin have both collected cases, most of which presented extensive changes in the nervous substance Lately, Ellischer has given us an account of a most interesting observation. The vascular changes in the brain were marked, the walls of the vessels being clogged, and the surface covered by hard granules. In certain places the calibre of the vessels was narrowed, and there was some accumulation of blood-corpuscles, and consequent effusion of the watery parts of the blood. Some of the vessels contained coagula. The connective tissue about these vessels was thickened and increased in size, and contained yellow pigment and granulated ulcers. The large ganglionic cells in the brain were filled with pigment, and the cell contents much changed. Sections of motor nerves exhibited red patches, and destruction of nerve-fibres. These changes show then great vascular alteration, and degeneration of normal nerve-tissue.

The PROGNOSIS is generally good. A case of acute chorea—and I consider it to be one that has not progressed more than a month or two—should get well with proper treatment in about the same length of time; but you will generally meet with the chronic type of the disease, and will then have your hands full— and will be lucky if a cure is wrought in five or six months.

These cases rarely die from the disease itself, but either outgrow it, or end their days by some other disease.

In the matter of diagnosis I have very little to say. I do not think chorea can be confounded with any other neurosis. You will have to make the differential diagnosis sometimes between it and tremors of various kinds—but there will be no trouble—the movements are characteristic. What I have already said about sclerosis you must remember. You must also know that certain irregular movements may be

simply bad habits, also that certain limited convulsive twichings are found in connection with ascarides

It is important and difficult sometimes to make a diagnosis when chorea follows hemiplegia, or is associated with other organic neurosis A condition called *athocotosis* by some writers I believe to be a choretic state, and various neurosis of the convulsive kind, now designated by different titles, I am sure are nothing but varieties of chorea.

A peculiar form of hemiporesis must be differently situated from the hemiplegia, cerebral hemorrhage or other brain lesions; but these are uncommon affections, and slow to disappear, while the hemiparesis of chorea is amendable to treatment and follows the choretic movements, and passes away in a comparatively short time. I wish to tell you of an interesting case, with a peculiar complication, which might mislead one in diagnosis. The patient, a boy of ten years, was brought to me by his father for treatment, after having been seen by many practitioners, who did not agree in regard to his condition. I saw that his movements were choretic Questioning revealed the fact, that he had never been a strong child, but had always been disposed to nervous troubles; even the exanthematous fevers, which, like other children, he had had, were generally connected with stupor, and other evidence of susceptibility of the nervous substance to blood poison. Never had any rheumatic nor cardiac affections, and I could hear nothing to indicate valvular trouble. The heart sounds were sharp and quick however. Four years ago he began to decline became weak and anæmic, was irritable, moody, and bad tempered. His appetite was capricious, and he preferred candy and sweets to more solid food. In the summer of 1872 the movements of the hands and arms began, and soon became general. His rest was uncomfortable, and he started up in his sleep and cried out. When I saw him four months ago he was a pitiable object. His movements were general. He was unable to hold anything, and was powerless to perform any voluntary action, except those of a general kind. He could not unbutton his clothing nor put on his cap. His mother even had difficulty in making him walk.

Variety of Movement.—Head was violently agitated, there being contractions of the sterno-cleido mastoideus. He "sucked his cheeks," and pursed up his mouth, and smacked his lips. Other facial contortions were violent. He winked spasmodically and there was constant motion of the eyeballs.

The arms were in constant motion, but the right was not affected so much as the left. The right arm and hand were slightly paretic, and he was able to force the column of fluid in the fluid dynamometer* up to 16°, which is equal to 15 lbs. pressure to the square inch. The left forced it up to 18°.

The legs.— The right leg was also slightly paretic, The toe of the shoe was worn down to some degree, although the walk was not noticeably affected.

There was an uneasy rolling of the pelvis when he sat down, and the legs were not entirely under the control of the patient. There was pain in the wrists and ankles. Under proper management of his diet he gradually improved, at the last visit he was nearly well. I noticed then for the first time the following peculiar state of affairs; When sitting in front of me I told him to rise his hands, one after the other. The right hand he raised promptly, but the left he could not, unless he took hold of the wrist with the other hand, and lifted it up. This condition struck me as remarkable, particularly as he had to repeat the process of aiding with the right hand. Several neurosis might explain the condition, however, and proceeded to eliminate them in the diagnosis.

1st. *Paralysis.*—The left hand and forearm might be paretic. There was no loss of electro-muscular contractility, however, but, if anything, it was increased. The muscular power, tested by the dynamometer, was found to be even better than in the other hand. There was no atrophy. With these facts in view, it seemed improbable that this should be the cause.

It was found that when the other hand was held down, the boy was then able to lift his left hand unassisted, and even to raise a dumb-bell weighing 10 lbs., but so soon as the other hand was released he was unable to repeat it.

2d. *Habit*—To determine whether this was the result of any bad habit, I ascertained from the father that his son had never used one hand to lift the other till a few week ago.

3d. *Central changes.*—I have been forced to accept the Theory that there is some central trouble, or else some change in the nerve itself affecting its conductivity, although the absence of sensory or motor disturbance (the limb being either hyperæsthetic or anæsthetic, and there being no loss of motor power, but, on the contrary, greater muscular excitability) would contradict this. As we know, one of the first signs of certain central trouble is this very marked electro-muscular contractility. The only hope for diagnosis rests with the advance of time when, if central disease exists, it will manifest itself by other symptoms. If this is not the cause of the disease it is very probable that it may be hysterical.

We will now speak of *treatment*, and this, perhaps is of more importance than anything else of which I have spoken, and in giving a list of drugs I will exclude a great many remedies that have been used with indifferent success, and only allude to a few, in the order I believe them to stand in point of efficacy

Internal remedies,	Strychnia. Arsenic. Iron in its various forms (bromide, carbonate, etc.). Phosphorus.

* Described in Psychological and Medico-Legal Journal April, 1875.

Extrnal remedies.
- Cold to spine.
  - Ice
  - Ether spray.
  - Cold douche.
- Russian or Turkish baths.
- Salt baths

Rest, diet, fresh air

Some of these may be combined with good effect, The plan of treatment, generally employ is the following; Should the child be "run down," as is generally the case, I begin with some preparation of iron, and administer at the same time cod liver oil, As regards special treatment, I find strychnine serviceable carried up to a point where, stiffness of the muscles is arrived at. Next to this I consider arsenic to stand, It must be in large doses. You will occeasionally find that digestive troubles are produced very quickly by this drug, and then strychnia may be substituted. Cold to the spine cannot be over—estimated as a plan of treatment. You may either use the ether spray, which was first suggested by Subetski, of Warsaw, in 1866, or apply ice bags every day allowing them to stay on about ten minutes. Perrond, who has used the ether spray, makes application from four to eight minutes in duration every day. Of thirty-five cases I have treated in this way, (I mean with the ether spray) from fifteen to twenty applications produced permanent benifit, and here I would say that the spray should be directed to the upper part of the cord, over the upper cervical vertebræ. Eserine has been lately recommended and Bouchut has given the results of 438 cases, 205 who took it in pilular form, and 232 hypodermically. Eserine is the alkaloid of Calabur bean. The average dose was from two to five milligrammes. He obtained temporary benifit, which seemed to wear off; but when the drug was repeatedly administered he accomplished many cures. He reports twenty-three cures, by an average of seven injections. It is a dangerous remedy, however, and produces severe gastric symptoms.

The salts of zinc have occasionally proved valueable in cases of this disease, but I prefer the remedies I have mentioned. Conium is occasionally efficacious, but its effects are temporary. I must say, before going further, that I have found phosphorus, with cod-liver oil, to be a most valuable curative agent and in cases where everything else failed, it has succeeded. This seems reasonable, when we consider how much impaired must be the nutrition of the nervous matter. Now, gentlemen, you will find instances where nothing does good; Put them in a dark room, and keep them perfectly quiet. You will be often astonished at the result. Wier Mitchell has written of the value of this treatment, and I refer you to his lecture. There are little things that must be watched. The diet, above all things should be regulated with judgment. Plenty of fresh air and sleep come next, and absolute mental rest must be enforced. The school books and the school room are to be parted from, and agreable diversions planned. An excellent auxiliary to your medication is the salt bath. A handful of rock salt in the water and energetic use of the rough towel, will infuse a tone and vigor that will soon become apparent. In conclusion, I must tell you that decided medication is useless in these patients when their personal habits are not looked after; but if you will start them upon the right track, and afterwards give them the medicines I have named, you will have the satisfaction of generally curing your case, and covering yourself with glory, for the cure of chorea is considered by the friends of the patient to be a great triumph.

NEW YORK, *Jan*, 18, 1876.

THE CANADA MEDICAL RECORD

A Monthly Journal of Medicine and Surgery

EDITOR:

FRANCIS W. CAMPBELL, M.A., M.D. L.R.C.P., LOND

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MONTREAL, JUNE, 1876.

MICRO-PHOTOGRAPHS IN HISTOLOGY, NORMAL AND PATHOLOGICAL.

Messrs. J. H. Coates and Co., of 822 Chesnut street, Philadelphia, announce the commencement of a publication, with the above name, under the direction of Carl Seiler, M.D., assisted by J. Gibbons Hunt, M.D., and Joseph G. Richardson, M.D.

This publication is intended to replace the microscope, as far as is possible, for those physicians who have neither opportunity nor leisure to make observations with the instrument for themselves; and also to furnish microscopists, for comparison, correct representations of typical specimens in the domain of normal and pathological histology.

As the pictures are obtained directly from the microscopic objects by means of photography, and printed from the negative by a reliable mechanical process, they have the great advantage of being faithful copies of the pictures formed by the lens, and there is nothing produced that is not actually visible in the instrument, thus avoiding the diagramatic character and the subjective coloring which is so frequently found in drawings made by means of the camera lucida. In fact, the illustrations used in the lecture-room and found in books, are idealized so much as rarely to give an exact impression of the specimen as it really exists.

The photographs are to be carefully prepared, and will be accompanied by a few pages of text, fully describing each plate, indicating the particular points of interest, and showing the connection and analogy of the different specimens. The text, prepared under the supervision of Drs. Richardson and Hunt, will be strictly descriptive and explanatory, dealing only in facts, and setting forth no unacknowledged theories.

It is purposed to give in each monthly issue pictures of at least one pathological and three normal specimens, to illustrate the differences between healthy and diseased structures.

The work will be issued in monthly numbers, each containing at least four plates, with descriptive letter-press; twelve numbers to form a volume. The contents of the first three numbers will be as follows:

No. 1 (April).—Plate I, Section of human skin transversly through the hair-bulbs. Plate II, Epithelioma of lower lip (pathological). Plate III, pavement epithelium, from a triton. Plate IV, Endothelium, from diaphragm of guinea pig.

No. 2 (May).—Plate V, Elastic connective tissue. Plate VI. Scirrhus of mammary gland. (pathological). Plate VII, Non-elastic tissue from omentum of a cat. Plate VIII, Connective tissue compuscles, from cornea of frog.

No. 3 (June).—Plate IX, Section of fœtal bone. Plate X, Enchondroma (pathological). Plate XI, Hayaline cartilage. Plate XII, Transverse section of bone, injected.

The high scientific standing of the medical gentlemen connected with the publication, is sufficient guarantee of its value to the profession at large. It is the only publication of its kind.

The plates and letter-press printed on fine toned paper. Size of the page, 9 x 11 inches. Each number in a neat cover. The price is, of separate numbers, 60 cents. Sent postpaid by the publishers at $6.00 per annum.

A PHARMACEUTICAL FEAST.

The Glasgow druggists had a festival recently, and a local journal, the Bailie, gives the following amusing burlesque of the proceedings:—

"The members were not exactly in court dress, but in the fashion prevalent in the days of our grannies. Their heads were liberally powdered with magnesia, and their faces adorned with tiny bits of court plaster. The night was wet and boisterous, and on entering the spacious hall each guest was considerately presented with a warm cup of salts and senna. Some, however, preferred sulphur and treacle, while others took to Indian pink and cream of tartar. All the seats were tastefully decorated with Allcock's porous plasters, which had the effect of keeping the occupants cool and comforable throughout the evening. Instead of the ordinary table napkin, a piece of sticking-plaster was neatly substituted, and so folded as not to destroy its adhesive properties, with a view to its being made useful afterwards, either as a gift to the Convalescent Home or being sold to the Infirmary at cost price. The soups were served up in mortars, and dished with pestles; spatulas did duty for fish knives, scoops for spoons, and marble slabs for plates. Teetotalers had as many seidlitz powders as they could consume. Those of a more convivial nature, and they predominated, were freely supplied with steel and quinine wines of the rarest vintages. Jalap sauce and cantharides mustard added piquancy to the viands, and altogether the *menu* did ample credit to the established fame of the purveyor. A bust of Galen, with the time-honored symbol of the serpent twining round his temples, surmounted the president's chair. The walls were profusely ornamented with chest protectors, sponges, syringes, trusses, and other appropriate paraphernalia.

"Previous to sitting down to table, the company joined in singing 'Few are thy days, and full of woe.' After each course the countenance of every one looked so unspeakably wretched that the waiters—the oldest and most grave-looking saulies in town—were obliged to turn their backs to hide their gruesome smiles.

"When the cloth was removed, the chairman in a few well-chosen words alluded to the prosperity of the trade (A voice: 'Profession') and particularly to the foresight displayed a year or two ago, when coals were dear, in doubling their charges for prescriptions and medicines generally, a movement in the right direction, which had raised their profits from 100 to 300 and 400 per cent. 'And why not?' he triumphantly asked. 'Were they not benefactors? The public could not live without; they could not even die without them.'

"Songs and recitations followed, the celebrated gravediggers' dialogue in 'Hamlet,' 'Death and Dr. Hornbrook,' 'We're wearin' awa, Jean,' and other lively pieces being feelingly rendered by members of the company.

"An assembly wound up the entertainment, the chairman leading off with St. Vitus's Dance. After fortifying themselves with cork soles, chest protectors, warm plasters, respirators and jugs of hot gruel, each took his way and hurried home.

OBITUARY.

MR. SOUTHAM, F.R.C.S.

We regret to hear of the death of the well-known surgeon, Mr. George Southam, which occurred yesterday forenoon at his residence, at Pendleton. Mr. Southam had suffered a long time from disease of the heart, which prevented him, since May last from attending to professional engagements. Mr. Southam was born in Manchester, December 3rd, 1815, and received his medical Education in this city. He also studied at University College, London, and Paris. He was elected a member of the Royal College of Surgeons, England, in 1838, Fellow in 1853, and member of the Council in 1873. He was President of the Council of the British Medical Association from 1872 to 1875; and, until the time of his death, was one of the vice-presidents. Until his retirement recently, owing to ill health, he was senior surgeon to the Royal Infirmary, and also professor of surgery at Owens College. He was a Fellow of the Royal Medico-Chirurgical Society of London. Mr. Southam was the writer of able papers—including some on "Cancer and its Treatment"—in medical journals. His contributions were also included in the transactions of medical societies. In those of the Medico-Chirurgical Society are to be found his papers on "Elephantiasis," "Arterio-venous Aneurism of the Scalp," "Treatment of Aneurism by Pressure," and other surgical subjects. The life-long connection of Mr. Southam with this city and its medical institutions gave him a well-won place in public estimation, and the sense of his loss will be proportionately great.—*Manchester paper.*

We regret to have to announce the death of Dr. George Grenier, Editor of L'Union Medicale du Canada, published at Montreal, which took place on the 5th of June.

Sir William Wilde, the celebrated Irish occulist and aurist, died at Dublin, on the 19th of April, from an attack of bronchitis. He was an enthusiast in the particular portion of Surgical Science to which he devoted his life; he was also a noted antiquarian. His origin was an humble one, and he rose to the position he occupied from absolute merit.

Dr. John Erskine, formerly of Dunham, Q., but more lately of Ottawa, died in the latter city on the 28th of May, from phthisis. Dr. Erskine gave up active practice some few years ago owing to his failing health, but within the past year he again resumed it. Dr. Erskine was a graduate of McGill College, in fact was a member of the same graduating class (1860) as ourselves. He was a man of genial disposition, and was much esteemed.

SIR ASTLEY COOPER'S FEES.

The *Medical Press and Circular* gives the following extract from the diary of the late Mr. Mewburn:—"The following statement from the fee-book of Sir Astley Cooper is curious: 'My receipt for the first year was £5 5s.; for the second, £26; the third, £64; the fourth, £96; the fifth, £100; the sixth, £200; the seventh, £400; the eighth, £610; the ninth, £1,100. In 1815 Sir Astley made £21,000!! A Mr. Hyatt, an ancient merchant gave him £1,000 on recovery under his care; and Mr. Coles of Mincing Lane, for a long course of time, gave him £600 every Christmas."

PERSONAL.

We regret to learn that Dr. Cline, the assistant Surgeon of the Montreal General Hospital, is ill with Typhoid Fever. So far we are glad to learn, the indications are, that the attack will prove a light one.

Dr. McMillan (M.D., McGill College, 1860), formerly of Rigaud, Que., has removed to Montreal, and commenced practice.

Dr. Fredrick J. Austin, of Sherbrooke, was at the May meeting of the Governors of the College of Physicians and Surgeons of Lower Canada elected to fill the vacancy in the Governors from the district of St. Francis, caused by the death of the late Dr. Andrew W. Hamilton.

Dr. Majeau (M.D. Victoria) has commenced practice at Manchester, New Hampshire, U.S.

Dr. G. W. Campbell, Dean of McGill University Medical Faculty, arrived from Europe, by the Allan S. S. "Sarmatian," on the 22nd of May.

Dr. George Burnham, of Peterboro, Ont., and Dr. Donald Fraser of Shakspeare, Ont., received the membership of the Royal College of Surgeons of England, on the 13th and 19th April last, respectively.

Mr. Casey A. Wood, of Ottawa, passed his primary examination at Bishop's College the past Spring, went before the Ontario College of Physicians and Surgeons at its last meeting, and passed the primary examination. Mr. Wood is the first student from Bishop's College, to appear before the Ontario Board.

Drs. Trenholme and Wilkins having resigned their positions as attending physicians to the Montreal Dispensary, Drs. Wolfred Nelson and J. B. McConnell, have been elected to replace them.

Dr. Buller, M.R.C.S., Eng., has been appointed oculist to the Montreal General Hospital.

Mr. H. C. Fuller, student of medicine, has been appointed Curator of the Museum of the Medical Faculty, Bishop's College.

Dr. Marston, (M.D., McGill College, 1871,) has commenced practice in Montreal.

Dr. Botsford, of St. John, N. B., who has been seriously ill for several months, is, we are glad to know, so far recovered as to be able to get about.

MEDICAL ITEMS.

The Board of Trinity College, Dublin, have given their sanction to the establishment of a new degree in Midwifery which will carry the Letters M. A. O. (magister in arte obstetricâ) with it ——Dr Joseph Fayer, who has had long service with the army in India, and who accompanied the Prince of Wales on his Indian tour, has been created a Knight of the Star of India, ——Sixty one thousand, one hundred and seventy three persons were arrested in Scotland for drunkenness, for the year ending 30th June 1875 —so says a parliamentry return—Dr. W. B. Carpenter has been made a Companion of the Civil division of the Order of the Bath.—Dr. Warburton Begbie of Edinburgh, Scotland, died Feb. 25, age 50 years. He was the most deservedly popular Physician in Edinburgh and had an enormous consulting practice, to which he had entirely devoted himself the last few years of his life. He was also well known to the profession by his many able contributions to the current literature of the day.—Subjects were so scarce last session in Edinburgh that twenty dissecters were allotted to each body, instead of ten, as formerly.—A new school of medicine has been formed in Glasgow, Scotland in connection with the Royal Infirmary. Up to the last tow years the students both from the University and from Andersonian school attended the Royal Infirmary, but the removal of the University of Glasgow to the west end of the city, and the opening of the splendid new Western Hospital, which the University students attend, has deprived the old Hospital of its large class of students. Its directors have therefore established this new school, and its tickets will be accepted by the University as qualifying for graduation.—The new Western Hospital in Montreal is progressing rapidly, the ground floor has alreay been reached, and the masonry is being pushed for ward. The wet weather hindered its progress much in May.——The Toronto Eye and Ear Infirmery makes a good report for the past year. We hope soon to hear it has commenced a building for its occupancy.

THE PHILADELPHIA CENTENNIAL.

The Surgical Society of Ireland have appointed Mr. Tufnell, Dr. Rawdon MacNamara, Mr. Wm. Stokes, and Dr. Mapother, to represent it at the Centennial Congress in Philadelphia, in September.

CANADIAN MEDICAL ASSOCIATION.

The Annual meeting of the Canadian Medical Association will be held in Toronto on the 1st Wednesday in August. The *Canada Lancet* says arrangements will be made to give the members a proper reception by theToronto Profession.

THE HOTEL DIEU HOSPITAL.

We hear that in all probability the staff of attending Physicians to the Hotel Dieu Hospital will shortly be increased by the addition of four more English speaking Physicians. Dr. Hingston and Angus MacDonnel are already on the staff, representing the Anglo-Saxon element of the Catholic population.

BIRTHS.

In Toronto on the 17th May the wife of Dr. W. T. Aikins of a daughter.

In Toronto on the 25th May, the wife of Dr Temple, of a son.

In Toronto on the 24th May the wife of Dr. Fulton, of a daughter.

DIED.

In Montreal on the 29th May, Catherine Joseph, aged 66 years and three months, wife of Dr. A. H. David, Dean of the Medical Faculty of Bishops College.

Original Communications.

I. A Case of Excision of both Ovaries for Fibrous Tumor of the Uterus.

ALSO,

II. A Case of Excision of the left Ovary, for Chronic Oöphiritis.

By

E. H. TRENHOLME, M.D., Professor of Midwifery and Diseases of Women and Children, University of Bishop's College, Montreal; Fellow of the Obstetrical Society of London, England, &c., &c.

Read before the Medico-Chirurgical Society of Montreal, April 29, 1875.

Case I.—Mrs. L., the patient in this case, first consulted me on 30th December, 1874. She is 31 years of age, 13 years married, of dark complexion, an active intelligent lady, of French and Scotch extraction, born at Levis, Quebec.

She began to menstruate when 13 years old, and was always regular up to the last seven years. Present difficulty began in March, 1869, when a clear fluid escaped, per vaginum, followed about one hour afterward by severe pains in the womb, and the passage of a globular-shaped clot of blood. During the three following days she continued to pass small coagulæ. From this period up to the end of 1870, each monthly flow was marked by pain and passage of coagulæ and blood, when she expelled from the uterus a large firm clot, whitish in color, rough and flat on the one side, but smooth and convex on the other.

From 1870 to 1872, the pains and menorrhagia continued with increasing severity. The flow, when excessive, could always be controlled by the use of cold water injections. Between the menstrual periods the size of the congested organ could be much reduced by the use of cold water per vaginum.

In 1872 the patient applied to Dr. Jackson, of Quebec, for relief, and he divided the neck of the uterus laterally, with, however, but temporary relief.

In 1874 she consulted Dr. Adams, of Chicago, who diagnosed acute anteflexion, and, at the patient's urgent request, divided the neck antero-posteriorly with a considerable amount of relief. When making the incision, the tissues were found to be very firm and unyielding; and gave way, after division, with a noise sufficiently loud to be heard by those assisting at the operation. The relief afforded by this operation was very temporary, and within the past few months the menorrhagia has become very severe, and the uterine spasms intolerable. The pains are always most severe in the left groin. When once the blood escapes freely the pains cease. There has been no serious trouble in any other organ except the bladder, when, some time ago, for about nine months, the urine escaped by drops, being caused, (as she thinks,) by the free use of gin to relieve pain.

Present condition:—

Between the menstrual period the patient is free from suffering, looks well, and rapidly regains the flesh lost at those periods. Her average weight is 112 lbs., but she has weighed as much as 130 lbs. Before the flow, and during its continuance, the patient suffers so much and loses such quantities of blood, that she has frequently lost as much as 9 lbs. in weight in three days. By the time the flow has ceased, the patient looks pale, exhausted, and very anemic.

Her nervous, respiratory, nutritive, muscular, circulatory, and urinary systems, are all in good order. Menstruation occurs every four weeks and lasts three days. Within the last few months the flow and uterine tormina have greatly increased, as already stated.

Examination.—There is no tenderness over abdomen by the touch which detects a globular tumor in the centre of the abdomen, extending from the pubis to umbilicus. Per vaginum, can detect the tumor in brim of the pelvis, extending rather more to the right than the left side.

Sound.—This instrument causes some pain, and shews the depth of the cavity to be 4½ inches and directed somewhat to the left side. The sound had to be bent, as if dealing with acute anteflexion, before it could be introduced.

The congestion of the uterus begins five or six days before the flow appears. At first it is slight, but gradually increases in severity, till just before the flow, when it becomes perfectly intolerable. The patient has often said that death would be a welcome door of escape from her terrible agony.

As the use of tents were impossible, the diagnosis was arrived at from the evidences of sub-peritonea tumor given to the touch, and the sub-mucous or interstitial tumor, from the excessive flow of blood.

Diagnosis.—There are one or more fibroid tumors of the uterus. One probably sub-mucous and the other sub-peritoneal.

Progressive Symptoms and Treatment.—The monthly distress can be considerably mitigated by

attention to diet and exercise. Much walking just before the return. and a full diet, increase the pains and flow. The constitution of the patient is becoming enfeebled by her protracted sufferings. and her cheerful disposition, which has been buoyed up by the hope of reaching the end of her distress, is beginning to flag under her repeated disappointments. While her sufferings are greater her powers of recuperation are becoming less and less.

If the monthly life be divided into three periods. viz.: 1st. Period of suffering and menorrhagia. 2nd. Period of convalescence; and 3rd. Period of health. The first period, while not increased in length of time, is becoming more serious in intensity of pain and quantity of blood lost. The second period is becoming markedly prolonged and is encroaching with sure steps upon the period of health and the enjoyment of life. So much is this the case, that at no distant date this last named period must be obliterated, and the patient become a confirmed sufferer and invalid.

Treatment.—After dilating the cervix by incising the neck and sponge tents, to complete the diagnosis, I tried Dr. Greenhalgh's method of enucleation by means of the destruction of the tissue between the os and tumor. Caustic potash was applied for this purpose on 21st January, 1875, after division of the cervix by the bistoury. Two days after this the menses appeared without pain, for the first time in six years. On 26th January (five days afterwards) the flow ceased. There is no tenderness over the abdomen, and size of tumor much diminished, being about two inches less than before. From the border of despair my patient now believed herself entirely cured. I need hardly say there was not good ground for such hope, as the tumor remained, and must cause more trouble before it was removed, or her menses ceased.

The following monthly (February) came on with pains, but nothing like so severe as of old. The use of the knife and caustic gave relief now as it did also in March, after which the patient returned to her home, and passed the summer at the seaside.

On 1st September, 1875, patient returned to Montreal, as her last monthly had been accompanied by a great deal of pain and loss of blood. On 7th September the flow appeared with much suffering, the knife was again freely used with relief. Ten days after this (17th), when the patient had regained some strength, assisted by my friend, Dr. Kennedy, the patient being anæsthetized, the neck of the uterus was entirely divided with a sharp-pointed bistoury, cutting toward the canal. The surface of the tumor was also freely divided to the depth of $\frac{3}{4}$ of an inch and 3 inches long. The index and middle fingers were then forcibly introduced into the cavity of the uterus. to ascertain the position of the tumor, and, if possible, enucleate or extract it. Extraction was impossible, as the tumour was not encapsuled. Caustic potash was freely applied to the cut and separated surfaces. This operation was followed by considerable shock. The next day the patient was restless and had amnesia, followed by epileptoid convulsions. There were cerebral irritation, and contraction of the pupil of the right eye. Both Dr. Kennedy and myself felt assured that the shock and danger were greater than might be expected after ovariotomy. A good deal had been risked with the hope of securing enucleation and removal of the fibroid, and as all that could be done for the present had been done, the patient was placed upon ergot, and returned to her home.

This operation, like all the preceding ones, failed in affording permanent relief, and the patient returned once more to my care.

December 20th.—Menses commenced with slight pain, which became so severe the following three days as to require the knife once more. The prostration following the flow was great, and her return to health much impeded by an attack of dumb ague with severe neuralgic pains in head and face.

Being satisfied that my patient could not live much longer unless relieved, I determined, at her request, to excise both ovaries as soon as her health would warrant the operation.

I decided upon this operation as more safe than excision of the uterus, and hoped that, by removal of the ovaries the monthly flow would cease, and the tumor remain quiescent, as they often do, when patients reach the age of forty-five. I desired to make my thirty-two year old patient forty-five years of age, without waiting for father time to accomplish it.

Operation.—Although the patient was feeble, the near approach of the next menstrual period decided me to operate on 13th January, 1876, when I was ably assisted by my friend Dr. Wm. Fuller, when the patient was put under the influence of chloroform, and the anesthesia continued by ether.

The abdomen was opened to the extent of about 5 inches in the median line between the pubes and the umbilicus. The ovaries were deep down, and had not risen, as expected, into cavity of abdomen with the uterus and tumor. After some trouble the ovaries and fallopian tubes were successively brought

to view, ligated separately, divided with the scissors, and removed. The wound was closed by three deep carbolized hempen ligatures, and four superficial horse-hair sutures. The patient came out from the anesthetic in good condition. There was no vomiting. There was considerable pain up to 4 p.m., after which she was quiet till 7 p.m, when she slept for half an hour.

January 14th.—Passed a good night; slept most of the time, and at 5 a.m. passed 8 oz. urine.

During the day was troubled with pyrosis and a severe neuralgic pain down the left leg. There is also some escape of blood from the uterus. Removed the bandages and dressing. Found the wound united by first intention.

January 15th.—Passed a good night. Slept well. Flow continues freely. Every symptom favorable. During afternoon was troubled with wind in the bowels, although there was very little distention of the abdomen. Gave an enemeta, which brought away some flatus, but no feces. Passes urine freely.

January 16th.—Doing well. Flatus passed freely. Removed all the deep sutures. Sponged abdomen with warm water and changed all the bed linen. No trouble in bladder.

January 17th.—Patient feels very easy and well. Flatus escapes freely. Slight watery flow continues from uterus. Enjoyed some oyster soup.

January 18th.—All is well. Bowels moved this evening.

January 20th.—This is the eighth day since operation. Is a little feverish on account of catching cold during the night by kicking off the clothes while asleep. Ordered cincho-quina, which gave much relief.

January 23rd.—Somewhat restless last night from severe neuralgic pains in left groin and down sciatic nerve. All else doing well.

January 25th.—Moved from the bed to the sofa. Allowed to rise up for a short time.

January 26th.—Neuralgic pains troubled a good deal last night. There is a slight muco-sanguine flow from the uterus. Took a short drive in the sleigh which she enjoyed much.

From this date gained in strength, and was so well that she returned home on the second of February.

History since the removal of the ovaries:—

On 20th February, the patient writes: "I began to realize some fulness in the womb. I had no pains. On 22nd, in the evening, I felt a flush to my head; next morning, while at breakfast, felt a discharge without pains. It was blood, coagulated and soft, quantity about half a tumbler full." For three days following there was a slight discharge, accompanied by slight fever and pains in left groin and leg. These pains continued to trouble up to 2nd March, when she expelled a coagula of blood, after which, the bleeding ceased. Bleeding occurred again the following day, but was checked at once by cold water injections *per vaginum* and ice externally over the womb.

March 20th.—The menses appeared again to-day at their usual time, and continued to 24th. when they ceased. During the flow there was no pain, but the loss of blood made the patient very weak.

April 16th.—Slight pains and sensation of congestion of the uterus, followed by passage of small coagulæ and hemorrhage. This latter was promptly checked by the use of Savage's solution of iodine, alternately with solution of alum.

April 19th.—About a teaspoonful of blood again appeared, but the flow was finally stopped by the injections already mentioned. Since the last flow the patient has improved in health and flesh.

May 26th.—After waiting for six days, and no hemorrhage occurring, the patient took several miles of a walk, up and down some very steep hills, without bringing on any flow or causing any pain.

During the past few weeks she is gaining in flesh and strength, and writes very confidently of having obtained a perfect recovery, which now, at last, seems well assured.

REMARKS.

Any method of treating, successfully, intestitial or sub-peritoneal fibroids, short of excision of the uterus, is worthy of our best consideration.

The hope of being able to induce absorption of these growths has led to the employment of various remedial agents, but hitherto, unfortunately, with but little success.

The hypodermic injection of ergot has of late been much employed. From the action of this drug we can expect benefit only when these growths are situated under the mucous membrane. At best it is unreliable, and cannot be much trusted in even this last named variety of tumor. Time is an important factor in giving a prognosis in serious cases. When the patient is near her climaterie, and the tumor troublesome only at the monthly molimen, we know, from experience, after that period has been safely passed, there is frequently no further serious inconvenience. The case is much more hopeful when the tumor is not cystic, but of the simple fibroid character.

These facts induced me to hope that, in suitable cases, the removal of both ovaries would arrest menstruation, check the periodical congestion, allow the growth to remain quiescent, and cause no further trouble.

The operation just detailed, was performed with the object of testing this view. The fact that it has been successful inspires me with confidence to lay it before the profession as a hopeful method of dealing with these serious cases.

The fact that cases are upon record (some eight cases being related by my esteemed friend, Dr. Fordyce Barker), where menstruation has continued after excision of both ovaries, is not enough to my mind to deter from the operation.

There is need of careful observation as to the character of the flow in such cases. In the present instance the monthly flow was purely hemorrhagic, and would have been examined microscopically had it not ceased before opportunity permitted. I am very much inclined to doubt the presence of decidual debris in the flow, and deem the presence of the ovaries to be *necessary* to nidation and denidation. If this is so, such hemorrhages should be treated as if occurring in other situations and promptly checked by astringents. This form of treatment is not followed by bad results, such as would surely occur if the flow was menstrual.

Excision of the Ovary for Chronic Oöphiritis with Displacement.

Case II.—The patient in this case, from whom the left ovary was removed, is 28 years old, seven years married, and mother of two children, the younger of whom is very delicate. She began to menstruate when thirteen years old, and each flow has always been accompanied by pain. The patient is well-formed, of slight build, and feeble constitution.

The troubles for which she first consulted me (in December, 1875,) began shortly before her marriage, and have continued almost uninterruptedly up to the present time. There has always been dyspareunia, which occasionally has been so severe as to preclude sexual congress.

The patient has been treated by various medical men, for uterine disease, both locally and constitutionally, but without relief. For some years past there has been constant pain in the left groin, also, occasionally, severe pains running down the left leg. Every form of pessary has been used, but with no benefit, as their pressure could not be endured.

Present State.—The patient has an anxious expression of countenance indicative of prolonged suffering. The pains spoken of in the groin and down the leg are severe, and never absent. Muscles are imperfectly developed and soft. Cannot endure the fatigue consequent upon dressing, and therefore seldom walks or drives in the fresh air. Appetite is indifferent, and sleep unrefreshing. Bowels apt to be constipated. Upon vaginal examination find that the cervix uteri has been deeply fissured on the right side, and, although considerably united, there is very noticeable absence of muscular tissue at the point of union. The uterus is of normal size and healthy appearance. While examining the posterior surface of the organ, detected a small olive-shaped body which was exquisitely sensitive to the touch. Pressure upon this body excited all the neuralgic pains alluded to, and almost caused fainting.

By careful examination I found this body was movable, and as I could not detect the left ovary in its normal position—while the right was recognized—I concluded that it was a case of displacement of the left ovary with chronic inflammation of that organ. Drs. Hingston and Fuller subsequently saw the case, and agreed with me as to the diagnosis, viz.: that it was a case of *Chronic Oöphiritis* with displacement.

Prognosis.—The nature of the case, and the failure of all medical treatment to afford the east benefit, precluded the idea of obtaining relief short of excision of the displaced organ.

It was hoped that the removal of the source of the patient's troubles would cure her. After explaining the dangers connected with the operation, and the reasons it was recommended, the patient concluded to avail herself of the proposed chance of recovery, and requested that excision should be performed.

Operation. — 11 a.m., January 29th, 1876. Assisted by my friends Drs. Hingston, F. W. Campbell, and Fuller. The patient was anæsthetized by chloroform, and the insensibility kept up by ether.

The posterior cul-de-sac was exposed to view by Sims duck-bill speculum, and the vaginal wall divided in the median line to the extent of about three-fourths of an inch longitudinally. There was very little bleeding which soon

ceased, when I passed the index finger through the incision and easily felt the ovary through the peritoneum. The point of the knife was again used to divide the peritoneal layer; after which the ovary was grasped by the finger and brought through the incision and external to the vulva, when it was ligated with hempen thread and separated with scissors from its ligaments.

The stump was returned, and a pledget of lint inserted into the wound to act as conductor of any fluid that might occupy the cavity of the pelvis. The patient quickly regained consciousness. Within two hours after operation I removed the calico, as its presence was giving her trouble.

At 8 p.m., drew off 10 oz. normal urine. Ordered turpentine stupes to abdomen as she complained of pains over hypogastric region.

January 30th.—Very little pain in the abdomen. Removed urine morning and night. Slept well most of last night. Takes toast and tea, also gruel. Rests well on sides and stomach.

January 31st.—Slept most of the night. Got out of bed and passed a large quantity of urine. No pains. There is a little soreness about perineum and stomach.

February 1st.—Doing well. Gave an aperient to move the bowels.

February 2nd.—Patient felt very well. Examined vagina by the finger and found wound united, and not a trace of any effusion. From this date forward patient made rapid and perfect recovery from the effects of the operation, but her general health continues very feeble.

I have given a table shewing temperature and pulse. It is remarkable that the pulse never went above 88, while 99,5° is the highest point reached by the thermometer.

Subsequent History.—I have little more to add, and that little is unsatisfactory, inasmuch as the patient has experienced but little benefit from the operation. The only relief acknowledged is the removal of dyspareunia.

The general health of the patient, however, is so very poor, I am not without hope that, when her health has been established, she will be entirely relieved of her suffering.

32 Beaver Hall,

Montreal, May, 1876.

Conservative Surgery and Railroad Accidents. By WILLIAM FULLER, M.D., Professor of Anatomy, University of Bishop's College, Montreal.

(Read before the Medico-Chirurgical Society of Montreal, 16th June, 1876.

GENTLEMEN,—Having frequently observed men discharged from military hospitals with amputation performed in the thigh, within a very few inches of the hip, and even with both thighs amputated, I have been struck with the marked contrast in the success of military surgeons, compared with those engaged in ordinary practice, and dealing with the common accidents, which occur to men engaged in the trades, and on railways, the most fatal of all accidents. It is a notorious fact that very few survive a crush of the thigh by the wheels of a railway carriage, and a few thoughts which have occurred to me upon this important subject, I wish to present to the Society, with a view of obtaining the expression of its members upon a matter so vital to the interests of the largest and most useful portion of society, the workingmen. In order to arrive at a just conclusion as to this contrast, for I cannot admit that military surgeons are more skilled than we, we must examine first, carefully, into the different conditions of the accident, and, second, as to whether our treatment is modified to suit the varied conditions. In the accidents of war, though the instruments are blunt, the velocity is great, and the amount of shock sustained is in the inverse ratio to the velocity. I have often enquired of men injured in war of the sensation experienced upon being struck by a ball, and the invariable answer was that they knew nothing of it until the blood was discovered, or they had fallen on the stump of a limb carried away. At most, with a few only, a slight burning or sting was felt. The shock of the accident was comparatively slight. On the other hand, in railway and ordinary accidents, where the velocity of the force applied is slow, and parts are slowly crushed and bones ground in pieces, the shock is very great, and from frequent enquiry it was uniformly asserted by all, that the sensation was horrible at the moment of accident, and the mention of it recalled a terrible feeling which they could not describe. Even in some, a secondary shock was perceptible when the fearful moment was referred to. Experience has laid down certain rules by which military surgeons are guided in the necessities of amputation. The army surgeon amputates according to his rule, and though extensively injured, his patient survives, while, with equal skill on the part of the surgeon and equal con-

stitution in the patient, ours in a great majority of instances die from injuries far less extensive and important. Why is this? Doubtless it is owing to the degree of shock sustained by the system resulting from the different conditions of the accident. The soldier sustains little more than the shock of the knife, the civilian an infinitely greater shock in the injury, with the additional shock of amputation. Thus we observe that, according to the usual method of dealing with these injuries, the chances are very great in favor of the soldier. On comparison the question arises, can we in any way vary the treatment to suit the different conditions, and thus offer to our patients a better prospect of recovery? In other words, is the surgery of war adapted to a civil practice. The flattering results expressed by statistics of amputation in the army, I fear has led us astray, and from a contemplation of the great mortality and its causes in our own cases. Loss of blood is seldom the cause of death in railway accidents. The parts are torn or crushed, and most of the hemorrhage is venous. The cord twisted, by means of a stick, tightly around an injured limb, is not only unnecessary but exceedingly cruel, and if it is loosely drawn it does harm, as it prevents the return of blood through the veins while it fails to compress the arteries. Those in authority should divise some better, and less painful means of arresting hamoerhage. Shock is the most frequent cause of death in a serious injury. It is here we must look to economise the vital energies, if we desire to place our patients in a condition to compare with those of the army surgeon. We can never give them an equal chance, since the first shock in the case of a railway injury is much greater than both the injury and the shock of the knife in the other. How shall we diminish the shock? Obviously only in one way, viz.: omit the amputation, and leave the separation of the dead from the living parts to nature. Experience has yet to test the propriety of this measure. The surgeon may well consider and be cautious, with the formidable array of mortification and septicæmia on one side, and the double shock on the other. Cases frequently occur when we are called upon to decide, whether we shall let this man die quietly, or shall we interfere and kill him in the attempt to save his life. My own feelings are to let a doubtful case alone, from the belief that nature is capable of far greater accomplishments than is usually accredited to her. I think that we are possessed of too great a fear of gangrene, and that its management has not been sufficiently studied by the profession, from want of opportunity, since all doubtful cases are at once amputated. Of two evils we are bound to choose the least, and it appears to me for some reasons, and from observation, that simple traumatic gangrene is not so dreadful in its results, if properly managed, as to force us to a dangerous operation, the shock of which is most likely to destroy the remaining vital powers. It has been my practice in all cases of minor injuries, such as crushes of fingers and toes, and in more extensive injuries of the hand and foot, to leave the amputation to nature, and I have often been surprised at the result. Not only have I seen parts, crushed apparently beyond redemption, restored to their use with very little deformity, but when parts were lost, the stumps thus formed were as neat as any surgeon could desire for his credit, had the amputation been performed by the knife. The natural amputation possessed this advantage, that less was lost, since sloughing, contrary to the general belief, rarely extends above the actual injury. This belief, derived from a fallacy in teaching, together with a dread of gangrene, resulting from a want of knowledge of its management, leads the surgeon to perform amputation much higher than is necessary, for fear of including in the flaps parts deficient in vitality from the bruise. I will quote a few cases out of many, in illustration of the success of conservative surgery in minor accidents, and two more serious cases, one, of the arm, perfectly successful, and the other, of the leg, which would have necessitated amputation of the thigh, if the patient had been in a condition to support it. This last patient lived twelve days, long enough to prove some important points, and to offer some encouragement for further trial under similar circumstances.

Case 1.—A boy, aged fifteen years, had his hand caught in a carding machine. It came out much like a preparation to illustrate the ligaments of the hand. The back of the fingers and hand, as far as the wrist, was completely denuded of integument, nails, and cellular tissue, so as to expose the bones and the tendons which were also torn in shreds in places. The palmer surfaces of the fingers, as well as the palm, was also much torn, and a large part was removed in the accident, and also sloughed. The hand was dressed, portions replaced as well as possible, with a view of saving as much of the hand as might be useful. The result was that the whole cleaned up in a short time, granulated, became covered with integument, and, by proper attention to daily movements, a useful hand was preserved, with fingers almost as movable as before.

Case 2.—A man, aged 38 years, had the fingers of his right hand caught while coupling cars. All the fingers were crushed, the palmer surfaces were split and torn, exposing the sheaths of the tendons from the palm to the tips. The bones were fractured in several places, the first phalanges of the index, middle and ring fingers, were fractured about half an inch from the knuckles. These fingers sloughed, and were removed at the fractures just mentioned. Sufficient integument lived at the sides to cover the stumps. The little finger, with the exception of the fracture, near the knuckle, was apparently injured as much as the rest, yet it lived. Had amputation been determined upon at the time of injury, all the fingers would have been removed at the knuckle joints. The stumps are movable, and the little finger, though stiff at the first joint which was laid open, and the tendon on the back injured, yet, with the thumb makes a very useful hand.

Case 3.—A boy, aged sixteen years, had his foot crushed by a car wheel, which passed obliquely over the end of the great toe to the upper end of the metatarsal bone of the little toe, crushing all the small toes, which were removed with the greater portion of the metatarsal bones. The great toe was left, as it was thought it might recover. The integument of the dorsum of the foot sloughed, as well as that surrounding the metatarsal bones of the great toe, excepting a piece about the size of a shilling beneath the ball. The toe fell off at the last joint, as well as the tissues covering the first phalanx, excepting at its junction with the metatarsal bone, which left the bone projecting about an inch bare and dry. I expected to see it fall off at the joint, but in a few days it began to look transparent, then reddish, when a few granulations sprung out of the distal extremity, which developed into an appearance like a mushroom on its stalk. These granulations extended gradually upwards, until they were met by those from above, when the bone was entirely covered. The whole covered with integument and made a very useful support.

Case 4.—A man, twenty-five years of age, while coupling cars, had his arm crushed from the shoulder to the elbow. The condition was as follows: bone unbroken, skin distended to its fullest extent and much discolored, soft parts crushed to a jelly, so that the bone could be felt at any point distinctly, as if it moved through a sack of clots. There was no pulse at the wrist, and the arm was cold. There was sensation in the fingers, pain, and considerable shock to the system. The case apparently required amputation at the shoulder. Yet the arm recovered perfectly after a time. It was three or four months before it got strong. The pulse in the wrist did not return while I attended him, though he assured me that he had one before the accident.

Case 5.—A man, thirty-eight years of age, of good constitution and temperate habits, had both legs run over by the cars. The right thigh was bruised from the trochanter to the knee. The wheel mounted the limb just below the knee, crushing the soft parts, fracturing the bones, and making two small openings in the integument. The blood was coagulated in the dorsum of the foot, sensation was partially destroyed in the foot and toes. The left leg was completely crushed above the ankle, and was amputated three inches below the knee. The patient and his friends strongly objected to amputation of the right thigh, consequently it was left to nature, though all present were of a decided opinion that there was no hope of its recovery. The amputation of the left leg was performed at 7 a.m. The patient complained of considerable pain in the right leg at about 9 a.m., and at noon sensation was entirely lost in the foot and leg, with other signs of complete mortification of the part. The shock at this time was great, and the man continued to sink until about midnight, when he remained between life and death for a few hours. A slight reaction occurred in the morning, but as it was thought that he was too weak to survive amputation of the thigh, it was decided to remove as much of the mortified parts as could be done without fatiguing the patient. The foot was removed at the ankle, the bones of the leg separately, as high as the fracture, and as much of the leg as could be taken away without causing pain. The object of this measure was to provide for external drainage, and to prevent contamination of the system. The condition of the limb now was that of sloughed flaps after amputation, and, to all appearances, stood a fair chance of making a good stump below the knee, as the sloughing in front did not extend above the fracture of the tibia, which was just below the attachment of the ligamentum patelæ, and behind the calf lived about four inches below the fracture, sufficient to make all the flap that would be required to cover the end of the bone. The flaps of the left leg also sloughed along their inner surfaces, so that both limbs were in the same condition, excepting the bruise on the right thigh, which sloughed subsequently. An incision was made from the knee to within four or five inches of the trochanter, and the whole was washed frequently, to

remove the fœtid fluids and sloughs. The ends of both stumps, as well as a large portion of the exposed fascia lata, on the outer side of the thigh, cleaned up and granulated, before the patient died, which occurred on the twelfth day, from septicæmia, resulting from the sloughing of the contused cellular tissue of the thigh. A high reactionary fever, with a hard round pulse, was set up on the fourth day, and continued several days, which was the probable cause of the latter sloughing in the thigh. The flaps of the left leg were left open, without stitches, and no infiltration of any account took place in either leg, a point to which I will refer at another time. The points of interest to me in this case, and for which I was responsible in consultation, were: 1st. The leaving of the right limb to nature. 2nd. Leaving the flaps of the left without stitching. The latter, which I consider important in amputation after severe injuries, I will treat of in a future paper. The former, I will endeavor to defend as applicable to certain cases.

The experience of eminent surgeons is quoted in justification of amputation in all injuries where it is very doubtful that a limb can be saved, if there or, is a certainty that it will be lost. A conclusion which is subject to doubt since, there are many who have had a large experience in amputation as a routine practice, without having tried another method, so we should infer, as they are silent upon that point. Consequently their experience, which is all on one side, counts for nothing as a guide in practice. If we could always be convinced of the infallibility of the opinions expressed by books and instructors, it would be unnecessary to experiment, or to seek for any further progress in our art.

Unfortunately for surgical and medical progress, only such cases are reported which have been successful, and which reflect some credit upon the attendant. Unless in rare instances, no case finds the light, where a mistake, or unsuccessful experiment has occurred. Few men have the courage to sustain the criticism which might be passed upon their judgment at all times. And we are forced to admit that the profession is often too uncharitable toward an individual, who, in the excitement of a critical case, happens to err in judgment, or with a desire to advance medical science or save his patient, makes an unsuccessful experiment in an otherwise hopeless case. There is often a doubt in the surgeon's mind whether a part can be saved, and many a man is ornamented with a useful member, which the surgeon had condemned to amputation, and was prevented only by a want of the consent of his patient. Where there is the slightest doubt, the timid and the routinist amputate at once in fear of gangrene, and thus parts are sacrificed which might recover under proper management, and the patient is submitted to an unnecessary shock, which might prove fatal.

In simple death of a part not due to constitutional causes, or septic germs in the atmosphere, the danger is due to the absorption of the juices and gases of mortified parts into the system, and if we provide for the external escape of these, there is no more danger from a sloughed limb than there is from a sloughed flap after amputation, an occurrence which is frequently recovered from. In case five we observe that there was no material difference in the stumps, one was amputated and the flaps sloughed, while in the other the leg sloughed and was removed to within a very short distance of the living flesh. Both were then in the same condition, and both cleaned up and looked well. The man's death was due to the injury extending from the hip to the knee, which would have been an equal source of danger had amputation been performed, unless it was done at the hip, which was out of the question. A good flap lived below the injury, consequently had the thigh been uninjured, the limb would have been preserved below the knee, as in the other leg. Judging from this, and many other accidents of less extent, where sloughing of parts occurred, I am disposed to think that gangrene, even of a limb, is not so dangerous as is generally apprehended, provided that great care is taken for external drainage, by removing as much of the slough as possible, slitting up sinuses, and frequent washing away of decomposed matters. When gangrene continues to spread, despite these measures, I believe that it would occur in the stump after amputation, owing to a defect in the constitution, or to poisoning, as in hospital gangrene. In this case the patient would die whether amputation was performed or not.

While gangrene produces a fever, a high reactionary fever also produces gangrene in bruised parts, the vitality of which is low, so that it should be the greatest care of the surgeon not to allow the temperature of the blood to reach that state, which would convert a healthy into an irritable sore. Now that antipyritic treatment is so well understood in the treatment of typhoid fever, it is our duty to extend it to other diseases. In testimony of its efficacy, allow me to state that I have used it with great

benefit in scarlet fever, both baths and large doses of quinine, with the happiest result in ordinary cases, as well as in the dyphtheritic condition of the throat, where the fauces were in a highly inflamed and irritable condition with a very fœtid smell. I was highly gratified in the few cases I saw, to observe the inflamed appearance disappear when the temperature of the body was reduced. The secretion increased in quantity, and became more healthy. I have no doubt that had the high temperature been allowed to continue, a true anginose variety would have been developed, that is sloughing would have ensued. I make this observation in support of the belief that an excessive reaction is often the cause of spreading gangrene. Another cause is depression of the vital powers, from want of constitution, excessive hemorrhage, or shock, in which case the patient dies without rallying. An additional shock could not benefit these cases. I think that, in view of the very great mortality after amputations for railway injuries, probably owing to the additional shock of amputation, that since we have no authentic cases reported in books of surgery illustrating an opposite course of treatment, to the one generally recommended and practised, we are justified in exercising individual judgment in certain cases, as to whether it is advisable to amputate, or to leave the case to nature, with the adoption of such measures as will tend to obviate contamination of the system, by the decomposition of dead parts.

I desire a free expression of the members of the Society on this important matter, in order that no individual blame might rest upon the shoulders of any one who might choose to depart from the usual course of practice, if reason points it out him, as his duty between himself and his patient.

531 Wellington street.

A NEW MUCILAGE.—The *Journal de Pharmacie* states that if to a strong solution of gum arabic, measuring 8½ fluid ounces, a solution of 30 grains of sulphate of aluminum dissolved in two-thirds of an ounce of water be added, a very strong mucilage is formed, capable of fastening wood together, or of mending porcelain or glass.

In this connection "Monad" would say, that in dispensing he finds that the salicylic acid deposits in a short time from a mixture of alcohol and water, unless the former be in excess of that allowed by the necessities of the case; but when the acid is dissolved in *Liquor Ammoniæ Acetatis*, the solution remains perfect and its medical virtues unimpaired.

—*Canada Pharmaceutical Journal.*

Progress of Medical Science.

THE NEW REMEDIES IN FEVER.

Salicylic acid and salicylate of soda are at present attracting much attention in Germany for their property of reducing the temperature in febrile affections. We have already mentioned (see the preceding article) the researches of Frübringer, Mveli, and Wolffberg on this subject, and we propose in the present article to put our readers in possession of further observations, both clinical and experimental, which have recently been published. In the first place, as it was hoped that salicylic acid might become a cheap substitute for quinine in intermittent fever, it has been tried by several observers in that disease, but unfortunately, with only limited success. Dr. Arnold Hiller, of Berlin gave it to twelve soldiers, of whom six had ague for the first time, and six were suffering from relapses, and he found that though it really exerted some curative action, yet that ten times as much salicylic acid must be given in ague to produce the same effect as quinine; that this action is only exerted on mild forms and those which are treated early, and is scarcely preceptible even in proportionately large doses in severe cases, or in those which have relapsed; that its action is not only weaker than that of quinine, but much less persistent; and lastly, that relapses occur earlier and more frequently than is the case with quinine. Dr. L. Riess also found, that, while some cases in which he tried it were cured at once, others required repeated doses to produce an effect, while in the remainder it was necessary to give quinine before the disease could be subdued. Somewhat similar results were obtained in the out-patient department of the Augusta Hospital at Berlin, under Porfessor Senator, so that, as far as we can at present judge, salicylic acid is scarcely likely to compete with quinine in intermittent fever, more especially as in the large doses required it is, as Dr. Hiller proves, more expensive than the latter.

With regard to typhoid fever a considerable number of observations have been made, and especially by Riess (*loc. cit.*), who gave the acid in the neutralized form, as salicylate of soda, in as many as 260 cases. Whenever the temperature rose above 39° C., five grammes of acid were given in one dose in a solution of carbonate of soda. Sometimes the first dose acted only slightly, but the effect was always distinctly marked in the later doses. In cases of moderate severity only one dose was generally necessary in the twenty-four hours, and from the middle or end of the second weak only every thirty-six or forty-eight hours. From the third week onwards, the temperature seldom rose above, 38°, so that, on the average, eight or ten doses in all

were enough to keep the temperature almost normal. In spite of the reduction of temperature under the action of the salicylic acid, the frequency of the pulse was completely unaffected, although it often became stronger and less dicrotic. The severer cases, as well as those attended with delirium, were treated with a combination of cold baths with the acid, and it was found that under these circumstances the effect of the baths was more marked and more persistent than if they had been used independently. The treatment appeared to exert a distinct influence in shortening the duration of the disease; the average length of the febrile period in 164 cases which were treated early, and which ended favourably, being 13.1 days. This may be looked on as a good result, considering the malignant character of the particular epidemic, the total mortality of the 260 cases being 63, or 24.2 per cent. Dr. A. Fisher has reported twenty-three cases of typhoid which were treated with salicylic acid and salicylate of soda in the Dresden Hospital, and, while admitting their antipyretic action, considers that, weight for weight, quinine is six or eight times as powerful as those drugs. Dr. Goltdammer treated fifty-six cases of typhoid fever with the acid, chiefly in the form of salicylate of soda according to Riess's formula. He found that in the first two weeks of the disease the acid was most effective if given in the evening, but that, when the period of morning remissions sets in, it is best given in the morning, and at that time, too, smaller doses of it are required. Of the fifty-six cases seven died; three of them from pneumonia. Dr. Goltdammer did not find, as Riess did, that the duration of the disease was perceptibly shortened by the treatment. Herr A. Nathan has also published a few cases of typhoid fever treated with salicylate of soda, with very favourable results. Contrary to the experience of Riess and Goltdammer, he found that a considerable influence was exerted on the pulse and respirations, both of which diminished in frequency. We have already (*Medical Times and Gazette*, Feb. 5, 1876, p. 144) called attention to the action of salicylic acid in acute rheumatism. Other observers agree with Stricker, that in this disease the effect is almost specific. In fairness it should be stated that Dr. Buss, of Basle, in his original paper—to which we owe our earliest knowledge of the antipyretic action of salicylic acid—distinctly stated (*loc. cit.*, p. 488) that he was inclined to ascribe a specific virtue to the drug in rheumatic fever. Dr. Riess has since made the same observation in fifteen cases which he treated, and in fact four of these only required a single dose, and three others two doses, to produce permanent improvement. The atipyretic effect of the acid exhibits itself in other diseases besides the above mentioned—for instance, in erysipelas, primary pneumonia, and the hectic of phthisis,—though observers are not entirely agreed as to the relative effect in each disease; but we gather from their statements that the depression of temperature which the drug produces has a somewhat transitory character. With regard to the form of administration, the observers quoted are divided among themselves, some preferring to give the pure acid, and others the salicylate of soda. Buss prefers the pure acid (salicylic acid two grammes, and sugar one gramme suspended in water) and he states that so little does it disturb the digestion that he has himself taken at one dose four grammes half an hour before luncheon without being able to discover that his appetite was in the least affected by it. According to him, patients with fever can take larger quantities than healthy persons, and he frequently gave six grammes at a dose suspended like an emulsion in water. On the other hand, Hiller (*loc. cit.*) is much opposed to the use of the pure acid, at any rate in ague, since doses large enough to reduce the temperature decidedly (five to eight grammes) are not only most unpleasant to take, but are liable to produce vomiting as well as a feeling of burning and tickling in the throat, and possibly to set up ulceration in the stomach and and intestines; although there was no reason to suspect the latter events in any of Hiller's own cases. In consequence of the insolubility of the acid in cold water (1 part in 300) it is impossible to use a simple aqueous solution to reduce fever, since several litres would be required to introduce into the system an effective dose, and few patients would consent to be swamped, so to speak, with medicine, even if it were of a more agreeable kind than salicylic acid. The salicylate of soda seems, all things considered, to be the best form for administration, and it is probable that since the physiological action of the latter is equally powerful, it will probably be preferred to salicylic acid in future by most medical men. Both the acid and the soda-salt agree in producing in full dose a sense of oppression in the head, and ringing in the ears. Buss describes a congestive period as occurring in healthy persons after doses of three or four grammes: in this there is a general feeling of warmth over the whole body, accompanied by general perspiration, and diminished acuteness of sight and hearing. This passes off in about a quarter of an hour, and the ringing in the ears succeeds about two hours later, and may last some hours or even a whole day when the dose has been very large. Copious sweats seem to be an almost constant effect of the remedy (Buss, Riess, Fischer, Goltdammer). Collapse has been noticed in a few cases. Goltdammer, especially calls attention to this symptom, and states that in a slight degree it not unfrequently occurs. He mentions a case of acute tuberculosis in which the temperature was reduced to the normal by a five gramme dose, but in which the collapse was so severe that the patient

barely rallied. And in another case of severe typhoid fever, in the fifth week the patient died in the collapse that followed a similar dose. It should be noted, however, that Riess, in a much larger number of cases, only met with this symptom three times. Ulcerations or erosions of the mucous membrane of the digestive tract appear to be of very rare occurrence. They were not found in any of Riess's post-mortems, although carefully looked for, and in two cases of death from intestinal hemorrhage during typhoid fever which Fischer examined, it was proved that the blood came from the typhoid ulcers and not from any erosions which could have been produced by the salicylic acid. One case is indeed reported by Goltdammer, in which five or six ulcers were found in the stomach of a patient with acute tuberculosis, who had taken in all twelve grammes of the pure acid; but these may possibly be explained by the lowered state of vitality of the patient's tissues, and also by some impurity in the drug used. There seems to be very little doubt that the discrepancies between the statements of good observers with regard to salicylic acid are in the main due to differences in the samples of acid used, and that in the future those who administer it in large doses ought to be extremely careful that they have to do with a really pure acid.—*Med. Times and Gaz.*, April 29, 1876.

TREATMENT OF ACUTE ARTICULAR RHEUMATISM BY SALICYLIC ACID.

By Dr. Stricker, translated by "Monad."

Dr. Stricker, who publishes this work, recapitulates as follows the effects produced by salicylic acid in acute articular rheumatism. 1st. Observations made for many months prove that articular rheumatisms have always been treated with great success by salicylic acid.

2nd. The effect of the remedy is produced generally at the end of forty-eight hours.

3rd. Even before this time, with many patients, the temperature is lowered, and what is more remarkable, the local manifestations such as swelling, redness, and especially pain, have disappeared.

Dr. Stricker does not pretend that salicylic acid will cure all rheumatisms in forty-eight hours; but he declares the fact true when the treatment is applied from the very outset. Not being able to attribute to simple chance the constancy of the results, he does not hesitate to affirm that:

4th. Salicylic acid, beyond its antipyretic virtues, is the most efficacious remedy, perhaps the only radical one, against acute articular rheumatism, and he does not in any case fear inspection of his observations.

Since the work of Dr. Stricker has been published, Dr. Buss has produced a pamphlet which he has sent to Prof. Traube, and in which he arrives at the same conclusions.

Dr. Stricker requests physicians who propose to try salicylic acid in rheumatism, to conform to the rules that he has established for treatment. They must expect, according to him, from time and experience the modifications necessary in the choice of preparations and method of treatment.

At present, the observations collected by him prove that the salicylate of soda, administered in larger doses, produces the same effect as the acid itself.

The most remarkable effect of this remedy in rheumatic polyarthritis is not the lowering of temperature, but especially the soothing of the local pains. Nevertheless, in cases of rheumatism where no objective symptoms exist depending on the joints, and where the pain is purely subjective, the acid appears to Dr. Stricker to be contraindicated. Success, on the contrary, is not doubtful when there is swelling, redness, and heat of the joint.

As much as possible, the treatment should begin in the morning. The effect produced in the day will insure the patient a tranquil night.

In the practice of Prof. Traube, salicylic acid reduced to powder is employed. It is indispensable that it be pure, otherwise the effects of the medicine become hurtful: great irritation of the buccal, asophageal, and stomachic mucous membranes is caused. This is due to foreign principles, particularly to phenol, mixed with the acid, which gives them a yellowish coloration, and a troubled solution. When absolutely pure it crystallizes in white brilliant needles, is inodorous, and completely soluble in water and alcohol.

The acid may be administered in large doses without causing inconvenience to the digestive tube. Applied to the mucous membrane of the mouth and pharynx, it produces a sensation of dryness, later a slight burning, and increases the secretions from these membranes.

Dr. Stricker recommends the administration of salicylic acid in powder, in the dose of one-half to one gramme every hour, in unleavened bread, and he has never seen the least injury follow. These doses are continued until the patient can move his joints without pain. The quantity of the medicine necessary is variable; it may range from five to fifteen grammes. The remedy acts more rapidly in proportion as the case is taken early. There is nothing to fear in exceeding the quantity of fifteen grammes when necessary: the digestive tube will not suffer from it. Dr. Stricker speaks of a patient who took, unknowingly, in the space of twelve hours, twenty-two grammes of the medicine, and felt no pain in the stomach; and very singularly, this energetic treatment cleaned the tongue and brought back his appetite. A large dose may be given once, and thus replace small ones, without causing the least danger to the patient; but experience has not yet taught us the limit beyond which it will be dangerous to pass.

There may occur, in the course of the treatment, perspiration, ringing in the ears, and even a slight deafness; but these are of slight importance, and should not arrest the physician. It is not necessary

to regard the nausea and vomiting which are produced in extreemely rare cases.

Dr. Stricker does not possess data sufficient to show the influence of salicylic acid on the production of secondary inflammations, and particularly of endocarditis, which supervenes in the course of acute articular rheumatism. Most of the patients that he has treated presented injuries of the orifices, or signs of endocarditis, at the time the treatment was begun.

His statistics consist of fourteen cases: without doubt this number is small, but his observations present such an agreement, that after having compared them with one another, physicians will be tempted to try this new mode of treatment. It is not to be supposed that a rheumatic patient freed from his pains by salicylic acid, can return immediately to his employment: he ought, as other patients, take a certain time for convalescence. It remains to be seen if it will not be useful to continue for several days the exhibition of salicylic acid in decreasing doses. Subsequent observations will demonstrate the value of that assertion, expressed *à priori*.

ON TOPICAL BLOODLETTING.

On this subject, Dr. Mapother writes, in the Dublin *Medical Journal*:—

If Luschka's statement that the umbilical vein, or ligamentum teres, of the adult is constantly pervious from the left branch of the portal to the deep epigastric, be correct, then leeching round the navel may be direct and effectual in inflammations of the liver and all other organs discharging blood by the portal vein. This anatomical point, however, requires confirmation.

For acute dysentery of the tropics, and other inflammatory affections of the abdominal organs, a hundred or two of leeches have been used without avail, according to writers of the last generation, while half as much blood drawn quickly from the arm produced a profound impression on the system.

There is no organ which has so special a blood-supply as the kidney. Insulated in a mass of fat, it joins no other part by vessels, except on the left side the testis, by the spermatic.

Renal congestion can, therefore, be scarcely influenced by leeching, or cupping the loins, and the good supposed to follow them must be attributed to the warmth, rest, and low diet, which usually are enforced; the first determining to the skin, to the relief of the renal arteries, the others checking the formation of nitrogenized compounds. The labor of the organ is lessened by all these means.

The testicle returns its blood by the spermatic veins, and as these vessels pass through the groins and join the superficial veins of the region, leeching there is best calculated to relieve the organ. The veins of the scrotum return to the superficial pubic and epigastric, and puncturing them I have found valueless in cases of orchitis, while the risks of erysipelas or ecchymosis forbid leeches.

The anus has been often selected for leeching in hepatic congestions; but as it is only the superior hemorrhoidal veins which return to the portal vein, any external bleeding can only be indirect. The middle and inferior hemorrhoidal veins go to the internal iliac. In the male nothing can be more intimate than the anastomosis between the veins of the bladder and postate and rectum, and hemorrhage from one of these regions is often vicarious with that of the other.

To draw blood in acute cystitis or prostatitis the surface of the rectum is the fit site, and as leeches will scarcely fix there, it is better to puncture one or two veins with a narrow, long bistoury, the gut being held open by a speculum.

Concerning obstetric subjects, I always speak with diffidence. While it must be acknowledged that we have learned much from the practice of letting blood by direct incision of the womb, for congestive or inflammatory affections, it appears necessary that, in the case of virgins, we should seek some other source of depletion; the need, on account of moral reasons, is obvious; and, anatomically, the uterine plexus is slightly developed in the unimpregnated, and depletion from the labia or rectum will drain more fully. Around the rectum there is a free junction between the superior hemorrhoidal and uterine veins.

The veins in the limbs, deep and superficial, join at most numerous points, in order that the circulation shall not be interrupted during muscular action. Leeching the skin over an inflamed joint or periosteum is, therefore, the same as opening the vessels coming from the invaded part, and hence the undoubted efficacy of the measure in such cases. By the way, it is remarkable that we so rarely find the muscles the seat of inflammatory action. The rapid flow of blood, urged on by the muscles themselves, which are like hearts to the veins, may account for the immunity; whereas the fibrous tissues, so sparingly supplied, are often inflamed in the subacute way, and topical bloodletting is most efficacious. When treating aneurisms by complete pressure, leeching over the sac should give aid, by lessening the tension of the arrested blood, relieving it of serum, and increasing the fibrin. In cutaneous inflammations, erysipelas, acne, etc., the flow of blood and its effused fluids, by incisions, is too obviously efficacious to need comment.

Venesection at the bend of the elbow is almost a thing of the past, and to the question of general bloodletting I do not allude, but in severe whitlows and synovitis of the wrist joint it gives striking relief as a topical measure.

The same may be true of opening the internal saphena vein in acute inflammation of any part of the lower extremity.

As to the modes of topical bleeding, leeching is very generally applicable, and the German practice of puncturing the left side of the animal, so as to open the last of the gastric pouches—bdellatomy, as it is termed—is worthy of imitation, as blood flows far more rapidly, and the quantity is trebled from

each bite. Cupping over the bites, when the leeches have dropped off, draws blood quicker than stuping, and the bleeding will more readily stop, for the blood coagulates, its gases being exhausted.

Still, without dread, we cannot order the introduction of leeches into the nasal, pharyngeal, rectal, or vaginal cavities; and puncturing the veinlets, and aiding the flow by irrigation with warm water, may be well substituted. Incisions draw blood more quickly, and the bleeding is more easily stopped. I have often bled from the nasal septum by touching the mucous membrane at three or four points with a sharp, long bistoury, the ala nasi being fully everted.

Let me now recapitulate some of the organs and the superficial spots whence they may be drained :— The eye, at the mastoid process and angle of jaw; the cerebral hemispheres, at the nasal septum and posterior, inferior angle of the parietal; the base of brain and ear, at the mastoid; the right heart, over the thyroid body; the pericardium and front of pleuræ, outside the caps of sternum; the lungs, along the bases of scapulae; and the digestive organs, from the rectum. From the veins of this gut, also, those of the bladder and prostate, uterus and ovaries, can be depleted.

ON TREATMENT OF CONVULSIONS IN INFANTS.

Mons. Blanchez, in a lecture on diseases of children, in the *Medical Times and Gazette*, lays down the following rule for the treatment of convulsions. If it be a single attack, and gives no signs of a tendency to recur, it is best to confine ourselves to some hygienic precautions, such as securing efficient ventilation, etc. If the attacks run into each other, or recur at short intervals, revulsives should be applied to the lower extremities, compresses of cold water, or of water with ether, being also laid on the temples. Compression may at the same time be made on the carotid arteries, as recommended by Trousseau. The pulsation of these vessels must be sought for at the lateral parts of the neck, and then they must be gradually compressed backward toward the spinal column. The amelioration should be rapid; and if after two or three minutes it has not manifested itself in an evident manner, the compression should not be longer continued. Inhalations of chloroform may then be resorted to, administering them in a very gentle and gradual manner. In order to avoid all danger, slight as this is, it is necessary that a certain quantity of air should be always mixed with the chloroform vapors. In some cases special indications present themselves, as for the employment of an emetic when it is well made out that the convulsions are due to indigestion. When the attack has been overcome, we must try to modify the general eclampsic condition by having recourse to anti-spasmodic treatment; but the management of agents of this description requires great prudence, several of them being of a dangerous character. Their dose is of great importance. For an infant, from eight to fifteen months old, we should never exceed the dose of thirty centigrammes, after having commenced with five centigrammes. The maximum dose of belladonna powder is ten centigrammes, after commenced with one, increasing it very gradually, and carefully watching the throat and pupils of the child. We may proceed more boldly with oxide of zinc or James' powder (which M. Blanchez has not found of any special utility), of which ten centigrammes may be given every two hours; but bromide of potassium and chloral are to be preferred to any of these remedies. Of the bromide from ten to twenty centigrammes may be given every two hours, until fifty or sixty centigrammes are reached in an infant, and from two to three grammes in a child of seven. The effect should be manifest at the end of twenty-four hours, or the dose should be increased. A mixed treatment of the bromide and chloral gives little better results, the bromide being given during the day and the chloral at night. The maximum of the latter agent is twenty-five centigrammes for an infant, and fifty for older children.

SALICYLIC ACID IN THE TREATMENT OF ACUTE ARTICULAR RHEUMATISM.

Salicylic acid, since its introduction into the materia medica, has been very extensively employed as an antiseptic and febrifuge. Its exact value in both of these offices is still apparently *sub judice* Within a few months, surprising results have been claimed for it in the treatment of acute articular rheumatism, and we give below a summary of the results attained by several recent German observers. Thus Dr. Stricker, from its use in Prof. Trub's wards declares it has been found on trial to be a remedy capable of definitely curing recent cases of rheumatic affection of the joints in an exceedingly short time. He does not claim for it the power of absorbing exudations which have already taken place in the joints; in the acute stage he finds improvement is coincident with the fall of the temperature. He considers it harmless, if given in doses of from 7 to 15 grains an hour. While these are safe doses for young and vigorous psrsons, they may, in those who are advanced or weakly, produce some excitement, with ringing in the ears, deafness and sweating. To prevent relapses he advises that the acid should be continued in diminishing doses for some days after the chief symptoms are subdueed. The acid is of very doubtful utility in chronic rheumatism, and that associated with gonorrhœa and dysentery. Dr. S. uses the pure acid in a pulverized or finely crystallized form.

Dr. Hildebrandit, in the *Deutche Med. Wochershr*, No. 7, 1J36, gives the details of a case of acute rheumatism, occurring in a girl of eleven, to whom he gave the salicylic acid in doses of $3\frac{3}{4}$ grains hourly. with the result of complete relief of the symptoms at the end of thirty six hours. It was continued in doses of $1\frac{1}{2}$ grains for some days longer.

At the end of a short article on the various uses of salicylic acid. in which its use in diphteria occupies most attention, D. Robert Buch. from his own experience in a number of cases, confirms the favorable

views of Stricker regadging its use in acute rheumatism. With him, too,it has proved unsatisfactory in the chronic form. He prefers to give it, as recommended by Hanow, in solution with phosphate of soda; and not, according to the plan of Schulz, suspended in mucilage.

L. Riess, of Berlin, is inclined to speak more guardedly than Stricker of the action of the acid in rheumatism. Thus he recommends it as a valuable antiseptic in this disease, and says that in many cases, especially when coming early under treatment a great amelioration of the symptoms is coincident with the defloresecence. From his figures, however, it would appear that the duration of treatment in a majority of cases is not very short. His own plan was to give the remedy in large single doses, combined with soda, as often as the temperature reached 102.2° N., but he afterwards adopted Stricker's so far as to give 15 grain doses hourly; using as before however, the solution, with phosphate of soda, and not the pure crystals. Still his results were much less favorable than Stricker's. He has more recently used the commercial salicylate of soda.

Dr. Julius Steninitz, of Berslau, gives details of three cases, in which he gaveto two adults doses of 7½ grains hourly of the pure acid, and to a child of six and a half years 3 grains at the like intervals. The two former were practically free from pain and fever after nineteen and twenty doses respectively, although the second one had been complicated with very voilent delirium. The child required but sixteen doses. Dr. Steinitc, too, has found it entirely valueless in chronic rheumatism.—*Berl. Klin. Woch., Feb.* 21, 1876— *Allg. Med. Cent. Zeit. Feb.* 23, 26, *Mar,* 1 *and* 4, 1876.

ON THE TREATMENT OF PITYRIASIS CAPITIS BY SOLUTION OF CHLORAL.

In a paper read before the Société de Thérapeutique of Paris, reported in the *Bulletin Général de Thérapeutique*, Dr. Martineau advocates the treatment of pityriasis capitis with solutions containing chloral. After remarking on the persistence of pityriasis and its obstinate resistance to the numerous drugs which have been tried against it. Dr. Martineau says: "If I am not deceiving myself. chloral offers us a means if not certain at least very efficacious for the treatment of this rebellious affection." In the hands of Dr. Martineau and also of Professor Tardieu. the following solution has given excellent results: water, 500 grammes; hydrate of chloral. 25 grammes. This solution should be made lukewarm. and applied in the morning with a sponge to the diseased parts. The part touched with it must not be wiped. If the pityriasis be recent, a single application will often suffice for its cure; if it be old. it disappears to reappear later on. The solution of chloral always has the effect of causing a disappearance of the rash and the pruritus, so that it is sufficient to continue the lotion in a case of chronic pityriasis until the patient suffers no inconvenience from his disease. If the pityriasis be complicated with any other cutaneous affection. as erythema or prurigo, it is necessary, before employing the solution of chloral, to use the following liquid: water, 500 grammes; hydrate of chloral, 2? grammes; Van Swieten's solution, 100 grammes. This solution should be used every morning with a small sponge. When the affection which complicates the pityriasis has disappeared, the chloral solution may be returned to. The application of solution of chloral causes immediate redness of the skin and provokes slight itching, but these inconveniences only last a few minutes.—*London Med. Record,* March 15, 1876.

TREATMENT OF RINGWORM.

Mr. Erasmus Wilson considers (*Medical Examiner*, April 6, 1876.)that a really healthy child cannot have ringworm. Therefore, where tinea is found to exist, the practitioner should set himself the task of improving the strength of the patient. Ringworm is usually most rife at the growing period of life; it is rare in infancy, and ceases altogether after puberty; so that it is at the growing period, when the greatest demands are made on the nutritive power of the individual, that the disease prevails. It is at this period that demands are also made on the vital powers for education, and children are removed from the care and indulgences of home to the less agreeable duties of school. There can be no doubt that there may be poorly nourished children at home as well as at school, and hence the ringworm may prevail in the family at home as well as in the family at school. As a prophylactic against ringworm, and also as a remedy for its cure, Mr. Wilson would begin by enforcing a generous and nutritious diet, meat in some form three times a day, puddings made of flour and suet and varied in flavor and taste and a little good beer. The quantity must be regulated by the appetite of the child. There need be no excess, but every meal should be as nearly as possible equally nutritive. Adults deem it necessary to have three nutritive meals a day, whilst the children of the family are often put off with two, possibly because they are little; but they are in reality the germs of the future great, and have abundant employment for their nourishment in building up a healthy structure for the coming man. If they are deprived of the wherewithal, the coming man, and all that springs from him in the future, will be weak and feeble, and as time wears on will develop those diseases which are known to be the consequences of a feeble constitution. The diet of children we often find reduced to the miserable standard of bread and butter and milk and

water for breakfast; for dinner, meat and milk and rice puddings with water, and in the evening, bread and butter and milk and water. No better method could be devised for engendering ringworm, scrofula, phthisis, and cancer. It is quite true that in some instances children will not thrive even on the best selected diet, but in these cases it is perfectly surprising what may be accomplished by a few drops of arsenical solution added to the food. It is with this object, after securing a good and substantial diet as preliminary to the treatment of ringworm that Mr. Wilson is in the habit of prescribing ferro-arsenical mixture, in doses representing two minims of Fowler's solution with each meal three times a day. This treatment he declares to be infallible, and suitable to every case. Where ringworm prevails in public institutions or in considerable aggregations of children, it is customary to lay the blame on contagion, whereas it would be more consistent with truth to admit that the surroundings of the invalids are not favourable to the promotion and maintenance of general health. Cod-liver oil, which is sometimes of great value in tinea as well as in favus, is probably nothing more than a means of nutrition, and may take its place by the side of diet. And arsenic is a useful and indeed necessary remedy—*Practitioner*, May, 1876.

LIQUOR POTASSÆ IN DIPHTHERIA.

In a letter to the June number of the Boston *Journal of Chemistry*, Dr. Edward H. Sholl, of Gainesville, Alabama, says:—

Some five or more years since, my attention was called to an article on this subject in my weekly companion, the MEDICAL AND SURGICAL REPORTER, of Philadelphia, by a physician of Philadelphia, whose name I do not now recall, directing attention to the use of the liquor potassæ in this disease.

Not satisfied with any treatment pursued in my practice prior to that time, the resolution was made to test this. An opportunity was soon afforded in a case of an adult male, and of extreme severity. To be certain, four physicians were called to examine and diagnose the case. All agreed as to its specific nature. For more than twenty-four hours the disease had been treated with iron, chlorate of potash, ammonia, etc., but the symptoms of debility, with local invasion of the throat, were rapidly increasing. All previous medication was suspended, and he was put upon the use of the liquor potassæ alone, in twenty-drop doses every three hours. In thirty-six hours every trace of the membranous deposit was gone, and the fever subsiding. The patient went on to speady convalescence, and was soon able to leave my office, where I had kept him in order to conduct the experiment accurately. Since that time the remedy has been used, with like result, in every case of diphtheria coming under my care, and is given in doses suitable to age, every three hours. Usually, in the early stage, I alternate it with a four-ounce saturated solution of chlorate of potash, to which is added one fluid drachm of hydrochloric acid and two of tincture of iron, of which a small teaspoonful, properly diluted, may be given to a child six years old every three hours, allowing thus an hour and a half between the different medicines. When the membrane disappears, the iron mixture is discontinued, and an emulsion of cod-liver oil and syrup of lacto-phosphate of lime used till strength is restored. The liquor potassæ is continued as long as the membrane is present, and until the fever entirely gives way.

EXPULSION OF A LARGE GALL STONE.

(Dr. G. V. Dessauer, in Valparaiso. Vol. 66. Feb., 1876.)

A French lady had previously had several severe attacks of colic. When the doctor was called to see her she had been suffering again for a fortnight from colic and constipation, and had vomited almost everything during the last eleven days. Therapeutics had not influenced her. He noticed the presence of jaundice, and found a rapid pulse. The liver was enlarged, and a tumor of the size of a fist was observed in the lumbar region, while another one of about twice this size was situated near the bauhinian valve. His diagnosis was gall stone colic. The treatment consisted mainly in the application of eleven clysters, each of which contained six grains of opium. These were followed, until the next day, by copious stools, while the patient's state became better. A gall stone as large as a walnut was detected in the stools. Its base presented a single facette. By this the physician was induced to announce the passage of a second stone, which, indeed, occurred two days afterwards. Both stones fitted exactly together; and, if combined, they have the size of a small hen's egg. Before the second stone had passed there were given six clysters, containing, together, thirty-six grains of opiom. The patient made a quick recovery, and it is remarkable that no symptoms of intoxication were observed, in spite of the enormous dose of one hundred and two grains of opium administered to the patient within a few days. Prof. Virchow adds: that both stones were sent to him; that they consist of cholesterine and pigment; and, that the bile duct was not dilated, when the stones were passed, but that these must have caused an ulceration of the duct beforehand, followed by an ulceration of the duodenum. He remarks that stones of this size are rarely passed during life.

MEDICINE AMONG THE CHINESE.—In China there is no restrictive law in relation to the practice of medicine or pharmacy. Any one who chooses may begin the practice of either without preparation. As with us, medicine and

physicians are considered fair objects of pleasantry, satires and epigrams; nevertheless—as with the people of the Western nations—the Chinaman sends for the doctor on the slightest occasion.

When the physician reaches the patient's house, all the members of his family collect in the sick room, and the practitioner begins by consulting all the pulses of his client; then he gives his opinion upon the nature and gravity of the disease; but this opinion, far from being accepted without reflection, is discussed and commented upon by the entire family, including the patient himself. When they have finally come to an agreement, he informs them of the price of the medicines, and the probable number of visits which the case will necessitate, or he may undertake the case by contract. The fee for a visit, medicine included, varies from 15 to 60 cents. If the disease appears to be necessarily mortal, or that there will be small chance of escaping the danger, the patient resigns himself to his fate, and a fine coffin is bought and placed in his chamber where he can see it and thus console himself for having to leave this life —he will, at least, be sure of suitable obsequies.

When a patient has been, or believes that he has been cured, thanks to the care of his physician, he goes in great pomp to the dwelling of the latter and presents him with a black tablet a yard long covered with inscriptions in the following style: "Thou didst come, and my pains fled away like criminals before the judge!" "As the sun causes the snows to dissolve, so hast thou caused my disease to disappear!" "The gates of the other world opened yawningly before me, thou didst close them suddenly!" The physician is not slow in suspending these tablets of praise at the front of his house; they bear witness to his extensive practice and to the efficacy of his cures.

But back-biters assert that he does not always wait for his patients to come and decorate his house walls with these witnesses of gratitude, but that he paints enthusiastic inscriptions himself for the approaches to his door.

MICRO-PHOTOGRAPHS IN HISTOLOGY, NORMAL AND PATHOLOGICAL.

Messrs. J. H. Coates and Co., of 822 Chesnut street, Philadelphia, announce the commencement of a publication, with the above name, under the direction of Carl Seiler, M.D., assisted by J. Gibbons Hunt, M.D., and Joseph G. Richardson, M.D.

This publication is intended to replace the microscope, as far as is possible, for those physicians who have neither opportunity nor leisure to make observations with the instrument for themselves; and also to furnish microscopists, for comparison, correct representations of typical specimens in the domain of normal and pathological histology.

As the pictures are obtained directly from the microscopic objects by means of photography, and printed from the negative by a reliable mechanical process, they have the great advantage of being faithful copies of the pictures formed by the lens, and there is nothing produced that is not actually visible in the instrument, thus avoiding the diagramatic character and the subjective coloring which is so frequently found in drawings made by means of the camera lucida. In fact, the illustrations used in the lecture-room and found in books, are idealized so much as rarely to give an exact impression of the specimen as it really exists.

FRENCH MEDICAL NIGHT SERVICE.

To remove the inconveniences and hardships attendant upon night service on the part of physicians, the prefect of police of Paris proposes to establish a service similar to the one existing in St. Petersburg. He recommends the following arrangement, which will necessitate an addition to the expenses of the city of a sum of about ten thousand francs only. In every quarter medical men will be invited to declare whether they are disposed to attend to requisitions addressed to them in the night. The names and domiciles of those who may be willing will be inscribed on an official list, posted in the police stations of the quarter. The person who may require a doctor will go to the neighbouring police station, and will select from the list the name of the practitioner whom he desires. A police officer from the station will accompany him to the house of the medical man, will follow the latter to the house of the patient, and will, when the visit is over, re-conduct him home. On leaving him he will give him an order on the police treasury for *ten francs*. According to the pecuniary position of the patient the administration will reclaim the fees paid, or will assume the cost of them.

Dr. Portal (in *Bull. Gén. de Thérapeutique*, August 15th, 1875) relates three instances where chloral was successfully employed. Albuminuria was present in each. The first was attacked six hours after labor, the two others during parturition. One was delivered naturally, during the attack, of a still-born child; in the other case forceps were applied, on account of the pains having disappeared when the attack had ceased. The first had had twenty-four attacks, coming on regularly every quarter of an hour; the second eight; and the third seven attacks. Ninety grains of chloral were administered in each case. In the two latter, twenty-five milligrammes of morphia were also injected. All the patients recovered. In six previous cases treated by leeches and inhalation of chloroform, the author had six deaths to deplore.—*Obstetrical Journal.*

BORACIC ACID AS A DRESSING FOR WOUNDS, ETC.

This acid has been introduced as part of Lister's antiseptic treatment, but Dr. Cane of London, uses it also as a simple dressing, and finds that it is an excellent substitute for the antiseptic dressing, which cannot be generally employed in private practice on account of the lack of skilled assistance. Recent wounds, both simple and contused, heal with wonderful rapidity under its use. Dr. Cane uses a saturated solution made with boiling water, and lints of cotton wool soaked in this lotion and then dried, when the acid is copiously deposited in the fine flaky crystals between the fibres. The wound is first washed with the lotion, and then a pad of dry lint folded three or four times is laid over it and kept in position by pieces of strapping. The lotion proved most serviceable in a case of phlegmonus erysipelas, the part being frequently bathed with the lotion and kept constantly wrapped in linen cloths wetted in the same. As a dressing for old ulcers of the leg the boracic lotion and lint are cleanly, and healing takes place rapidly under its use sometimes succeding when all other applications have failed. For boils on the neck and elsewhere, the boracic lint is an excellent application; a piece large enough to hide the boil, covered with a piece of gutta-percha tissue, often gives great relief. A poultice made with the boracic lotion and Iceland moss is a capital and efficient remedy for carbuncles and other cases that require poultices. Lastly, the lotion and an ointment made by rubbing down one drachm of the acid with one ounce of simple ointment or benzoated lard, are often serviceable in pityriasis versicolor, tinea circinata, and other vegetable parasitic diseases.

Briefly to sum up the advantages of boracic acid

1. It is an *antiseptic which does not irritate and inflame*, and so allows the natural processes of healing to go on without much interruption.

2. It is exceedingly simple in its application.

3. It can be used in the shape of lotion, lint, cotton, wool, etc., in combination with most other methods of treatment.

4. Its cost is trifling.—*The Lancet.*, May 20th.

EMPYEMA AND THORACENTESIS.

In answer to a series of questions as to the treatment, causes, and sequelæ of empyema, Dr. Bowditch, of Boston, states that, although he cannot give the percentage of recoveries in his practice, he has up to this time performed thoracentesis 328 times, on 207 patients, and that none of his patients have died immediately, or in consequence of the operation. He explains the large number of deaths after the operation, in Europe, by the desire of the operators to do too much, and thus prolong the operation beyond the time proper for the patient. They desire to get out all the fluid that can be drawn. His own rule is to stop suction the moment the patient begins to suffer from *any uncomfortable* symptoms—stricture of the chest, severe harassing cough, etc. A mild cough is a favorable sign, as it indicates expansion of the lungs. This rule applies to all cases, whether serum, pus, bloody or fœtid fluid be found in the pleural cavity.

Dr. Bowditch asserts that nearly all children with empyema recover after thoracentesis. Adults with recent trouble are in a more favorable condition for recovery than when the disease is chronic. Sometimes after repeated operations phthisis is liable to set in. In such a case the repeating of the aspiration is a bad mode of proceeding. It is better, if after aspirating once, or at most, twice, a constant tendency to the re-accumulation of pus is found, to make a free and permanent opening. This may be made by means of a trocar and canula just large enough to admit the passage of a drainage-tube. Shorter canulas must be substituted for the one originally used, according as the cavity diminishes in size. A free incision is more painful, but is the better operation of the two. With regard to the subsequent treatment, as long as laudable pus is being thrown out, and the lung is expanding, and the patient is improving, Dr. Bowditch does nothing. He thinks that patients are often made worse by too much "washing out the cavity." If, however, the patient fails, has hectic, etc., he uses injections of warm water, which often produce the happiest results. He has not used carbolic acid, but thinks that it may be useful. Constant drainage is his rule. Where the fluid drawn is serous he prefers repeated aspiration to a permanent opening. If the serum be bloody at the first operation he never makes a permanent opening, for the case is then one of malignant disease. Empyema may occur in persons previously healthy; but a bad constitution is often at the bottom of the matter. As sequelæ, Dr. Bowditch has never met with Bright's disease or enlarged liver, but has met with tuberculosis and enlargement of the heart in a few cases. In these last cases, though the fluid did not reaccumulate, the lung never regained its free expansion, and after months of trouble the patients died suddenly with cardiac symptoms.—*Cincinnati Lancet and Observer*, June, 1876.

GLAUCOMA—TREATED BY TREPHINING THE SCLEROTIC.

Dr. A. Robertson (*Edinburgh Med. Jour.*, Feb., 1876,) has devised an operation suited to those cases in which an iridectomy could not be satisfactorily effected, or others in which it had failed to afford relief. The operation consists in trephining the sclerotic, thus making a circular aperture into the chamber of the vitreous humour about one-twelfth of an inch in diameter. The escape of some of the contents of the eye at once served to reduce the tension, while the author believed that this effect was probably permanent, as the circular opening in the scleroti must be filled up by new tissue having less resisting power than the original membrane, and would thus readily yield to pressure from within, acting the part of a safety valve, should at any future

time the contents of the vitreous chamber be increased in amount.

In four cases, Bowman's cornea trephine had been used. The objections to this instrument were the difficulty with which it penetrated the tough sclerotitic and with which it was held while making the necessary rotary movements. In all cases the aperture was made through the upper part of the sclerotic, at a point about two lines from the margin of the cornea.

LARGE CALCULUS.

The following account of a calculus of gigantic magnitude is copied from the preface, by a Mr. Gouge, to an old book of sermons by the Rev. Nicholas Byfield, Isleworth, who lived in the time of Queen Elizabeth and James I. The book was published, after his death, by the editor, Mr Gouge, to whom we are indebted for the details of this remarkable case, and is dated 1623.

"It appears that he carried a torturing stone in his bladder fifteen years together and upward. I have heard it credibly reported that, fifteen years before his death, he was by a skilfull chirurgion searched; and that, upon that search, there was a stone found to bee in his bladder; whereupon hee used such meanes as were prescribed to him for his ease, and found such help thereby, as he thought; that either the chirurgion which searcht him was deceived; or that the meanes which he used, had dissolved the stone. But time which manifesteth all things, shewed, that neither his chirurgion was deceived, nor yet his stone dissolved; for, it continued to grow bigger and bigger, till at length it came to bee of an incredible greatness. After his death, hee was opened, and the stone taken out; and being weighed, found to be 33 *ounces and more in weight;* and in measure about the edge, *fifteen inches and a halfe;* about the length, *above* 13 *inches;* about the breadth, *almost thirteen inches:* it was of a solid substance; to look upon, like to a flint. There are many eie-witnesses besides who can iustifie the truth hereof. A wonderfull work of God it was, that he should bee able to carry such a stone in his bladder, and withall to doo the things which he did."—J. M. WINN.—*Brit. Med. Journ.*, April 11, 1874.

ARREST OF CONVULSIONS BY THE SINISTRO-LATERAL POSTURE.

In *The Practitioner* of April, Dr. Fred. James Brown reports that he has seen two cases of convulsions arrested almost instantly by turning the patient over upon the left side. He says: "I adopted this procedure from experience of the good effects of this posture, both during chloroform inhalation, and subsequently in the stage of recovery from the anæsthetic. The profession owes a debt of gratitude to Mr. Bader, for first pointing out the advantages of this posture when danger threatens a patient under chloroform inhalation.

"A few months since, a man suffering from Bright's disease was seized with uræmic convulsions in my presence. I turned him upon his left side and the convulsions ceased instantly.

"Recently a man, aged 56 years, in impaired health from chronic catarrh, was seized with unilateral (right) convulsions. His consciousness and power of speech were intact. He had been convulsed for ten minutes when I entered the house, and he was growing worse. I turned him over upon his left side, and the convulsions ceased in about ten or fifteen seconds. He had experienced a similar seizure on Dec. 9, 1875.

"I hasten to report these cases, for I am certain that marvelous results will be obtained in convulsive diseases [possibly even in epilepsy] by sinistro-lateral posture. I conjecture that this form of posture acts beneficially by favoring the action of the heart, but I leave this question to physiologists."

CHLORAL AS AN EXTERNAL APPLICATION.

The disinfecting properties of chloral are often utilized in the treatment of wounds, or of cavities containing fluids that have a fetid odor. M. Sivedey adds to it tincture of eucalyptus, in the following proportions:

℞ Tincturæ eucalypti,
Chloral hydrat .....āā ʒ i.
Aquæ..... .....Oi.

This solution is very useful when employed daily as an injection in cases of empyema, of cysts that have been punctured, and in all other analogous cases.—*Journal de Méd. et de Chir.*, May, 1876.

—The following specimen of English, pure and undefiled, is from the Liverpool *Times:* "A doctor was lately summoned to a cottage at Harwood, in Teasdale, and found a boy in need of his services. 'Put out your tongue,' said the doctor. The boy stared like an owl. 'My good boy,' requested the medical man, 'let me see your tongue.' 'Talk English, doctor,' said the mother; and then, turning to her son, she said: 'Hoppen thy gobbler, and put out thy lolliker.' The boy rolled out his tongue in a moment."

THERAPEUTICAL NOTES.

PAINFUL MENSTRUATION.

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

R.	Pil. ferri carbonat,		℥ iij
	Ext. conii mac.,		℥ ijss
	Ol. cinnamom.,		*m*xxx
	Syr. tolutani,		℥ ij
	Syr. simplici,		
	Aquæ,	āā.	℥ vij. M.

Tablespoonful four times a day.

DIFFERENTIAL DIAGNOSIS OF CROUP AND DIPHTHERIA.—Dr. J. Solis Cohen, Medical Record, presents the following differences between croup and diphtheria:

CROUP.	DIPHTHERIA.
Non-specific in origin.	Specific in origin.
Never contagious.	Often contagious.
Not inoculable.	Inoculable.
Not of a dynamic type.	Of a dynamic type.
Usually sporadic.	Usually endemic or epidemic.
Rarely attacks adults.	Often attacks adults.
Always accompanied by exudation	Sometimes unaccompanied by exudation.
Fatal only by physical obstruction to respiration, whether directly or indirectly.	Often fatal without any physical obstruction to respiration whatever.
No depression of heart.	Marked depression of heart.
Pulse often strong and hard.	Pulse never strong and hard, even though quick and full.
Respiration more accelerated in proportion to the pulse: ratio rarely, if ever, less than one to four.	Respiration not accelerated in proportion to the pulse: ratio usually less than one to four.
Albumen rarely in urine.	Albumen often in urine.
Not followed by paralysis.	Often followed by paralysis.
Would bear antiphlogistics.	Would not bear antiphlogistics.
Rarely attacks more than once.	Often attacks more than once.

In addition to this, it may be mentioned that diphtheria, unlike croup, has never been thought due to excessive plasticity of the blood.—*American Practitioner.*

ADMINISTRATION OF SALICYLIC ACID.—In view of the many therapeutic uses of salicylic acid, it has become important to find a menstruum that will dissolve it in sufficient quantity. The ordinary solution in some alcoholic vehicle contains so much alcohol, that it cannot be given to children or to women; while, on the other hand, the caustic character of the acid prevents its administration in suspension in a mucilaginous fluid. M. Cassan, of Paris, believes that he has found the desired solvent in citrate of ammonia. While thirty grains of salicylic acid require an ounce to an ounce and a half of rum or cognac alone to dissolve them, if fifteen grains of citrate of ammonia be added to the acid, only two drachms of the spirit will be required to make the solution. The citrate of ammonia gives no unpleasant taste to the fluid. The following formulæ may be employed:

R. Acidi Salicylici, ℥ i.; ammon. citrat., ℥ ss.; spirit. vini Gallici, ℥ i.; aquæ destil., ℥ v. Or, for a single potion, R. Acidi Salicyl., grs. xv.; ammon. citrat., ℥ ss.; syrupi simp., ℥ i.; aquæ destil., ℥ iv.—*Bulletin Général de Thérapeutique.*

CHOLEATE OF SODA TO PREVENT THE FORMATION OF GALL-STONES.—Dr. William C. Dabney, of Charlottsville, Va., (*Am. Jour. of Med. Sciences*, April, 1876) relates the particulars of two cases of gall stone colic, and a third case of undefined biliary trouble, which were effectually relieved by the use of choleate of soda. He gives it, as advised by Schiff, of Florence, in pill form, on account of its insolubility and slightly bitter taste. It should be given in doses of about fifty centigrammes (7½ grains) twice a day, until symptoms of the saturation of the system appear. These are digestive troubles, irregularity of the heart's action, etc. In one case it *seemed* to cause nausea at first, but this soon passed off. Dr. Dabney thinks it highly probable that its use might be beneficial in some cases of enfeebled digestion, when the bile seemed at fault.

CONVULSIONS ARRESTED BY THE SINISTRO-LATERAL POSTURE.—Dr. F. J. Brown has seen two cases of convulsions arrested by turning the patient over upon the left side. One patient, a man, with Bright's disease, had uræmic convulsions which ceases instantantly after he had been turned upon the left side. Another man who had been seized with unilateral convulsions, was relieved in fifteen seconds after turning upon the left side. Dr. Brown's theory is, that this posture is in some way beneficial by favoring the heart's action.—*The Practitioner.*

TOOTH-ACHE REMEDY.—Mr. C. A. Guild writes to *The Clinic:* "In last week's issue you quote Dr. Lardier on collodion for tooth-ache. I have found collodion mixed with enough carbolic acid to form a jelly-like mass to be an excellent remedy for tooth-ache. About equal parts will form a "stiff" jelly, which may be taken on the end of a pine stick and placed in the cavity of the aching tooth. The pain will be relieved almost instantly if it depends on an exposed nerve. I have found this the most reliable and convenient remedy I ever tried.

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THE WESTERN HOSPITAL, MONTREAL.

From the inception of the movement having in view the establishment in Montreal, of a Western Hospital, we have kept our readers acquainted with its progress, and we propose now to give a brief history of the enterprise with which we have, from the first, been identified. The idea was conceived from the constant overcrowding of that noble institution, the Montreal General Hospital, and because it was felt by many that it would be folly to add more buildings to a group already spoiled by injudicious additions. A promise of $12,000 from Major Mills, a governor of the General Hospital, to put up a building, gave reality to the idea, and subscriptions were received for a ground purchase. At this time, the ideas of its promoters were moderate, and a small piece of ground was purchased. Consideration led to the belief that the location was not sufficiently distant from the other hospital, and its limits too restricted. As the ball rolled, and new friends joined the movement, earnest workers were not wanting. The whole matter was earnestly, and, we believe, thoughtfully discussed, and it was eventually decided, that the movement should be enlarged in its proportions; that the Corporation of the Western Hospital should secure a piece of ground in the extreme west of the city, sufficiently large to erect upon it a series of hospitals which, when all were erected, would be sufficient for Montreal for the next fifty years or more. This was decided upon, because it was deemed wise to secure the land when it could be had at a reasonable figure. The Committee into whose hands this matter was entrusted, were successful almost beyond hope. Just about the spot where the majority seemed desirous of placing the new hospital, such a lot was found—a complete block bounded on three sides by wide streets, and on the fourth side by a wide street and a park of several acres in extent—the block itself being within a fraction of three acres in extent. This ground was so universally approved of, that no difficulty was experienced in getting subscriptions to cover its cost, which was over thirty thousand dollars. This much having been accomplished, another look into the future was made, and it was decided that the architects, Messrs. Hutchison & Steele, should be asked to prepare a comprehensive plan for buildings, to cover the entire of the Hospital property, and so arranged that sections could be erected as desired. These gentlemen, for several months, made hospitals their special study, one of the firm visiting the United States and inspecting several new hospitals lately erected, while the Secretary of the Corporation, who was visiting England, undertook to visit, report and obtain plans of the latest erections in that country. The result of all this consultation and consideration was the production of the sketch, which we, with this issue, present to our subscribers, and which has received the unanimous and hearty endorsation of every person who has seen it. Indeed, it is admitted by all, that when the buildings are completed, Montreal will be in possession of hospital accommodation equal to any on this continent. The foundation stone of the first building, which is being erected by Major Mills, at a cost of about twenty-two thousand dollars, and which will perpetuate his magnificent generosity by bearing his name, was laid on the 29th of June. The attendance of both ladies and gentlemen was large, and embraced many of our leading citizens. The ceremony of laying the stone was performed by Major Mills, who used a magnificent silver trowel, which bore a suitable inscription, and was presented to him by the Governors of the Institution. Addresses were subsequently delivered by Major Mills, William Workman, James Coristine, and C. Peers Davidson, Q.C. The Mills building forms the extreme left of the first block of buildings, and will be recognised in that it is bounded by the four towers. The first or ground floor (there being a subbasement beneath) is arranged for Committee rooms, surgery, and the residence of the officers, while there are three stories above. Each story containing two wards. These wards, with three private wards, will give accommodation for fifty-five patients. The entire length of buildings embraced on the first block, will be about three hundred feet, while the second block will have a frontage on Atwater avenue of two hundred and seventy-five feet. In the centre is the administrative building, where the entire executive will reside, and where will be the offices of the institution, the operating theatre, and a spa-

cious lecture-room. This building will be connected with either block by means of covered corridors. The distances between each block will be fully two hundred feet, so that anything approaching crowding is avoided, and there will be ample room for air to circulate. It will also be noticed that all the wards will be lighted from both sides. Indeed, we need not dilate further upon the plans, for a glance at the sketch will enable the general plan which it is intended shall be followed, to be readily comprehended. We may add that the land upon which the entire of the first block (including Major Mills' building) is to be erected, has been completely paid for.

It is currently reported that a wealthy gentleman, who has shown much activity and zeal in the movement, will erect another portion of the first block, and that at a very early day.

"THE PUBLIC HEALTH JOURNAL."

In our May number we found fault with a proposal which was made by the Editor of the *Public Health Journal* to the Board of Health, to continue to publish the mortuary statistics of the City of Montreal, and supply them with a hundred copies of his "*Journal*" for a bonus of three hundred dollars per annum. We characterised the proposition as a cool and absurd one, and that we were not alone in our opinion, we may state that the *Canada Medical and Surgical Journal* styled it "A modest request." Some one—we presume the Editor, although he adopts the personal pronoun, and yet does not initial the article—has replied to our strictures in the June number of the *Public Health Journal*,. We are accused of being ignorant of the facts of the case, or, if not ignorant, for *private* reasons to have wilfully distorted them. Now, we ask our contemporary if the writer of its article does not exhibit in this accusation a little too much temper. What *private* reasons have we to distort the facts. We were neither suppliants nor competitors for the bonus. We had no interest in the matter beyond the fact that we believed the proposed expenditure was a useless one, and that the money asked for might be much more judiciously employed. We, of course, were not present at the Committee meeting at which the proposal was made, but took our information from the reports in the daily press, which are singularly alike, and which were not contradicted by our editorial friend. We likewise consulted both of our Health Officers, so that, we still believe our assertion to have been, in all its principal points correct.

"I," says "the Corporation * * * requested *us* to make an offer to them to furnish the same." This direct statement we would be sorry to contradict. We would, however, say that we are unable to find, in the proceedings of the Corporation or of its Health Committee, any evidence, authorizing any one to ask for a tender, for any such purpose. We fear that we must still believe that the idea originated with our contemporary, whose views are, to our mind, peculiar, if he really thinks that by publishing the Mortuary Statistics of Montreal, and giving the Health Committee a hundred or a couple of hundred of his journal, he would be honestly earning from the city $300 a year. Before he was "asked to publish them," he did publish them, so that the asking showed the asker was not a diligent student of his editorial friend's journal.

The remark that "because the circulation of the *Record* is far exceeded by the *Journal of Public Health*, the green-eyed monster has been aroused in our breast, is very silly. No one in in his sober senses would ever imagine that a medical journal, devoted to the interests of a *profession*, could have a circulation equal to one which appeals for its support to the whole reading population. We, of course, do not know what our contemporary circulates, but if it does not have ten times the circulation that we have, either the public lack interest in sanitary matters, or the *Journal of Public Health* has failed in evoking the sympathy and support of our thinking people.

As for the hundred or more copies of the *Journal of Public Health*, which we are told the Health Committee were desirous of getting, because they were thrown into the proposed bargain, we can only regret that such an amount of valuable material should reach a quarter where we have reason to believe the whole of it or at all events the major portion, will be useless. In saying this, we speak knowingly, and we strongly incline to the opinion that the one hundred copies of the *HealthJournal* which are supplied the Health Department, will before they are very old be sold to the butchers, under

the City Hall, for the purposes of wrapping paper. If our contemporary doubts this let him tell us what is done with them; we are anxious to know. The fact that the terms were reduced one half from the original offer does not alter the principle which is what we are contending against.

We have no "malice" against our editorial friend, but advise him to *retail* his journal to individual subscribers, and to avoid such absurdities as supplying Corporations with a hundred copies, for, in spite of all he can advance in its defence, the public will look upon it as nothing more or less than a *job!*

PURIFYING HOSPITAL WARDS.

Somewhat recently after an Epidemic of Puerpural fever in Bellevue Hospital, New York, the Wards were thoroughly purified; so completely was this done that on the Wards being opened and occupied by Surgical cases much less than the usual tendency to pyæmia and Septicæmia was observable. The system of disinfection consisted in closing the Ward and charging it with steam. Afterwards large leaden troughs were placed on the floor, and a sufficient amount of chloride of Sodium, black Oxide of Manganese, and Oil of Vitriol, added to disengage enough Chlorine gas to thoroughly charge the Ward

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MEDICAL ITEMS.

There are now in operation four Schools for the training of nurses, viz: two in New York, one in Boston and one in New Haven, Conn. Sir William Ferguson is suffering severely from symptoms indicating Emphysema of the lung and hypertrophy of the Heart, complicated with Albumenurea. Dr. Henry I. Bowditch of Boston has been elected president of the American Medical Association. Dr. Charles Fitzgerald of Dublin, has been appointed Surgeon Occulist to the Queen in Ireland, in place of the late Sir Wm. Wilde. The appointment is warmly criticised by the British Medical Press.

PHARMACEUTICAL ASSOCIATION OF THE PROVINCE OF QUEBEC.

The annual meeting of this Association was held on Tuesday, June 13, in Laval University at Quebec. After the reading of the minutes of the last meeting, the President, Mr. H. R. Gray, delivered a very interesting address after which he called upon the Secretary, Mr E. Muir, to read the annual report, and Mr. Kerry to present the financial statement. Mr. Mercer moved the adoption of the report, congratulating the members on the satisfactory position the Association had now attained. The motion was ably seconded by Mr. E Giroux, and supported by Mr. R. McLeod, of Quebec. Votes of thanks were presented to the retiring officers, and also to the Rector of Laval University for his kindness and courtesy in granting the Association the use of the rooms of the University for their annual meeting. The President having nominated Messrs. F. E. Gauvreau and E. Muir, scrutineers, they reported the following gentlemen duly elected as member of the Council for 1876-7 namely; Messrs. J. Kerry, E. Muir N. Mercer, J. Goulden, H. Lyman, E. Grioux, A. Manson, J. Hawkes. These, with the followlng who remain in office, namely, Messrs. R. H, Gray, J. D. L. Ambrose, R. McLeod, and T. J. Tuck, will compose the Council for the ensuing year.

At a meetting of the new Council, held on Tuesday afternoon, the following gentlemen were elected officers of the Association: H. R. Gray, President; Edmond Giroux (of Quebec), First Vice-President; Alexander Manson, second Vice-President; John Kerry, Treasurer; and E. Muir, Registrar and Secretary. The Board of Examiners elected are as follows; Messrs. H. R. Gray, N. Mercer, J. D. S. Ambrose, R. McLeod (Quebec), H. F. Jackson, A. Manson.

ONTARIO MEDICAL COUNCIL.

This body met in Toronto on the 6th of June and three following days, and transacted a large amount of business. As was to have been expected the accusations made against the Board of Examiners, for improper conduct at the last spring examination, came up for discussion and upon motion of Dr. Grant, M.P., seconded by Dr. MacDonald, a committee consisting of Dr. Brouse, Logan, Morrison, Bethune, Muir and Ross, were appointed to enquire into the matter. Upon the third day of meeting the Committee through its chairman Dr. Grant,

read the report which we publish below. We copy it and the remarks which follow it. from the Canada *Lancet*. In view of the report it is singular to say the least that Dr. Campbell Chairman of the Board of Examiners, should have written to the *Globe*, denying that there was any foundation for the rumors which were abroad. Even when the appointment of this Committee was under discussion in the Counsel Dr. Campbell is reported by the *Lancet* to have said "he wished the press who had circulated the scandal about the examiners to know, that it had not the slighest foundation. " We should like much to know what Dr. Campbell has to say now.

Dr. Grant, chariman, read the following: The Committee called various witnesses and made a full enquiry into the subject of the recent medical examinations, and beg to submit the following:—

1, The written examination was regular and satisfactory in every respect, except in the case of a German student, whose papers were passed in an irregular manner and contrary to the directions of the Council, although his standing was sufficiently high to enable him to qualify.

2. The chief irregularity was brought about in the oral examinations, owing to the unexpet ed absence (at the appointed time) of Drs. Bethune and Berryman, thus occasioning the delay complained of by the students. To obviate such in future, we would recommend to to the Council that a change be made in the examiners, being fully of the opinion that on so important an occasion the carrying out of the examination should be attended with promptness and regularity.

3. In future the students presenting for examination should be provided with an ante-room so as not to obstruct the procedings of the examiners by out side irregularities, such as experienced during the present examinations.

4. For the future your Committee would recommend that every possible care be taken to maintain the honor and dignity of the position, that every degree of justice be accorded to those coming forward for examination, and that no intercourse between examiners and students, such as would indicate the points of examination, should take place.

5. The examinations as a whole were satisfactory. Still, while regretting exceedingly that any irregularities should have taken place we are of opinion that the published accounts of such were considerably overdrawn.

6. in the performance of tho duty assigned your Committee, every opportunity was afforded all concerned to give such evidence, as would-in any way clear up the point at issue, and we fell satisfied that for the future your honourable Council will have no occasion to consider such irregularities.

Several gentlemen who had been members of the Board of Examiners asked permission at this stage of proceedings to withdraw, that the Council might have an opportunity of discussing the report fully and fairly. Dr. Brouse moved the adoption of the report. Dr. Allison opposed its adoption, on the ground that there was nothing in it. A very grave charge had been made through the public press against the examiners, anh he had hoped that the report would contain either express repudiation of the charges, or else censure those against whom the charges had been made.

Dr. Brouse thought that if the report was carefully considered, it would be found that the language was sufficiently pointed.

Some discussion followed, during which Dr. Berryman spoke at some length in his own defence, and concluded by saying that if he had a friend in the Council, he hoped that he would move that the clause referring to him be expunged.

Dr. Brouse replied that he hoped Dr. Berryman would not press the matter any further. He (the speaker) held evidence in his hand which if read by the members of the Council, would not induce them to make the report any milder, to say the least of it.. The report was adopted.

The attempt to appoint the examiners from outside the Council was lost 5 to 14. The financial condition of the Counsel seems to be satisfactory nothwithstanding its expenses are high. The Tresurer's account showed a balance on hand of over four thousand dollars.

LEGAL DECISION REGARDING THE REGISTRATION OF DRUGGISTS.

A decision of pharmaceutical interest was recently given in a case, Morin, *vs.* the Pharmaceutical Association of the Province of Quebec, in which the Plaintiff claimed registration

as a chemist and druggist under the Quebec Pharmacy act, 38 Vict., cap. 27. The defendants maintained that the evidence submitted to to them was insufficient to qualify plaintiff, and the Court "hearing the evidence, and looking at the spirit of the Act, decided that the defendants had acted as they ought to have done, and that the plaintiff had not held the position which entitled him to the benefit of the Act," and therefore dismissed the action, with costs. The Canadian Pharmaceutical Journal of Toronto says "We understand that a similar action will in all probability be brought against our Ontario Association, and this case may serve very opportunely as a precedent.

MICROSCOPIC PHOTOGRAPHS IN HISTOLOGY.

In our last issue we noticed the prospectus of this publication, and we now have to acknowledge the receipt of the two first numbers, April and May. The Photographs are really very beautiful and the letter press concise and to the point. To Physicians who are too busily engaged to devote much time to the microscope this publication will be very valuable. It is published monthly at Philadelphia, by J. H. Coats & Co.,—60 cents per number, or $6.00 a year.

PERSONAL.

Drs. A. B. Craig, A. Laramée and E. P. Lachapelle have been appointed Assistant Physicians to the Hotel Dieu Hospital, Montreal. Dr. Duval has been appointed Resident Physician or House Surgeon to the Hotel Dieu Hospital, Montreal. This is the first time such an appointment has been made, and in view of its necessity it seems singular it should not have been made long ago.

Dr. P. A. Shee, (C. M., M.D., Bishop's College, 1874) has removed from Quebec to Inverness, Megantic.

Dr. Cline has recovered from his attack of typhoid fever, and has proceeded to Tadousac, mouth of the River Saguenay, where he will pass the season.

Dr. Molson, B.A., Assistant Demonstrator, McGill College, has returned to Montreal from Europe.

Dr. Henry Harkin (M.D., McGill College, 1867) who for several years was surgeon on the Allan Mail line, has been in practice in Guelph, Ont., for two or three years. He was in Montreal during June. His many friends will learn that he is meeting with much success in the field he has selected for his future labors.

Dr. Strowbridge, (M.D., McGill College, 1862,) is in practice in Cincinnatti, Ohio, U. S.

Dr. H.L. Gilbert, (M.D., McGill College, 1875) and son of Dr. Gilbert, of Sherbrooke, passed his examination before the Royal College of Surgeons of England, in April last and received his diploma.

The following Canadian medical men, at present pursuing their studies in London, were, by special permission, present at the private game of Lacrosse, which was played, by request, before Her Majesty Queen Victoria, at Windsor Castle, on the 26th of June, by the Canadian Lacrosse team:—

Dr. Richard McDonnell (son of Dr. R. L. McDonnell), of Montreal; Dr. Herbert L. Reddy (son of Dr. Reddy, of Montreal); Dr. Ritchie, of Montreal; Dr. H. L. Gilbert (son of Dr. Gilbert, of Sherbrooke); Dr. Scott, Hull.

THE CENTENNIAL EXHIBITION.

With a view of showing all who intend visiting the Centennial Exhibition at Philadelphia, that that city is one of the healthiest of its size, the Bureau of Medical Service has issued a circular on its ratio of mortality, compared to London, Vienna, Berlin, Paris and New York. We must say that the quaker city makes a good exhibit, and stands at the foot of the list. Vienna comes first, showing a mortality of 31.42 per 1000, while Philadelphia is but 22.47 per 1000. We think there can be no doubt but that all who wish may, with an easy mind, visit the Exhibition.

VACANCY FOR A PHYSICIAN.

A vacancy exists for a Physician and Surgeon, at Gaspe Basin. A large tract of country, from Fox River to Perce, with a population of 10,000, is vacant. There are two Government grants, one of $100, and the other of $80, being respectively for Marine and Indian attendance. The opening is an excellent one, for a man who is willing to work. Apply, by letter, to John Short, Esq., M.P., Gaspe Basin, P. Q., or to the Editor of this Journal, enclosing stamp to pay postage of a reply.

Original Communications.

The Climate of Colorado, as experienced during the Winter of 1875–76. By RICHARD A. KENNEDY, M.D., &c., Professor of Surgery, University of Bishop's College, and one of the Attending Physicians of the Montreal Dispensary.

Read before the Medico-Chirurgical Society of Montreal, June 23rd, 1876.

Mr. Chairman and Gentlemen,—As physicians, the question of climate demands our serious consideration. We are frequently called upon to give an opinion in regard to a change of residence, not only to relieve suffering and prolong life, but, if possible, to restore to health and strength those who are apparently the victims of incipient disease. How often is the materia medica, as represented by drugs interrogated in vain, and we are forced to look for something beyond the remedies at our command, and suggest that our patient seek by a change of climate, that relief which hygienic and climatic influence affords. Considerable difference of opinion exists as to which climate is most appropriate in this or that case. This, no doubt, arises from the difference of theory which is, or may be, adopted, and not from an actual experience of benefits derived. I found it so in my own case, when ill-health compelled me to leave the city last fall. Florida was suggested by some of my friends, Colorado by others. Yet no two places probably could be found having more opposite climatic conditions than these.

Florida with its low altitude, semi-tropical climate, and an atmosphere containing a maximum amount of watery vapour.

Colorado, the highest portion of this continent, temperate climate, with an extremely dry and thin atmosphere.

On the one hand, an atmosphere capable of satisfying all the demands of respiration by the use of less than two-thirds the capacity of the lungs; on the other, a rare atmosphere, in which the lung cells are taxed and forced to expand to their utmost capacity to satisfy the same demands.

To-night I lay before you the results of my experience of the climate of Colorado, mostly gathered by personal observation, but also from the observation of others with whom I have come in contact, trusting that I may afford you some items of information in return for your patient attention.

Colorado has received its name from the prevailing red colour of its surface. Both rocks and soil are so highly impregnated with the red oxide of iron that the term red colour applied, by the early Spanish discoverers, distinguishes this peculiar feature in the landscape. The country was but little known until 1859, when the Pike's Peak gold excitement brought it under general notice, otherwise the beauty of the mountain scenery and the delightful and invigorating climate would, in all probability, have still remained a *terra incognita* to the debilitated invalid. The annually increasing numbers who there seek relief attest to the restorative powers the climate possesses, and in the near future it will, without doubt, become the great sanitarium of this continent.

A large proportion of the present population owe their existence to its health preserving atmosphere, and are loud in its praises. From many of these, formerly invalids, I gleaned considerable information.

As a means of contrasting our Canadian climate with that of Colorado, I would request you to recall to memory your experience of last January, and compare it with this verbal picture. Last New Year's day six Canadians held a pic-nic on the cliffs overhanging the Grand Canon of the Arkansas River, at an altitude of 8,000 feet above sea level. The temperature as registered by a thermometer 76° Fahr. The day was, as usual, bright and clear, with a cloudless sky, a cool and pleasant breeze blowing directly from the snowy range, tempering the heat rays of the sun. Here the wanderer, as he inspires health and vigor, has spread before him a grand and magnificent prospect, in which mountain and valley stands out with startling distinctness in the thin and translucent atmosphere. In the west, the serried masses of the snowy range dazzle the eye, as the brilliant sunlight is reflected from their snow-covered surfaces. Towards the east the plains are discernible fading in the mists of distance; while to the north and south innumerable mountains, with beautiful parklike valleys intervening, complete the view. These cliffs will be the point of pilgrimage for many an invalid and tourists, for below them lies the Grand Canon, presenting a scene of such imposing and terrific grandeur that the beholder is filled with awe as he gazes down into the profound abyss, of over 2,000 feet deep. The convulsions of past ages, aided by the eroding action of water, has here grooved out a channel, at the bottom of which the Arkansas river rushes with tremendous rapidity, enclosed in nearly perpendicular walls.

This description is introduced as an example of the many grand views to be obtained, which are not to be despised as means to stimulate to exertion, while they excite pleasurable emotion in the mind of the invalid tourist.

By referring to a map of this continent, the Territory of Colorado will be found to occupy the space between the 37th and 41st degrees of north latitude, the centre of which being the same degree in which the City of Washington stands. It is in this territory that the Rocky Mountains attain their greatest altitude and width, consequently the average elevation of the surface is much greater than elsewhere on the continent, being over 7,000 feet. Here nature culminated her greatest forces, and the many ranges of mountains remain as evidences of the terrible convulsions and volcanic upheavals which the crust of our earth sustained in past ages.

The immediate crest of the continent is the Main or Snowy range, flanked by numerous offshoots or foot ranges, which run more or less parallel, and between which are situated extensive valleys, each peculiar in climate and vegetable productions.

In the future it may be found that some are better adapted than others for peculiar cases; in my limited experience I came across a few cases which bear out this view.

By referring again to the map it will be observed that the territory is peculiarly situated, being far distant from any of the great sources of evaporation which supply moisture to the atmosphere. The nearest portion of extensive water surface is the Gulf of Mexico, 800 miles distant, and it is from that surface that the greater part of the rain which falls on the eastern slope of the Rocky Mountains of Colorado is obtained. On the eastern side of this continent the Appalachian chain of mountains, including the Blue ridge, Alleghany and Cumberland, form a barrier which withdraws from the atmosphere great quantities of its moisture, and before the air currents have proceeded westward to within 100 or 200 miles, of the Rocky Mountains the atmosphere has been deprived of nearly all its watery vapor. This 100 or 200 miles constitute the plains which are sandy and not very fertile, owing to want of moisture, buffalo grass and sage being about the only vegetable growths.

These plains gradually rise and merge into the foothills.

The Sierra Nevada of the Pacific slope acts in a similar manner on the western side of the Rocky Mountains as the Appalachian on the east. What little moisture is retained is attracted to, and condensed chiefly upon, the higher main range, and it is interesting to witness this condensation occurring and clouds forming as the air currents brought fresh portions of the atmosphere to be chilled against the highest peaks, forming flag-like streamers as they floated from each peak.

As the elevation of the country averages over 7,000 feet the atmosphere is very light, and incapable of retaining as much moisture as at sea level.

(At this elevation the pressure of the atmosphere is about eleven pounds to the square inch.)

It will, therefore, be understood why the climate is so dry and without dewfall at night, and, for the same reason why it is so warm during the day and cold at night. There being no watery vapors to intercept the sun's rays the earth's surface is quickly warmed, which as quickly cools by radiation as night sets in.

The peculiarity of its climate, therefore, is owing to its latitude, its distance from the sea, the great elevation of its general surface, and to the prevailing dryness of its atmosphere.

No just estimate can be made of its average temperature. Its surface is so diversified that much will depend on situation, but the mean average may be generally stated to be several degrees higher than that of Philadelphia for the north, and Baltimore for the south, in the same lines of latitude. Of course, the higher the elevation the colder it will be, and, in summer time, tourists or invalids remove to higher levels, and, as this can be accomplished in a few hours, the invalid can always manage to obtain nearly the same degree of temperature the year round.

I have, in the morning, left warm summer weather, and, in a few hours, have found myself in a bleak and wintry region, exposed to a driving snowstorm.

While the general winter temperature is much warmer than the same latitude east, the summer is much cooler, owing to the chilling effect exercised by the proximity of the snowy range.

It must not be inferred that no rain-fall occurs. In winter more rain falls in the northern than southern portions. The former being subject to occasional heavy snowstorms.

The rainy season proper, occurs in July and August, usually of short duration, and the rain falls in showers and not continuous. The soil is so dry and thirsty that moisture is quickly absorbed. As a change this rain is long wished for and welcomed, but, occasionally, it comes in a very undesirable form,

as storms which carry destruction before them. These storms are terrific; the lightning flashes continually, and the thunder rolls with deafening roar, while, as the cloud bursts on the mountain side, a torrent of water rushes with irresistible force through the steep gulches, carrying rocks, tons in weight, along with it. These torrents soon subside, and leave their channels as dry as they had been for months before. Their effect, however, must be seen to be appreciated, for they will produce changes which, otherwise, a continuous steady stream would not accomplish during a long period of time.

From the extreme dryness of the air and the great amount of mineral matter on the rocks, severe electrical disturbances frequently occur. Preceding a storm, tests show that a very large quantity of ozone has been generated. As this gas produces irritation and resembles chlorine in its properties, physical feeling corroborates the test. I could feel a storm many hours before it occurred on the neighbouring mountains, by the oppsessive sensation I experienced, as if a heavy weight had been placed upon the chest. This feeling would subside as soon as the electrical equilibrium was established, tests showing a lessened quantity of ozone.

Probably it is to the great amount of ozone generated in these high altitudes, due to a long continuance of dry weather, that the so-called epidemics of pneumonia occur, of which I will speak again.

As a result of this dryness, purity and rarity of the air, objects can be seen perfectly plain at immense distances. We are all accustomed to measure distance by sight, and form some idea as to the height or size of the object looked at. With others I have been greatly deceived in this respect, mountains appearing but a few miles away when, in reality, they were twenty or thirty. It is extraordinary this deceptiveness in regard to distance. Peaks sixty or a hundred miles away, being more distinctly seen than can Belœil from our Mountain Park.

Mineral springs abound everywhere, mostly alkaline in character, but some strongly ferruginous. The soil is so impregnated with alkali, that large patches of alkaline efflorescence are frequently seen, making the ground appear as if covered with snow. It consists of compounds, mostly sulphates, of soda, lime and magnesia.

Nearly all the water used for domestic purposes is strongly alkaline, and produces decided effects upon the system. Some forms of dyspepsia are relieved, others are aggravated, and acids, both free and in pickles, are instinctively taken. The various abnormal symptoms, generally coming under the term biliousness, are seldom met with, owing no doubt to the action of these alkalies in preventing torpidity or irregularity of action in the liver.

Like every other climate there are conditions which are unfavorable to some forms of disease. In cardiac affections if the derangement is merely functional, benefit will be derived, but should any organic disease be present, all the symptoms are aggravated, as the heart action is much increased and exercise cannot be well borne. This increased action, is of course, dependent upon the circulation through the lungs. As we rise above sea level the amount of oxygen in the air diminishes, and, as at great altitudes the density of the atmosphere is reduced, the quantity is still further lessened. At sea level a cubic foot of air contains about 130 grains of O, at 5,000 feet not quite 110 grains. The effect of this upon the lungs is two-fold. The air cells must become enlarged, with expansion of the chest walls, and the number of respirations per minute increased. This is what actually occurs, and until expansion has fully been accomplished the respirations remain quicker. Persons living in elevated regions thus gradually acquire a very large chest capacity. One other feature is often well marked with new comers, even in those with sound lungs; this is a sensation, as if sufficient air could not be drawn in, and involuntary and deep and prolonged inspirations are taken. This was my experience, especially at night during sleep, a time when the organic functions are slow in action, momentary wakefulness would occur and several profound inspirations taken.

Probably this deficient æration and the retention of carbonic acid, explains why so much sleep is required by the majority of persons new to the climate. I found, at first, that ten or eleven hours was not at all too much for me to sleep soundly, and others gave the same experience. The greater the altitude the more the necessity for profound inspiration is observed, but as soon as acclimatization occurs, they are no longer noticed. In persons employed at laborious occupations, as in the mines, at elevations of 11,000 to 13,000 feet, the amount of air inspired, even with quickened respiration, is not quite sufficient to purify the blood. After a time miners are obliged to seek lower altitudes, and recover, owing to a gradually increasing dyspnœa. Where death has occurred in these cases, post mortem examination has revealed ante mortem clots filling the pulmonary artery. The decreased oxidation

of the blood producing a stagnation in the vessel and favoring the deposit of fibrine. It is to this that pneumonia is a very fatal disease. A so-called epidemic occurred there this winter, but mostly above an elevation of 10,000 feet. The mortality, at first, was startling, being, I should judge, about 50 per cent. of those attacked.

Death occurred in some before the disease could possibly have reached an inflammatory stage.

In this way, a physician, druggist, and several others, died at Fairplay, within twelve hours of the onset, all within a few days of each other. Other cases, which survived longer, expectorated large quantities of blood; in one, two quarts of blood was thus brought up in a few hours. For some time previous to the outbreak, the weather had been exceptionally dry, thus predisposing the system to be affected by a change. The immediate cause of the outbreak was a sudden fall in temperature, with snow storms, at many points.

Here a small portion of lung becoming affected, would throw its functions upon the remaining, already doing full duty, the result being general congestion. Bleeding and antimony, at the outset, I believe, were the means of saving the first one who recovered, and many others. One would be led to expect that rheumatic affections would derive benefit; on the contrary, muscular and neuralgic rheumatism is very much aggravated, and acute articular rheumatism of frequent occurrence. Such cases are obliged to seek the lower valleys and take alkaline baths, before any benefit results. I have seen several who were completely crippled and obliged to come down to Canon City to find relief.

Nasal catarrh is another complaint frequently met with, and strangers suffering therefrom nearly always become worse. The lining membrane of the nose is nearly always in a dried state, especially in the warmer valleys of the south. The discomfort is increased at night, so that the mouth involuntarily opens during sleep to breathe. I have often woke up with my tongue as dry as a chip, and been obliged to chew it for some to get it softened again. The nasal mucus dries so hard that nearly every morning on blowing the nose, to get rid of it, a little blood would follow.

Children do well, and are seldom troubled with many of the ills which infantile flesh is heir too. Physicians and others have informed me that they have never known children to be troubled with worms. Scrofulous children are especially benefited, and teething seldom gives trouble. A question oft n arose in my mind as to what will be the constitutional condition of succeeding generations. As there are so many phthisical parents begetting children, and many of these will no doubt intermarry, the future will, of course, testify whether the climate will be sufficient to eradicate this hereditary disease from such off-spring.

No cases of sunstroke, as yet, have been reported. The quick evaporation from the skin being sufficient to equalize bodily temperature. Unless under severe exertion, sensible perspiration is seldom noticed.

What class of diseases is likely to be benefitted by this climate?

The absorption of oxygen is necessary for the healthy performance of the respiratory functions, but as I have shown, there is a lessened quantity, relative to bulk, in the atmosphere of great altitudes. It might be supposed that elimination of effete material by the lungs, would be retarded. The fact is established that mountain air promotes the formation of blood and aids nutrition by increasing the digestive and assimilative powers, while, at the same time it exercises a powerful stimulating action upon the nervous system. It is to these that recovery is effected in many chronic affections. The effect of mountain air is more permanent and beneficial than sea air, though not so rapid, especially in debilitated systems, where there is much nervous irritability and weakness of the organs of digestion and circulation.

The increased rarifaction of the atmosphere by removing pressure, diminishes the amount of gases in the blood, and this, with the great loss of moisture through the lungs, produces a decided effect on morbid conditions. A more active circulation through the lungs being produced.

In relieving certain morbid conditions of the lungs Colorado is fast acquiring for itself a well-deserved reputation. From personal observation, I believe, if there is any place where pulmonary consumption can be arrested or cured, it is there. Of course, many seek relief when it is already too late, and leave home and comfort to die in a strange land, and such cases affect the reputation of the climate unjustly.

I have seen such cases; one patient came under my care a few days after arrival. On examination both lungs were found to be completely diseased and in a state of softening, and although life, possibly, was prolonged a few weeks, yet, I consider it was criminal on the part of the physician who sent him, when there was not sufficient healthy lung left to carry on the functions of respiration. How many

enter that country but to die, is seen by the great amount of dead bodies carried back east over the different railways.

No reasonable man would expect that a climate could put new lungs into a patient, but many act as if they did.

It is astonishing, however, how some of these advanced cases receive a new lease of life, if there remain the least portion of healthy lung to carry on respiration. The disease appears to receive a check and remain in *statu quo*. Night sweats diminish or cease altogether, the cough becomes less troublesome, and expectoration lessens, and the loss by sputa is more than balanced by increased appetite and nutrition.

I have experience of two such cases.

On examining one, no possible hope could be given of even a temporary benefit. There was complete consolidation of the right lung, percussion eliciting universal hepatic dullness, and auscultation failed to detect any air entering beyond the larger bronchi. The chest wall remained passive on inspiration, and was much flattened. On the left side, auscultation revealed bubbling Ronchi over the whole lung, with signs of cavity at the upper part.

I did not suppose the patient could have lived a week, yet, under the continued application of flying sinapisms, with internal stimulants, the condition became greatly improved, and the right lung recovered its powers to a considerable extent. This case is an illustration of the danger of too sudden a removal from a low to a high altitude in these advanced cases. Here the small portion of healthy lung which remained to the patient was obliged suddenly to increase its action, and being unable to perform the requirements exacted of it, the non-purified blood became stagnated, and being continually augmented by the force of the pulmonary artery, pneumatic congestion resulted.

Possibly if this patient had gradually made his way upwards, this condition might not have come on. In such cases it has been found best to travel by waggon over the plains. A tedious process, which occupies some weeks, but one which many have tried with benefit.

The other case, which I recall to mind, had been living in Colorado for some years, had entered the country in an advanced stage, and had remained in the same condition ever since, always an invalid, but living with some comfort and able to take daily exercise and eat well. This man was originally associated with a party of six, who all had come for lung disease, and, at the time, was considered the worst off. Some of the party got tired of Colorado, went to California, quickly relapsed, and died there. Others tried Florida, with a like result, and he alone was left alive. Since my return, I have heard of him. Thinking he was well enough to travel east on a visit to his friends; he left there, but on arriving at a low altitude, and on his road, death overtook him. Here there is no doubt, death was directly due to a change of level, had he remained, life, in all probability, would have been still enjoyable for some time to come. I could enumerate other cases, but these will suffice as examples. It is a fact, well understood there, that advanced cases which enter Colorado, and improve, can never again with impunity leave it.

How many men have I met, all with the same story? To look at them, one could hardly suppose they had been victims of phthisis. No cough or expectoration, good appetites, and bodies well nourished. It seemed impossible that disease had ever attacked them, and that it was impossible for it to return.

But case after case has been cited me, where the disease, in just such persons, had broken out afresh on a return to their former eastern homes. In advanced phthisis, where but little lung is left, I should consider the climate of Florida or California better; but if there is a portion of the lung still left, and life sweeter than exile, Colorado is, I think, by all means the best. *Ubi bene, ibi patria*, where it is well with me, there is my country, should be the motto of such individuals. If, however, there is a necessity for returning, it would be better for such not to try Colorado, as the structural changes produced in the lung favour a relapse and accelerate the progress of the disease on a return to a low altitude and moister atmosphere.

In incipient phthisis, and where the disease has not progressed to any great extent, there can be no doubt but every benefit will be derived, and, in many cases, complete restoration to health.

How is this accomplished? Besides the general improvement to health occurring throughout the system, the direct local action affected is the chief factor. The air-cells undergo enlargement and their capacity increases. Does not this tend to loosen deposits formed on their surfaces and help to throw them off, while, at the same time, the dryness of the atmosphere prevents further exudation and deposit, promotes increased elimination of moisture, and induces a more active circulation through the lungs.

Of all the morbid conditions of the lungs, none receive more benefit than those in which hemorrhage is an urgent symptom, no matter what the cause. I have met with many persons who had suffered from repeated attacks of hæmoptysis previous to their residing in Colorado, but in whom there had been no return since. One medical gentleman has tried several times to resume his former position, but each time was forced to return, until now he feels it is useless to run any further risk, and, although he has been settled several years in Colorado, there has been no hæmoptysis or trouble since. In this case there was strong hereditary predisposition to phthisis.

It is not impossible, however, for hemoptyses to occur. I know of one death directly due to it, but the person had imprudently overexerted himself at a ball and strange to say no attempt was made to arrest the bleeding by remedies; other cases are reported but all might have avoided its occurence by ordinary precaution, why hemoptysis should be benefited, I am at a loss to understand, unless it is because there is lessened arterial tension, a smaller quantity of blood circulating through the arteres and more through the veins of the lungs; as other forms of hemorrhage are not easily arrested at high altitudes. I have been told that miners working on Mount Lincoln, about 14,000 feet elevation when severely wounded must be removed to a lower altitude before bleeding can be effectually arrested.

Post partem hemorrhages appear to be of more frequent occurrence judging from the number of cases I heard of, more especially in the more elevated valley settlements. Asthma when not depending upon inflammatory conditions of the bronchi is invariably relieved, but the precise elevation required varies in different cases.

I was consulted by a Canadian shortly after his arrival, who had long been troubled with asthma and chronic bronchitis, it was for relief of the cough that advice was sought, I saw him but once as he left for one of the higher valleys to live with some friends. There he was laid up for two months with acute articular rheumatism, on his return to Canôn, he again consulted me, the asthma very much increased and distressing. A more careful examination showed extensive emphysema of the lungs which had no doubt become very much aggravated by altitude and persistant bronchitis. If this condition had been recognized before being recommended to try Colorado, and the effect of altitude on the disease understood, much useless suffering and injury might have been avoided. Bronchitic affections are generally somewhat aggravated at first, but subsequently become entirely cured. Even old chronic cases that have existed for years are permanently benefitted. The morbid conditions mentioned are those chiefly benefited, but restoration to health occurs more rapidly in this invigorating climate than in other places, in constitutions broken down by debility or dissipation and especially after exhaustive fevers. A few more words and I will finish. There is nothing in Colorado which can ever attract a very large population beyond its climate and mines, and it is only in connection with these that any other resources can be rendered of value. The dryness of its atmosphere and uncertainty of rain-fall preclude all farming operations except where irrigation is available. Cattle breeding must soon reach a limit as the cattle require to roam over a large extent of country to find subsistance. It is on the mines that future progress depends and if these only prove one half in value of what is expected, that country will in the near future, not flow with milk and honey but will run such a stream of gold and silver as will deluge the world. I introduce this because we often see patients whose means will not permit them to remain in enforced idleness in a country where living is very expensive, and as life is sweet to all, there is many a young man who might be rescued from disease could he obtain sufficient employment to enable him to pay his way. To a great extent this can be done now, and there are many such who have left good situations in the East and now earn with increasing health sufficient to support them. To the consumptive invalid who has the means no better place can be found, outdoor exercise is always available. If a sportsman he will find plenty of game to attract him, if a geologist or naturalist, new fields to explore which will yet yield rich and rare specimens. If not inclined for these pursuits there remain to excite him to exertion scenery the most varied and grand, even developing new features as his standpoint is changed, It is not by stopping at Denver or other places where large hotels exist and staying about the same, that the greatest benefit is to be obtained, but by seeking the solitudes and wandering in the free untainted air away from the haunts of man that furnishes the best results.

There are but few days throughout the year that are not fine and bright, and the nights are cool and pleasant so that sound and refreshing sleep is always insured.

As to the locality to which patients should go,

much will depend on the season. In summer the Northern portion of the territory is most pleasant and cool, but the higher valleys of the south are equally so during the hot season. As it is likely that most invalids will leave for Colorado in the fall, I am decidedly of opinion that the southern portion of the territory is best, especially in the lower valleys which are enclosed in the mountains.

Denver, Colorado Springs, and other places situated at the junction of the foothills and the plains are not as favorable on account of being liable to heavy winds and snow storms. Pueblo further south is more favorable, but the place which far exceeds any other in climatic advantages for a winter residence is Canón City. This place is situated on the Arkansas River where the latter emerges from the mountains, and is enclosed on all sides by mountains and bluff upland so as to effectually protect it from very strong winds. Its altitude is 5,700 and during my residence there I experienced a continual summer. While the local papers recorded snow storms and rain at Denver and other localities we saw none at Canón and it certainly was remarkable that while we were basking in bright sunshine the railway about 60 miles off was blocked by ten feet of snow, stopping all travel for some days. This occurred last April. As yet the merits of the situation are not fully known, owing to the efforts of Denver and other places to keep tourists from going there by discouraging reports, but I have no doubt that soon its advantages will be understood especially as the newly built railway up the Arkansas valley carries passengers directly there.

One feature in regard to this place as a winter resort should not be overlooked, as showing that its climatic conditions are distinct from any other portion of Colorado, excepting Pueblo. I refer to its botanical productions. There are some sixteen (16) varieties of Cactus, four or five of which are not found growing native elsewhere in the territory and they are not met with again until the lower and more southern region of New Mexico or Arizona is reached. One variety grows in bush form to the height of five or six feet, often covering acres in extent. This certainly has some bearing upon the question of locality, for the seasons resemble those of New Mexico with the advantage of altitude and facility of travelling. I will close by briefly summarising the results of my experience. Advanced cases of phthisis should not be sent to Colorado, although some do tolerably well and have life prolonged, others have the end hastened, such should I think try the milder climates of Florida or California.

In less advanced cases, that is, on the advent of softening or previous to it, every advantage is to be gained but unfortunately though many such cases become to all appearance completely well, yet experience proves that in some at least this is delusive, the disease being kept in complete abeyance and not cured. Such persons are well so long as they remain in Colorado and may die of old age, but a return to lower and moister altitudes inevitably causes relapse and death. In incipient and threatened disease, especially if there is hereditary predisposition I believe a residence there, especially if prolonged, will effect an entire cure.

The suggestion has been made that I should append a few remarks regarding the expenses of travelling and living there. As this is a very important question to many invalids, I do so here.

Now that the new route up the Arkansas Valley from Kansas City is opened, travellers can go direct to the southern portion of the Territory. If desirous of going to Denver and the northern portion, the old route by the Kansas Pacific, from Kansas City, is best. By either route the fares are about the same. Through tickets can be had at any chief station and should always be obtained as they are much cheaper, and allow a reasonable time for stopping over at way stations. In going through no time is lost as the railway connections are splendid, an hour for changing being the utmost. I would have gone from Montreal to Denver in four days when I started, but owing to the G.T.R. having missed connection at Detroit by being an hour late we lost 24 hours.

First class railway fare through ticket, is $75, the same to return. If a Pulman is taken only three changes are made en route, a whole section cost $24, but a half section is sufficient for one or two persons. I would advise taking a Pulman car as the extra cost is small compared with the comfort. Good meals are obtainable all the way at from 75 cents to a dollar per meal. In this way the expenses en route to Colorado are within $100.

In Colorado good hotels are found at all points, terms, $2.50 to $3.00 per day, if transient, $12 to $15 per week if permanent; good private board can be obtained for $9.00 per week and possibly less.

I would suggest, if leaving in the fall, going direct to Canón City and winter there, and if returning in May (earlier is not advisable) to return by way of Colorado Springs and Denver, by so

doing the chief places of interest can be visited and the tourist will see a great deal of the country and much magnificent scenery.

Such clothing should be taken as is worn in Canada during the fall, especially under flannels and over clothes, the latter will seldom required, but there are occasions in which they will, be especially in travelling. Let the invalid going there be content to enjoy the climate and scenery while he regains health and he will find I have not overdrawn the picture, but if he is like some I have met with, forever grumbling at trifles, he may be disappointed, for such would not be happy in paradise. Colorado is now a State.

Two Cases of Poisoning, by Oil of Cedar. Reported by F. Charles Laurence, C.M., M.D.

On the evening of the 14th July, 1873. I received a very urgent message to visit immediately P. M., of Dudswell.

On arriving at the house I found my patient suffering from severe convulsions resembling strongly in character those produced by the administration of strychnia in poisonous doses.

Patient was a farmer, aged 35, of temperate habits, family history good, except some indications of insanity on mother's side, general health good; was, however, at the time, suffering from indigestion, and was under treatment for same.

I made up my mind I had a case of poisoning to deal with, and upon closely examining the patient I detected a strong odor of oil of cedar in his breath. On enquiry, patient's friends denied having any in the house, which fact, I soon afterwards found, to be a *mistake*.

The convulsions were very severe in ch racter, with scarcely any intervals between, so violent, in fact, as to require the united efforts of several strong men to hold him on the bed.

Pupils of eyes dilated, and not responding to a strong light, pulse frequent and irregular, and body bathed in a profuse prespiration.

Having made several attempts to give an emetic of zinci sulph., with the effect each time, apparently, of bringing on a more severe paroxysm, I decided, as the case was becoming more urgent, to administer chloroform in sufficient quantites, to produce partial anæsthesia, and in this way break up the paroxysms.

After some difficulty, owing to the excited condition of my patient, I succeeded in stopping he convulsions, and in a few moments more, violent emesis took place, and the vomited matter consisted of a greenish fluid, containing mucus, blood, ingesta, and as near as I could judge, about ℥ ss. of an oily substance, resembling in odor and appearance, oil of cedar.

The patient being now able to swallow, I kept up the emesis by administration of warm water and olive oil, in order to not only wash out the stomach, but to soothe the irritated mucous membrane of the stomach and œsophagus, by means of the oil.

Midnight.—No return of convulsions, patient quiet, but complains of a sense of burning in stomach, pupils normal in appearance, feels an inclination to sleep.

July 15th, 7 a.m.—Rested tolerably well since 3 a.m., symptoms of gastric irritation still present, headache, pulse 115, regular, inability to retain on stomach even small quantities of cold water, urine scanty, high colored, voided with difficulty and considerable smarting, patient remembers nothing of last night, says everything is a *blank* since yesterday 3 p.m.

Treatment.—To swallow small pieces of ice every ½ hour, also lime water and milk in small quantities.

Noon.—Patient very restless and gastric symptoms still present. Same treatment, also ¼gr. morph. acet placed dry upon tongue, bowels to be moved by enemata.

8 p.m.—Bowels moved about 3 p.m., stools liquid, dark color and very fœtid. Ice and ime water and milk to be given during night, and morphia ¼gr. if restless. Has not vomited since noon.

July 16th. 9 a.m.—Passed a pretty comfortable night, gastric symptoms less severe, pulse 105. Same treatment as yesterday, omitting morphia.

9 p.m.—Patient sleeping, vomited once since morning, urine still scanty and passed with pain.

July 17th, 10 a.m.—Gastric symptoms much improved, urine passed with more ease, bowels moved spontaneously, and he rested well during night, at least since midnight. Feels very weak, ordered a little cold beef tea in addition to lime water and milk.

July 18th.—Much improved in every respect. From this time patient steadily gained, and in about a week from this time was able to leave his room. He now confessed to have taken the

oil, and, judging from the appearance of bottle found in the house on the night of my first visit, I think he must have taken nearly ℥ss. I suspected he had taken it with suicidal intentions, and warned his friends accordingly, which conjecture was seemingly verified, for singular to relate, on the evening of the 14th July, 1875, after an interval of two years, almost to the hour, he again made a desperate but unsuccessful attempt to destroy his life, by wounding the throat, and stabbing himself in the side.

My second case was a child 2½ years old, quantity taken about ℥ij. Before I reached the house an emetic had been given, and my little patient was quite easy, but I was informed that the convulsions were very severe until the emetic had acted. Symptoms of gastric irritation followed, but subsided in a few days under appropriate treatment.

Oil of cedar is obtained by distillation from the tops of the common red cedar, *juniperus virginiana* and resembles in order and appearance, the oil of Savine.

It has the reputation of being used frequently in rural districts, to procure abortion, and is used both externally and internally, by *rural quacks* for many disorders, and in this locality can be found in nearly every house. The great wonder is that more cases of poisoning do not occur from it.

I take the liberty of submitting to the Profession through the Record, the report of these two cases, and although they may be not uncommon in some parts of the country, they are the first I have ever seen or heard of in this portion of the Townships.

Marbleton, Wolfe Co., P. Q.,
July 5th, 1876.

Progress of Medical Science.

PUERPERAL SEPTICÆMIA.

By Hugh Miller, M.D., Fellow Obst. London Soc., Physician-Accoucheur to the Glasgow Maternity Hospital.

The following notes of an epidemic which attacked the patients in the hospital during the month of January last are submitted as a contribution to the recent interesting inquiry into the existence of puerperal fever as a zymotic disease. The confinements followed so closely one upon the other that six patients were brought under the influence of the infection before rigid measures could be adopted for stamping it out. I am indebted to Mr. Thompson, the house surgeon, for the reports of the cases of which I present the following brief details:—

I.—M. C., aged twenty-four, was near her full time when admitted to the hospital on the 19th of January last. Eight years ago she was attacked by scarlatina, and since then she has been weakly and delicate. Her first confinement took place on 19th October, 1874. She was in labor, she says, for five days. The child was stillborn. Her recovery was favorable till the fifth day, when her left leg became swollen. Under treatment it improved, but it has felt weak, and has remained swollen since. During this pregnancy she has been almost free from any sympathetic derangement, and her general health continued good until two days ago when she sustained a shock from a severe fall in the street. When admitted she was in labor, and on examination it was found that the head was presenting along with the funis. The cord was pulseless. Eighteen hours after admission she was delivered of a male child, still-born, and evidently of a syphilitic taint. After waiting two hours the placenta was found to be adherent. The usual means were employed for its removal, and it is believed that it was entirely taken away. During the next few hours, the patient did well, and appeared as if making a good recovery. Without being preceded by a rigor, a sudden rise of temperature was observed fifteen hours after childbirth, and on examination it was found that the temperature was 103°, and that her pulse had risen from 90 to 160, and was dicrotous. She complained of severe pains in her legs and arms. The uterus had not enlarged and the lochial discharge continued. In my absence Dr. Sloan kindly saw her, and ordered her to have half a drop of the tincture of aconite (B. P.) every hour, and with the first dose to have also a mixture of sweet spirits of nitre with liquid acetatis ammonia. Next morning the temperature was 101° and the pulse 120. An erythematous rash was now observed over the lower limbs. She had no sore throat, but she complained of a harassing laryngeal cough. Her tongue was furred and dry, but it did not present any specific febrile character. She was not aware of being near any case of scarlatina recently. Directions were given to have the diaphoretic mixture repeated with a dose of Batley's sedative liquid added to it. In the evening the temperature and the pulse were unaltered, but she felt more exhausted and was allowed small quantities of whisky at intervals. A solution of the chlorate of potass was given to allay thirst. Next morning at 8 A. M. the temperature was 99° and the pulse 96. By the same evening her general condition had been greatly improved: with the exception of the cough, which was frequent and very harassing, she had nothing to complain of. The cough gradually improved under the use of tartar emetic and tincture of hyoscyamus. That night she slept well, and next morning the temperature was normal. The pulse was 90 and weak, and the patient expressed herself as feeling much improved. Next day she

was free from any unusual condition, and two days afterward she was dimissed quite convalescent.

II.—On the 20th, the next day, M. H. was admitted; she was confined that evening of a stillborn child, which appeared to have been dead for some time. On the 22d I found her suffering from acute peritonitis, which did well under the treatment with turpentine stupes and Dover's powder. She left the hospital eight days after admission, quite recovered.

III.—On the same day A. B. had in every way an easy labor; next day she had a rigor followed by febrile excitement with pain over fundus uteri, and with a scanty and purulent discharge. The patient received similar treatment to that given in Case II., and, in addition, after a consultation with Dr. J. G. Wilson, the consulting physician of the hospital, we ordered the intra-uterine injection of a solution of chlorozone. On the 9th of February she had quite recovered, and left the hospital.

I directed that all the patients should now have the bisulphite of magnesia regularly. These three patients were to be placed in one ward, and new cases were to placed in another room. The next case was admitted on the 24th of January.

IV.—A. McD., a primipara, was the next case admitted. She was delivered of a still-born child. The placenta being retained was removed by introducing the hand forty-five minutes after the birth of the child. She was then removed to a freshly disinfected recovery ward. In due time she exhibited similar symptoms to Case III.; she received identical treatment, and recovered sufficiently to leave on the 9th of February.

V.—G. H. was delivered about the same time as Case IV. She was put in the same recovery ward, suffered from similar symptoms, and recovered under the same treatment.

VI.—J. McD., a primipara having a weak intellect, was seized after her labor with a similar train of symptoms, which, however, were more intense. She received the same treatment as the others, and was able to leave with them on the 9th of February. So many cases occurring within a few days and presenting similar symptoms led me to seek for the exciting cause in the state of the hospital itself. I was satisfied that the wards had been kept scrupulously clean, that strict attention had been paid to the ventilation, and that every opportunity had been seized for fumigating the wards with burnt sulphur or with carbolic acid. The beds are made up of chopped straw, and are frequently renewed. On admission the patients themselves had always to submit to a hot bath including a good wash, and they have a comfortable change of clothing provided for them. The nurses could not have been the means of transmitting the vitus, for new nurses were appointed to wait on the fresh cases admitted without the patients (IV., V. and VI.) being freed from the influence of the infection. It appeared to me that if any infecting influence was present it must have its origin in the confinement ward. I ordered therefore the bedding to be destroyed. The room was thoroughly disinfected, and after being well cleansed, new beds were put in, and patients again admitted. The hospital record says that "since then the patients are making excellent recoveries."

Many questions arise in one's mind while endeavoring to account for this rapid spread of disease. Could miasmatic influence produce it? The patients were kept only an hour or two at most in the confinement ward before their removal into the recovery one. Thorough ventilation meanwhile had been maintained, and every sanitary means employed to protect the mother and her offspring. Supposing even that the earliest taint had been produced there, was it posssible in such circumstances to become so virulent as to affect each succeeding case? In labors similar to No. I. we find the poisoned condition of the blood a result of the absorption, and not a precursor of the disease. Indeed, as an example of auto-infection (Schroeder) due to a portion of the placenta becoming poisonous, and of afterward being absorbed, Case I. should have been very slow in developing and infecting material. Previous to the admission of Case I. the wards of the hospital were healthy.

These records will at least demonstrate how easily and how rapidly a puerperal epidemic can spread. Whatever influences may be at work to originate the poison, it evidently requires only a nidus that it may spread rapidly. Especially do we find this to be true in hospital experience. I am of the opinion that in all cases where manual interference may be necessary it is our duty to exercise extra precaution against septic poisoning: and that where interference is necessary we should employ a disinfecting solution soon after delivery to the vaginal and intra-uterine regions. Thus the parts will be kept clean, and the discharges prevented from taking an unhealthy action, or of acting by absorption through the lacerations frequently produced by childbirth. —*Obst. Journal.*

THE THERAPEUTICS OF HEADACHE.

A Lecture delivered at Bellevue Hospital Medical College, by A. A. Smith, M.D., Lecturer Adjunct upon Clinical Medicine. (Phonographically reported by Dr. W. M. Carpenter.)

GENTLEMEN:—We take up to-day the therapeutics of certain forms of headache, a very important subject. Headache may be divided into organic and functional; but I believe you will get a better idea of the treatment by dividing the cases according to the causes.

You will remember we took up purely neuralgic headache at the last lecture.

A headache, when due to nervous disturbance, such as occurs in hysterical or excitable subjects, if associated with plethora, often yields to a saline cathartic. The most agreeable is the solution of citrate of magnesia, and should be given, a full bottle of it, on an empty stomach. In addition it is well

to give one of the bromides combined with valerian. The following prescription I frequently use:

℞ Sodii bromid..... ℥ vi.
Elix. valer. amm..... ..... ℥ iv.
M. Sig. ℥ i. every hour until relieved.

If such nervous headache be associated with anæmia, after relieving the immediate attack with the bromide and valerian prescription, give iron, and give it for weeks, until there is a decided improvement in the patient's condition. Always give the iron after meals. In these anæmic cases it is often advisable to stimulate the heart's action. For this purpose I have found the following useful:

℞ Amm. muriat..... .... ℥ ss.
Tinct. actaeæ racemos.,
Aquæ.....āā ℥ iij.
M. Sig. ℥ ij. after meals in a wineglass of water.

If there be despondency and depression of spirits, phosphorus, with nux vomica, is a good combination. The unpleasant taste of the phosphorus has been overcome by being made into sugar-coated or gelatine-coated pills. I frequently prescribe a pill containing phosphorus gr. $\frac{1}{50}$ with ext. nux vomica, gr. $\frac{1}{2}$ t. i. d., with the happiest results. These pills can be obtained of any reliable druggist. This despondency is apt to occur in those who have been overworked mentally, or are harassed by business cares, or who suffer great mental anxiety. If in addition to these symptoms there be sleeplessness, I employ the following pill:

℞ Camph. pulv..... ... .gr. xxv.
Ext. cannab. ind.....gr. x.
Ext. hyoscyami..... .....gr. xx.
M. Div. in pill No. x.
Sig. One at night. Repeat in two hours if necessary to produce sleep.

It is important to attend to the general health of the patient. Remove all causes of excitement; encourage exercise in the open air; let the food be simple but nutritious; let the sleeping room be large and well ventilated; in short, let the patient be surrounded by the best possible hygienic influences. These general remarks will apply to almost all forms of headache.

SICK HEADACHE.

I usually recognize two forms of sick headache (so called), the one neuralgic in character, as hemicrania and trifacial neuralgia, the other a dyspeptic headache. In the neuralgic variety the pain in the head precedes the nausea, while in the dyspeptic variety the pain in the head succeeds the dyspeptic symptoms. In the neuralgic, vomiting does not relieve the pain, while in the dyspeptic an emetic or laxative often relieves the pain in the head by removing the cause. In addition to the treatment given in a previous lecture for neuralgic headache, which, often occurs at intervals of a few days, or a week or two, sometimes coming on at sunrise and disappearing at sunset, I have good results from the use of guarana, or paullinia sorbillis as it is sometimes called. I give it usually in powder, grains fifteen every fifteen minutes, until six doses have been taken. It is best given in a little sweetened water; and if six doses do not relieve do not continue it; it will probably not relieve. It is well to give these powders in any headache (not malarial) of long standing and prone to return at certain intervals.

MALARIAL HEADACHE.

Malarial poison may produce pain in any portion of the head, but the most frequent locations are the sub occipital region, the frontal and on either side (hemicrania). Begin your treatment by the use of quinine. If distinctly periodical, give ten or fifteen grains two or three hours before the expected attack. It may be necessary to push the quinine in divided doses until cinchonism is produced, and kept up for several days, and then gradually diminish the dose. If the pain still continues to recur, and it frequently will, resort to arsenic and belladonna, five-drop doses each of Fowler's solution and tincture belladonna, after meals, increasing the Fowler's one drop each day until œdema arsenicalis is produced. This will seldom fail to give relief.

I have found the following prescription beneficial in a headache dependent on gout:

℞ Vin. colch. sem..... ℥ iij.
Lithii bromid .... ℥ ss.
Syr. zingib..... ..... ℥ ss.
Aq. cinnamonii, q. s. ad..... ..... ℥ vi.
M. Sig. ℥ ss. in a tumbler of Vichy water every four hours.

Such patients will be benefited by the regulation of the hygiene, tonics, a partial discontinuance of stimulants, particularly those which have been found by experience to aggravate the gouty symptoms.

It is hardly necessary that I should tell you that the headache of syphilis is more severe at night, and is quite apt to waken the patient after twelve by its increasing severity. The use of calomel in one-tenth grain doses every hour, for twelve hours immediately preceding the time that it awakens the patient, gives more rapid relief than the ordinary constitutional treatment. The calomel treatment may be continued for two or three days, and then stopped and iodide of potassium given. I usually begin the iodide in fifteen-grain doses after meals, and gradually increase it until iodism is produced or irritation of the stomach occurs, provided the symptoms do not yield earlier. It may be necessary to push it to 350 or 400 grains a day before the symptoms yield.

The headache of rheumatism is characterized usually by tenderness of the scalp, which is increased on pressure or motion. Use the mild faradic current on the scalp, and internally the following:

℞ Potass. iodide aa ℥ss.
Amm. muriat.....aa ℥ ij.
Infus. humuli..... ℥ vi.
M. Sig. ℥ ss. four times a day in a wineglass of water.

In some cases of rheumatic headache, which have not yielded to the above treatment, I have found bromide of ammonium in twenty-grain doses every two hours effectual.

There is another form of headache which is of great importance as a symptom of serious disease. The pain in the head may be the first evidence you will obtain that there exists renal disease, and that you really have to deal with uræmic headache. The judicious plan of treatment in such cases has for its object the removal of the abnormal amount of urea from the system. To accomplish this, you may call into action one or all of the three great emunctories of the body, the kidneys, the intestines, and the skin. Make the kidneys act if you can; apply dry cups over the region of them, and give internally the following:

℞ Potass. acetat ..... ℥ vi.
Infus. digitalis..... ℈ vi.
M. Sig. ℥ ss. q. 3 h.

The infusion should be made from fresh English leaves. Give this until the kidneys act freely, if you can make them do it within twenty-four hours. You cannot always rely on this, however. If the kidneys do not act freely, and the headache is not relieved within twenty-four hours, give a saline cathartic. A treatment almost domestic, and often very effectual, is to put an ounce of cream tartar in a quart of water, and have the patient drink this in eight or ten hours. It acts both as a diuretic and cathartic. Do not use hydragogue cathartics unless convulsions are threatened, they are too irritating to the intestinal canal. Some prefer to eliminate the urea by the skin. This can be done by diaphoretics and the hot, moist, or dry air bath. Do not think that you must use diuretics, cathartics, and diaphoretics in all cases of Bright's disease: use them where there is deficient quantity of urinary secretion, and where you have reason to believe urea is accumulating, and that you can relieve the patient by ridding the system of it. There are other causes of headache in Bright's disease which I believe occur independent of the presence of an abnormal amount of urea in the blood, and yet which are dependent on the results of the kidney disease. These causes may be anæmia, neuralgia, œdema of the brain itself, serous effusion into the ventricles and, in acute Bright's disease, or cerebral congestion in addition to accumulation of urea. Under the last condition, if the headache be very severe and convulsions threaten, take blood, if the patient's condition will admit of it. Take twelve to twenty ounces, if necessary to relieve distressing symptoms. The best way to take it is by means of wet cups over the region of the kidneys.

If the patient be anæmic, improve the general condition by the use of tonics, good nutritious diet, stimulants, excercise in the open air, etc.

If the headache be dependent on serous effusion into the ventricles or on cerebral œdema, here too improve the vitiated condition of blood and stimulate the heart and kidneys by potass. acetate and infus. digitalis. There is apt to be with this effusion and œdema general anasarca.

The headache of acute alcoholism, or inebriety, follows a debauch. The first indication is to remove the alcohol from the intestinal canal. For this give of rhubarb and magnesia calcined each a half drachm, and then give the following:

℞ Spts. amm. aromat..... ℥ ij.
Tinct. camph..... ℥ iss.
Tinct. hyoscyami .... ℥ iiss.
Spts. lav. comp. q. s. ad ..... ℥ ij.
M. Sig. ℥ j. q. 1 h. until the headache is relieved, and then give capsicum gr. ij. and quinine gr. iij. before each meal for several days. If there be sleeplessness, give,

℞ Sodii bromid..... ℥ ss.
Chloral hydrat..... ℥ iiss.
Syr. aur. cort..... ℥ ss.
Aquæ..... ..... ℥ iiiss.
M. Sig. ℥ ss. at night, repeat in two hours if necessary to produce sleep.

Dyspepsia is a frequent cause of headache.

If there is indigestible food in the stomach, and it has been there some time, give an emetic, as mustard and warm water, or sulphate zinc gr. xv., and remove it. If there is evidence of indigestible food in the alimentary canal beyond the stomach, give gr. xx. of rhubarb and magnesia each, and remove it from the bowels. If the headache be frontal, and the pain is located immediately over the eyes, give dilute nitromuriatic acid in ten-drop doses, well diluted, after meals. If the pain is located about the roots of the hair, give an alkali before meals, as gr. xx. bicarbonate of soda or magnesia. The dyspeptic headache oftentimes is not confined to these regions, but spreads over the entire head. In such cases I combine an acid with an alkali, and add to these nux vomica, as in the following prescription:

℞ Sod. bicarb..... ..... ℥ iiss.
Ac. nitro-mur. dil ..... ℥ ij.
Tinct. nuc. vom..... ℥ iss.
Syr. aurant. cort..... ℥ vi.
Aquæ, q. s. ad..... ℈ vi.
M. ℥ ss. after meals in a wineglass of water.

If there be gastric pain, a mild counter irritant, as a mustard plaster to the epigastrium will often relieve the pain in the head as well as the pain in the stomach. If flatulence be a troublesome symptom, give the following:

℞ Bismuth subcarb..... ℥ iss.
Tinct. nuc. vom..... ℥ iis.
Tinct. card .co.,
Spts. lav. comp., aa q. s. ad..... ℥ iv.
M. Sig. ℥ ij. before meals in a wineglass of water.

If there be constipation, the following pill may be given, one in the morning:

℞ Aloes pulv..... ℥ ss.
Ext. nuc. vom..... gr. v.
Ex. belladonna ..... gr. iv.
M. Div. in pil. No. xv.

In some forms of headache associated with stomach indigestion I have found small doses often repeated of tinct. nux vomica effectual. I give a single drop every fifteen minutes, and continue this two or three hours if necessary. In other cases, where the headache comes on soon after a meal and seems to depend on delayed stomach digestion, large doses of

pepsin are effectual. Give a half drachm saccharated pepsin in a wineglass of sherry wine, t. i. d., and let it be taken during meals.

Cerebral congestion as a cause of headache may be divided into two varieties, active and passive. These claim almost directly opposite plans of treatment. In the active variety the patient should be kept in a darkened room, perfectly quiet, cold and evaporating lotions applied to the head. A saline cathartic may be given, and the following prescription:

R. Sodii bromid ..... ℥ iiss.
Fl. ext. ergot ..... ℥ iiss.
Syr. zinzib ..... ℥ ss.
Aq. aurant. Flor. q. s. ad ..... ℥ iv.
M. Sig. ℥ ss. q. 2 h.

If the skin be hot and dry, and the pulse full and rapid, give Fleming's Tinct. Aconit. Rad. gtt. ii. q. 2 h. until the heart's action is sensibly diminished. Sometimes a hot mustard foot-bath will give relief.

The passive congestive variety demands a different mode of treatment. In many cases this variety is found associated with cardiac disease, and most frequently where there is predominant dilatation. Hypertrophy gives rise to the active variety. Improve the condition of the blood by the use of iron, quinine, bitter tonics, alcoholic stimulants, good food and stimulate the heart's action by the use of the following:

R. Tinct. digitalis ..... ℥ iii.
Spts. amm. aromat ..... ℥ vi.
Spts. lavand co.,
Syr. simp. āā q. s. ad ..... ℥ iii.
M. Sig. ℥ i. q. 4 h.

Cerebral anæmia produces a headache, which is often mistaken for the passive cerebral congestive form. It is often associated with general anæmia, nervous exhaustion, and may occur in heart disease in consequence of enfeebled heart power, such as is met with in enlargement with dilatation, fatty degeneration, and myocarditis. Improve the general condition of the patient, and stimulate heart's action as recommended in the passive cerebral congestive variety. Nitrite of amyl will relieve the immediate headache. Let the patient inhale three to five drops of it on a piece of cotton, placed within one nostril while the other is held closed. When associated with nervous exhaustion, I employ the following:

R. Strych. sulph ..... grss.
Tinct. fe. chlor ..... ℥ ij.
Glycerinæ ..... ℥ ss.
Infus. gentian q. s. ad ..... ℥ vj.
M. Sig. ℥ ss. after meals, in a wineglass of water.

A word as to alcoholic stimulants. These are beneficial in headache dependent on cerebral anæmia. Champagne is a specially favorite form, and is much relished by those who suffer from nervous exhaustion. You should use caution in recommending it to such patients, as it may lead to serious results. Give it always as a remedy and not as a beverage. A safe plan is to recommend brandy, a tablespoonfull after each meal, and limit the champagne to one glass and let it be taken with the dinner.

Cerebral tumors give rise to headache, often severe. in all cases of cerebral tumors, give iodide of potassium: for it cannot be safely said that in any given case the tumor does not depend on syphilis, and by administering the remedy you give the patient the benefit of the doubt.

There is reason to believe, too, that patients with cerebral tumors, dependent on other and unknown causes, are benefitted by the use of iodide of potass. I have previously given you directions as to the method of giving the iodide. Sometimes the pain is so severe that you are justified in resorting to opium to relieve it. If there be much sleeplessness, give sleep by the use of the bromide and chloral mixture.

The headache of cerebral softening may be palliated by opium and rest. Such patients should have the best possible hygiene surroundings. If there be sleeplessness and much irritability of the nervous system, the combination of bromide with chloral is indicated. Ergot has been used for the relief of the headache, in these cases, by those having charge of insane asylums, where this condition is frequently met with, and the testimony is in its favor as a valuable remedy. It is usually given in large doses, beginning with ℥ j. of fl. ext. ter in die, and gradually increasing to ℥ ss. ter in die.

Almost all cases of increase of temperature of the body above 103°, are attended with headache. To relieve it reduce the temperature, according to the plan given in a previous lecture; apply cold and evaporating lotions to the head, and keep the patient free from noise and excitement. A full opiate will often relieve such a headache, save the patient much suffering, and effect favorably the progress of the fever.

The mere mention of worms in the alimentary canal, hemorrhoids, uterine and ovarian disturbance and optical defects, as causes of headache, will suggest the remedy.—*New York Medical Record.*

SOME FORMS OF DYSPEPSIA.

Dr. F. Delafield (*Amer. Clinical Lectures*, Vol. 2, No. iv.), under the above title, gives some valuable suggestions: (1). Dyspepsia confined to the stomach has the following symptoms, viz.: attacks of pain and vomiting, coming at first at long and then at short intervals—the attack always excited by the ingestion of food and the pain ceasing when the stomach is emptied. The disease lasts for years, and steadily grows worse. Medical treatment alleviates the symptoms for longer or shorter intervals, but never permanently.

The most rational and effectual treatment of these cases is the systematic use of the stomach-pump.

The pump, as a rule, is not to be used till three hours after a meal of solid food. The patient soon learns to use the pump at home. (2). Dyspepsia due to functional derangement of the small intestine, the stomach being unaffected. Symptoms—pain is the most troublesome and may be referred to any part of the abdominal cavity. It is usually described as a constant dull pain—has no special relation to

the ingestion of food or its quality. It occurs when the stomach is full or empty—whether the food is spare and simple or abundant and rich. The use of liquor will usually stop it for a short time. There may be some particular time of the day at which the pain comes on with tolerable regularity. There may be nausea, but not vomiting. Appetite is often good and food causes no distress. Some cases are easily relieved by treatment: others prove obstinate.

Drugs indicated are, cubebs, ipecac, and assafœtida. Horseback riding is often of great service.

(3). Dyspepsia from disordered functions of the liver. Clinically these cases can be divided into two classes: (*a*). Those of florid complexion and of well-developed adipose and muscular tissues. (*b*). Those of pallid complexion, spare figure and feeble muscles. In the first class the symptoms are due to derangement of those functions of the liver which should effect the destructive metamorphosis of albuminoid substances, so that patients receive a full supply of the nutritious portions of the food, but do not get rid of the excrementitious. In the second class, the functions which should assimilate the fat and peptones are so disordered that the patient is imperfectly nourished. In one case the tissues are overmanured, but badly drained: in the other they are well enough drained but not manured at all.

Symptoms of the first class of cases are—depression of spirits, liability to attacks of vertigo, bowels more or less irregular, urine apt to contain an excess of uric acid or of the urates, partial loss of memory, an inability to apply the mind to business. Treatment—an entire abstinence from every kind of alcoholic drink; also from tobacco; vigorous outdoor muscular exercise; drugs as indicated.

Symptoms of the second class of cases—flatulence, headache, curious nervous feelings in various parts of the body, sleeplessness, hypochondria often, irregular action of the heart, pain in the precordial region and a dull pain in the right hypochondriac region, extending to the back and shoulder, constipation, emaciation, urine normal usually. Treatment of this condition is different. Diet must be carefully regulated—full and nutritious; wines, etc., are often of service; cream and cod-liver oil are sometimes indicated; constipation must be relieved, nervous symptoms allayed, appetite improved by the mineral acids, exercising in the open air, bathing the entire body daily in cold water.

PUERPERAL FEVER—IS IT GENERALLY SPREAD BY THE MEDICAL ATTENDANT?

This is a question of far-reaching import. Dr. F. Churchill (*Brit. Med. Jour.*, March 25, 1876) presents the following facts:

1. We know that a person going directly from a post mortem examination to a lying-in case may excite puerperal fever in that patient. Surely this opportunity for mischief is of very infrequent occurrence.

2. We know that medical men attending cases of erysipelas have excited puerperal fever from attending lying-in women at the same time, especially if due precautions had not been taken.

3. We know that nurses going from attending on puerperal fever to lying-in women have conveyed the disease.

4. We also know that in some cases the disease has followed in the track of some particular doctor, and this in spite of minute and thorough precautions. There is no explanation of such cases, and they rather show the failure of quarantine.

5. In the course of forty years of practice I have had puerperal fever cases, but the most rigid inquiry has failed to show me any connection between any two patients. My precautions were (*a*) Never to attend a confinement in the clothes I had worn at my visits. (*b*) I always saw recently confined patients before seeing the fever cases, and on returning home always changed my clothes. (*c*) I was scrupulously careful about the frequent and thorough washing of my hands before leaving the patient's house. These precautions are certainly successful with me.

6. If the ordinary attendant is to be put in quarantine, what about the consultant? Is he not as likely to carry the infection? The doctor hopes that before the portability of the disease is assumed, some effort will be made to collate examples to show how often notwithstanding due precautions, the sequence of the disease proves it to have been conveyed from one patient to another by a third person. If well authenticated cases of this kind be numerous, then puerperal fever is more infectious than typhus, scarlatina or even plague, and the doctors must go into quarantine. If not, neither the profession nor the public need be alarmed, and with proper precautions the doctors may pursue their avocations in peace and security.

BILIARY COLIC.*

By Thomas Hayden, F.K. & Q.C.P.I.

Physician to the Mater Misericordiæ Hospital, &c.

The details of seven cases were given, in which the paroxysms of colic were very severe, and repeated, and in some, of the most aggravated character. The symptoms were pain at the epigastrium and right hypochondrium, extending over the abdomen to the back, with fixed pain at the right scapula, great prostration, amounting in one case to syncope, vomiting, slight jaundice, with bile, pigment in the urine, and constipation. From five of the patients gallstones were obtained, and in one instance large quantities of the seeds and core of fruit.

The calculi were of the most varied character as to size and figure, but composed mainly of cholesterine and inspissated bile; 45 were obtained from one patient, and 10, not larger than duck-shot, granulated on the surface, and evidently examples of hepatic calculi, from another.

* Abstract of a paper read at a meeting of the Medical Society of Dublin, February, 1876.

Death occurred in two of these cases, preceded by symptoms of pyæmia, and in one of them a biliary fistula had been long previously formed.

The other five patients recovered perfectly, and one of them has been for more than sixteen years free from recurrence of his symptoms.

An attack of biliary colic is usually preceded, for several months, by flatulence, acrid eructations and a sensation of fullness and discomfort in the region of the liver some hours after meals. The bowels are constipated, and the urine exhibits from time to time a copious deposit of urates. Anomalous pains of a remittent character, referred to the back and nucha, are likewise frequently complained of. The earliest intimation of an actual seizure consists in a thrilling sensation at the epigastrium. This is soon followed by colicky pain radiating through the hypochondria, and extending to the inferior angle of the right scapula, where it is felt with especial severity. The abdominal muscles become rigid, the stomach inflated, and gaseous eructations and vomiting occur without relief to the patient's sufferings. The pain is remittent and paroxysmal, and of the most excruciating character; it usually lasts several hours, but may continue for a much longer period, and then ceases quite abruptly. The pulse, during a severe paroxysm, is slow and very feeble; the surface cold, and bathed in perspiration. Within twenty-four hours after the attack there is usually jaundice and the urine is coloured with bile, whilst the fæces exhibit a want of it.

The recurrence of these attacks is uncertain as to time, but liable to be determined by indiscretion in diet, and by violent succussion of the body. The earliest are supposed, on theoretical grounds, to be the most severe; but I think those which occur at a somewhat later period, the third or the fourth, are usually attended with still greater suffering and prostration.

Jaundice is not unfrequently absent after the earlier paroxysms. But even in such case the diagnosis cannot be difficult if due weight be given to the special symptoms, thrilling at the epigastrium followed by pain of a spasmodic character, extending to the right scapula, accompanied by sudden inflation of the stomach and vomiting, and abruptly ceasing after some hours; hepatic dullness being somewhat extended, with corresponding tenderness to pressure.

The smooth, round, and yielding tumour mentioned by authors, as formed by the distended gall-bladder, cannot be felt during a paroxysm owing to the tension of the abdominal muscles; and even during the intermissions, except in cases of extraordinary distention, the evidence furnished by this symptom is eminently inconclusive.

In cardialgia there are other symptoms sufficiently distinctive of gastric dyspepsia; the pain due to this cause commences soon after food has been taken, whilst that of hepatic colic not for some hours.

During a paroxysm the bowels should be unloaded by a turpentine enema, and the patient should be placed in a warm bath of 105 deg. F. If relief be not thus obtained, an event which I have never witnessed, or if the bath cannot be readily provided, a hypodermic injection of a quarter of a grain of morphia should be given. In the intervals, a few grains of blue pill with extract of belladonna and dried soda should be given thrice daily, and occasionally a rhubarb or seidlitz draught. Chloroform may likewise be administered by inhalation, but short of anæsthesia, during the attack; it is, however, less efficacious than morphia given as proposed, and the relief which it affords is of shorter duration.

I have not tried sulphuric ether and spirits of turpentine, as recommended by Durande, nor do I think the stomach would be likely to tolerate it; neither have I, for the same reason, given chloroform by the mouth, as suggested by Bouchu, or Prout's favorite remedy, large doses of a dilute solution of bicarbonate of soda. The general treatment, with a view to cure, should have reference chiefly to diet and exercise. Fats, sugar, hot bread, malt drinks, highly-spiced dishes, and rich soups, should be avoided. Claret and the alkalide effervescing drinks, soda and seltzer water, should be freely used. Green vegetables, especially spinach and broccoli, likewise fresh ripe fruit, and plain pudding without fruit, may be used. Food should be taken in moderate quantity and frequently, the bowels should be moved at least once daily, and, above all, active exercise out of doors, as far as practicable, should be systematically pursued. The natural alkaline waters should be used, both internally and by the bath, for one or two seasons; those of Vichy, Carlsbad and Marienbad are the best.

The great preponderance of biliary colic amongst females, as compared with males, has been remarked by most writers on the subject. Of the seven examples which I have given, the patients were females in five instances, and the great majority of the other cases which have come under my notice belonged likewise to the female sex. Furthermore, in every instance except Case V., the female patients were of the better classes. It is not unreasonable to conclude that the sedentary habits of ladies, and their highly artificial dietary, are, in a great measure, chargeable with this result.

It will be observed that in this paper, which is of a purely clinical character, I have eschewed the pathology and the chemistry of gall-stones. The subject in its general bearing is much too large for a brief memoir. It has been adequately and ably treated by Fauconneau, Dufresne, Frerichs, Trousseau, Prout, Budd, Murchison, and quite recently by Dr. Hilton Fagge, all of whose writings may be consulted with profit.—*Dublin Medical Press.*

Cholera Infantum. By A. G. CRAIG, M.D., formerly resident physician of Cincinnati Hospital.

Cholera infantum, or, as it is generally called, summer complaint, is not as supposed by some a disease peculiar to this country. English writers describe the morbid phenomena of this affection

under the head of infantile diarrhœa. Trousseau adopts the term infantile cholera. By other French writers it is usually called choleriform. It is an affection that occurs in this country from the month of May to October, its maximum frequency and severity correspond with the degree of heat, the disease increasing or decreasing as the mercury rises or falls in the thermometer. The disease is most prevalent in the months of July and August. It is not a disease confined almost exclusively to large cities, as is generally taught in our text-books. It is frequently met with in the rural districts, under the most favorable hygienic conditions. By some writers the term cholera infantum has been extended so as to include all the diarrhœal maladies of infancy, during the hot season. I shall restrict it to that form of infantile diarrhœa in which the stools are frequent and watery, accompanied by vomiting, great thirst, high temperature, and rapid emaciation.

Cholera infantum occurs commonly under the age of two years, and generally during the period of early dentition. For this reason the malady is associated with teething in the popular mind, and even some practitioners consider dentition a cause. The eruption of the teeth is doubtless often retarded by this affection, and the disease frequently aggravated by irritation of the gums, but dentition will not of itself produce it. During infancy, which extends from birth to the age of two and a half years, there is great functional activity and rapid development of the intestinal follicles, and the disease should be attributed to this cause, rather than to dentition. But the most obvious cause of this malady is the intense heat of summer, and the anti-hygienic conditions to which it gives rise. In the large cities the heat is greater than in the country, the atmosphere is loaded with noxious vapors, especially gases arising from animal and vegetable decomposition. Children of the poorer classes, in insalubrious locations, living in crowded tenement houses, and in an atmosphere rendered impure by personal and domiciliary uncleanliness, are peculiarly liable to be affected, but the children of those surrounded by the most favorable hygienic circumstances, by no means escape. In many cases another cause co-operates, namely, indigestion induced by the use of improper food, which tends to impair the whole alimentary tract. Bottle-fed infants are especially subject to this affection. In some cases malaria contributes to the intensity of the disease.

Cholera infantum in the great majority of cases is preceded by simple diarrhœa, the dejections being more or less numerous and copious, but not such as to excite much alarm. In other cases the attack commences abruptly. The diarrhœa is profuse, the stools often of a green or yellow color, but more commonly light-colored and watery, and almost always contain particles of food, especially undigested milk. The discharges are generally offensive from the onset, and when the disease is protracted, they are frequently streaked with blood. The diarrhœa rarely continues for any length of time before an extreme irritability of the stomach manifests itself. Vomiting is a prominent and persistent symptom, everything taken into the stomach being immediately rejected, sometimes with great violence. In other cases there is constant retching without vomiting. In many cases the irritability of the stomach continues throughout the attack; in others the vomiting ceases while the purging continues unabated, or even increases in violence, and whatever food or drink is taken passes off rapidly without undergoing much change. In some cases the dejections are so thin and watery, as to soak into the diaper, and scarcely produce more of a stain than does the urine, and occasionally are almost odorless.

Thirst is a prominent and persistent symptom, the little patient craves constantly cold drinks, and ice is taken with great avidity. The appetite is gone, yet the infant seizes the breast eagerly in order to relieve the great thirst. The tongue in the commencement of the attack is covered with a white, slimy mucus; in protracted cases becomes red and dry. The pulse is usually quick, frequent, small and tense, and the respiration somewhat increased in frequency. The skin is dry and harsh, the head and abdomen are hot. The thermometer indicates a temperature of 103° to 107°, and in one case under my care, which proved fatal, 110¼°. The infant is restless, and fretful, and generally sleeps with its eyelids partially open. The emaciation is more rapid than in any disease, except Asiatic cholera. The eyes are sunken, languid and glassy; the countenance pale and shrunken; the lips thin, dry and shriveled. As death approaches, the infant rolls its head about; utters plaintive, scarcely audible cries; the abdomen becomes tympanitic; the hands and feet of leaden hue, and sometimes œdematous; the skin has a clammy coldness; the discharges from the bowels frequent and very offensive; urine scanty or suppressed; complete coma results, death being in many cases preceded by convulsions. In some cases effusion takes place in the brain, and the patient has all the symptoms of acute hydrocephalus.

Cholera infantum is essentially an inflammatory malady. In inflammation of mucous surfaces the redness is apt to partially disappear in the cadaver. After death an examination reveals turgescence of the intestinal follicles. The mucous membrane is vascular and softened, and the solitary glands, and the patches of Peyer, present an inflammatory hyperæmia; and sometimes ulcerated patches are found throughout the intestinal canal. When the brain is involved there are found softening and injection of the cerebral tissue, and congestion of the cranial sinuses, veins, and capillaries.

Treatment.—This remains a *quæstio vexata*. The great variety of treatment instituted for the relief and cure of this affection, is evidence of the difficulty experienced in the management of it. I am, from no limited experience, a believer in calomel in the early stages of this disease. Given at

nce, so soon as the disease manifests itself, nothing else will so promptly restore the healthy action of the stomach and bowels. The medicine is best administered dry on the tongue, for being tasteless it is swallowed without repugnance. It is one of our best remedies for the relief of sick stomach in this affection. I have known it to succeed after all other means had failed. I administer from one-fourth to two grains, two or three times daily, or every two or three hours in urgent cases, when the discharges are frequent and exhausting. A spice poultice, wet with brandy, should be kept over the abdomen so long as the vomiting continues, and should be renewed frequently, so as to maintain its strength. A sinapism to the epigastrium is often necessary. Pounded ice may be given to quench the thirst. When the stomach is very irritable, water should be given sparingly or withheld altogether. In a majority of cases opiates are indispensable. The paramount object is the arrest of the exhausting discharges, and to relieve the griping, until the calomel has had time to effect a change in the secretions. The remedy on which most dependence is to be placed in effecting this object is opium. Laudanum is a most eligible preparation. When the stomach is very irritable, and the discharges frequent and exhausting, and attended with griping, it should be given by the rectum in starch-water. Sometimes acetate of lead injections—from two to four grains, in starch-water—may be further needed, for the same intent. So soon as the irritability of the stomach is sufficiently quieted as to allow of its administration, the remedy which I have found generally to promptly restrain the disordered action of the bowels, is a combination of calomel, prepared chalk, acetate of lead and opium.

R.	Hydrarg. chlor. mit., . . .	gr. iv.
	Cretæ præp., ...	gr. xxxvj.
	Plumbi acetat., ...	gr. xij.
	Opii pulv., ...	gr. j.

M. ft. ch. No. xii. One powder every two to four hours to an infant one year old.

I have also used the following formula with the best results in this affection. The dose is for an infant of one year:

R.	Tinct. opii, ...	gtt. xxiv.
	Bismuth subnitrat., . . .	ʒ ij.
	Mistur. cretæ, ...	℥ ij. Misce.

Shake bottle thoroughly, and give one teaspoonful every three or four hours.

In some cases I have used with gratifying results the subnitrate of bismuth and the compound powder of chalk with opium, combining as it does an astringent, alkali, and opiate. The bismuth is an efficient anti-emetic, and is a valuable remedy, not only in this disease, but in all of the diarrhœal maladies of infancy. Its effects are entirely local, namely, upon the gastro-intestinal surface. It undergoes same chemical change with the secretions, which turns it black, and gives more consistence to the discharges. There is no positive evidence of its absorption.

Creasote is a valuable anti-emetic in this affection, counteracting as it does fermentation in the alimentary mass. It is best given in mucilage. Lime-water and milk, besides being nutritious, are efficient in relieving the irritability of the stomach. There are exceptional cases of cholera infantum in which we are left in no doubt as to their malarious nature. Such cases will require quinia or cinchonidia in conjunction with other remedies.

In protracted cases the vegetable astringents are of service. A decoction of the root of geranium maculatum, sweetened to the taste, is the best; it checks the discharges, and promotes digestion.

If the head be hot, and stupor or coma be threatened, with other marked cerebral symptoms, the opiate should be omitted. In these cases a few leeches behind the ears, and the application of cold water to the head, may be proper.

In every case the gums should be carefully examined, and if found to be swollen and inflamed, they should be freely lanced.

Attention to diet and regimen is of the greatest importance. If the milk of the mother, from pregnancy or other causes, is found to disagree with the infant, it must be weaned, and fed upon rich cow's milk, sweetened but not diluted. Pure milk is generally considered by physicians as the most appropriate article of food in this affection; but I have frequently met with cases in which the vomiting and purging were increased by confining the little patient to a milk diet, large masses of caseum being ejected from the stomach, and passed from the bowels. Egg-water, made by dissolving the whites of four eggs in a pint of iced water, to which a teaspoonful of bicarbonate of soda has been added, is, in my opinion, one of the very best articles of diet in cholera infantum. By the use of this drink I have seen patients rescued from imminent danger of collapse. It is taken with avidity by very young children, and is very seldom ejected, is readily digested, the albumen passing into the circulation and replacing that element of the blood exuded in the watery evacuations. In some cases I have administered, with the best results, the white of an an egg beaten well with a spoon, to which a lump of ice had been added. Arrow-root, farina, chicken-water, essence of beef, strong broths, and broiled tender beef, have been found to answer best with some. Trousseau and others recommend raw meat made into a kind of *purée* by being reduced to a pulp in a mortar and pressed through a fine sieve, so as to separate the vessels and areolar tissue. I have no experience in the use of raw meat, but the liability to tænia and trichina, as a result of eating uncooked meat, is not to be overlooked. Vegetables and fruits, and every kind of food which is not readily digested, should be prohibited. Many children will require alcoholic stimulants, preferably with their food, for support. Pure brandy, if it can be obtained, is the best stimulant. Elixir of calisaya bark is an eligible preparation, combining as it does a tonic and stimulant, agreeable to the taste. Pepsin is often beneficial.

The child should be bathed daily. Its apartment should be clean, dry, and freely ventilated, and so arranged as to be darkened during the day. The clothing should be sufficient to protect the child against the sudden changes of the weather, but not so warm as to overheat the body. The custom of dressing the child in flannel and other warm clothing, cannot be too much reprehended. During the extreme heat of the day, a thin cotton dress is all that is required. The babe should be carried into the open air in the shade of trees, but should not be exposed to the warm rays of the sun.

In the close built parts of a large city, all treatment may fail in some cases of cholera infantum, but the patients will speedily recover on being carried into the salubrious air of the country. The details of the treatment above indicated, must, of course, be left to the judgment of the medical attendant. Protracted summer complaint affords scope for perseverance and contrivance in finding remedies to control the vomiting, to restrain the exhausting discharges, and to improve the digestive powers of the little sufferer.—*American Practitioner*, August, 1876.

DILATATION OF THE CERVIX UTERI—A NEW METHOD OF USING SPONGE TENTS.

BY THEODORE H. SEYFERT, M.D,

Physician to the Gynæcological Hospital.

The mechanical dilatation of the cervical canal of the unimpregnated uterus is one of the most valuable resources of the gynæcologist, both for diagnostic and therapeutic purposes, affording him the opportunity to explore freely a region that is, under ordinary circumstances, closed to all investigation, and to treat understandingly any pathological condition which may there exist. In the treatment of many derangements and diseases of the womb dilatation has been successfully used in place of the cautery and knife, and one might suppose, from the great frequency with which this operation is resorted to, that it is one almost wholly devoid of danger and productive only of good results. This, however, is far from being the case, and, although its dangers are not so great as to make one hesitate in having recourse to it on proper occasions, yet they are sufficient to give to the operation a degree of importance not always accorded to it, and to deter one from its employment if the desired results can be attained by other and less dangerous means.

The use of tents may be traced back to the earliest ages; the one composed of compressed sponge, with which we are so familiar, being described in a passage in Aëtius relating to the treatment of sterility dependant upon a contracted os uteri. Cotton, tow, wool, the roots of certain vegetables, ivory deprived of its earthy matter, india-rubber, and many other substances, have been used in their manufacture, particularly the root of the *Gentiana lutea*, which was among the earliest and most frequently employed. The bark of the slippery elm is occasionally used, but it is almost valueless as a dilator, though it may sometimes be employed with advantage as a means of stimulating the diseased mucous membrane of the cervix and body to an altered action. Of all materials, compressed sponge and the laminaria digitata, or seatangle, are the most extensively used in the making of tents. The former is undoubtedly an excellent dilator, but there are serious objections to its use. It retains the secretions, allowing them to decompose in the uterus, and the cervical mucous membrane sinks into the cells of the sponge and is lacerated upon the withdrawal of the tent, thus increasing the risk of causing inflammation and those deplorable results which have too frequently followed their employment. Neither is the conical shape of the tent desirable, since it distends the canal very unequally, the external os being freely dilated, while the os internum is often only moderately so.

The laminaria digitata has much to recommend it, and is by some considered to be "the most cleanly, efficient, and convenient tent in use." It can be made smaller than the sponge tent; it has a greater *distending* power, other things being equal; it does not retain the secretions to the same extent as sponge, and is therefore less irritating to the uterus. In from ten to twelve hours it will expand to about three times its original diameter, and if soaked in water for a little while previous to introduction it will act more rapidly. These tents, however, are not without their drawbacks. It is difficult to retain them *in situ*, and their rigidity often renders them less suitable than sponge, particularly in those cases where the uterus is very tender and bleeds readily, or where the os is partly distended by abnormal growths. They are also slower in their action, and, although their ability to overcome resistance is greater than in sponge, they do not expand to the same extent.

Forcible and rapid dilatation is advocated by some practitioners to the exclusion of all other methods. For this purpose instruments are used so constructed that they may be made to expand their calibre after introduction into the cervix. Dr. Ellinger, of Stuttgart, employs a sort of modified polypus forceps, which can be introduced into the narrowest cervix without preliminary dilatation. He uses this instrument in all cases where it is desirable to dilate the womb, either for exploratory purposes or for treatment, and generally allows his patients to go about their business immediately after the operation. Dr. John Bull (*N. Y. Med. Jour.*, Oct. 1873), who narrates the history of a number of cases of dysmenorrhœa successfully treated by rapid and forcible dilatation, believes that its effects are threefold. "First, by breaking up all adhesions, which are often firm and unyielding, it relieves the constriction entirely, and, acting as a derivative, it cures the hyperæmia of the cervix; and, further, it establishes a radical change in the nutrition of the whole organ." This method of dilatation, though boldly and apparently successfully practised by a few, is in reality too dangerous to come into general use.

Besides that, cases of constriction which cannot be permanently overcome by the use of tents may be treated more safely and with the promise of better results by enlarging the canal by *incision*, as practised by Drs. Sims, Barnes, and others.

No matter by what method dilatation is accomplished, it is always well to bear in mind that it is always accompanied with danger. Those who are fully persuaded of this fact—and they may be found among the most eminent gynæcologists—rarely resort to the operation if it can be avoided; and when they do determine upon its necessity, they are extremely careful to guard the patient against all extrinsic influences which might by any possibility affect her injuriously. I would lay stress upon this point, because I know that many physicians are disposed to underrate greatly the danger connected with dilatation of the womb: and I am fully convinced that serious troubles may often be attributed to their injudicious proceedings. It is true that the womb will sometimes submit to severe treatment without much evidence of resentment, but were metritis or pelvic cellulitis to occur in a patient after having a tent introduced at the doctor's office and then allowed to go about her business, with instructions to withdraw it after so many hours, I should think that the physician might be justly charged with being the cause of her illness. Metritis, peritonitis, septicæmic fever, tetanus, hysterical convulsions, etc., are not of extremely rare occurrence, and, although the judicious management of the patient will greatly lessen the liability to such unfavorable results, they will nevertheless occur despite the best efforts to prevent them. In other words, the trouble may not be occasioned by a want of skill on the part of the workman, but by serious defects in the instrument which he is obliged to use.

In order to avoid as far as possible the evil consequences arising from the use of tents, it is necessary that the physician should exercise a proper amount of discrimination in the selection of his cases and use certain degree of care in the performance of the operation itself. As a rule, a tent should never be introduced during the menstrual period, nor immediately before or immediately after it. The reason for avoiding this time must be obvious to every one. Neither should it be employed when there are any evidences of recent inflammation of the womb or circumjacent tissues, for under these circumstances the irritation and excitement in and around the uterus occasioned by its dilatation would be apt to light up a flame of the most undesirable kind. We should also be assured that the patient can remain in the recumbent position so long as may be desirable. This time will vary with different patients, but in all cases it should be from the moment a tent is introduced until some hours have elapsed after its removal. This is a matter of importance, for too much care cannot be taken in this respect in order to guard against the development of inflammatory action, particularly if dilatation is carried to a considerable extent. The irritation will continue for some days,—sometimes for a week or more,—and if excitement of any kind arises it is apt to increase until it assumes a serious aspect. Dr. J. Braxton Hicks, in dilating the cervix, always insists upon the patient being kept perfectly quiet, and in his hospital practice enjoins *a week's* rest,—a procedure greatly in contrast with that adopted by those gentlemen who do not hesitate to introduce a tent at their office and send the patient away, leaving its subsequent management to her care.

The placing and removal of a tent do not call for the exercise of much skill, but always demand care and gentleness. Pain is often inflicted unnecessarily by using a tent so large that it cannot be placed in position without employing force,—a proceeding that is never justifiable; therefore it is well to select one not larger than the canal intended to receive it, which, if introduced gently, will give no pain at all. It is also important to ascertain the direction of the cervical canal, and to have perfect control over the movements of the womb when about to introduce a tent. The one may be accomplished by the use of the probe, and the other by firmly fixing a tenaculum into the anterior lip of the uterus, which will enable one to draw down and steady the organ while the tent, having its tip slightly anointed, is slipped in on a line with its axis. It is best not to cover the tent with grease, since it will prevent it from absorbing fluids freely, and render it liable to slip out of position. The pain which usually accompanies the process of dilatation will demand the administration of a sedative of some kind, since, if it is allowed to continue, it may set up an inflammatory action in the womb or adjoining serous membrane.

In removing the tent it should not be pulled away through the speculum, for by so doing air would be admitted to the uterus through the distended vagina and might occasion trouble: furthermore, the finger would not be able to reach far enough through the instrument. Instead of pulling away the tent by the string which is always attached, it is better to loosen it gently with the finger, and when it becomes detached, the exploratory finger should be ready to take its place. No force should be used in this operation, and if the cervix is found to be insufficiently dilated another tent will be required. Here it is that due caution must be exercised, for serious illness and sometimes death have followed their successive application without allowing proper intervals of rest. There is not only a continued irritation which may result in inflammation, but also the danger of an extensive laceration of the cervical mucous membrane that may lead to a fatal termination of the case by septicæmia, a result which has occurred more than once to my knowledge.

If the beneficial results attained by dilatation warrant us in using tents without hesitation whenever they are positively indicated, a knowledge of the dangers accompanying their employment, some of which I have briefly alluded to, should induce us to dispense with their use when it can be done without disadvantage to the patient, and to regard the operation of dilating the cervix uteri as one of no trifling importance. Sponge tents are the best dilators at

our service, but they are especially dangerous for the reasons which I have already stated. Dr. Marion Sims writes, "He who will give us an efficient, safe, and cheap substitute for sponge tents will confer a great boon upon surgery. I know of no complete substitute, or I would be too willing to adopt it." What is required in an instrument of this kind is readily determined. It must not abrade the mucous membrane or retain secretions, and it should dilate equably and not too rapidly. More than one ingenious contrivance has sought favor as a substitute for compressed sponge, without succeeding in taking its place. To my mind, the nearest approach to a safe and reliable tent has been made by my colleague Dr. J. A. McFarran, whose inventive brain conceived the idea of preserving the use of compressed sponge whilst doing away with its dangers. It consists of a small metallic or hard rubber tube, holding upon its perforated extremity a sponge tent which is completely enveloped by a closely-fitting, thin piece of india-rubber. The rubber, while permitting the sponge to dilate to its fullest extent, prevents it from absorbing fluids from the canal and protects the cervical mucous membrane from abrasions. Water reaches the sponge through the tube, which has upon its vaginal extremity a distensible rubber ball for its reservoir. Instead of limiting the rubber covering to the tent, it may be made to envelope the entire apparatus, thus keeping the tube in constant contact with the water, which, by entering the perforations made in the tube, readily finds its way to the sponge.—*Philadelphia Medical Times.*

CHRONIC PSORIASIS, OR LEPRA VULGARIS. *(a)*

By A. S. Myrtle, M.D., Consulting Physician to the Harrogate Bath Hospital.

This disease has been and still is looked on by some authorities as identical with that leprosy we read of in the Bible, and which proved a "plague" to the ancient Israelites, requiring for its treatment the enforcement of the most absolute separation of the sick from the healthy, and the destruction of every material which had exhibited the smallest sign of having been smitten with it. Without doubt many of the symptoms of the lepra of to-day correspond with the description left us of that of the time of Moses. The scales are white; when removed there is the raised red spot. These spots spread; the parts of the body affected are the same; but the hairs do not whiten, and the lepra we now see is eminently non-contagious, and its white scales do not attach themselves to the skins of beasts and walls of houses. I think it highly probable that psoriasis was as common among the ancient Jews as it is among ourselves, and that it would be found side by side with cases of contagious lepra; but owing to the impossibility of recognising the one from the other from want of diagnostic power the subject of psoriasis would be treated exactly as if he had been a leper. All skin affections must have met with the same fate, even boils, and we cannot wonder that this one in particular should have had the word unclean pronounced against it. At the present time psoriasis is frequently seen in many parts of the East, and the modern Jew shows evidences of its presence as often as his Gentile neighbour; but we shall seek in vain for a cutaneous disease to answer the description of the leprosy of Scripture, which possibly depended on the presence of a parasite, a white fungus which had the property of attaching itself and spreading, propagating on structures differing so widely in their nature as wool and stone, as well as on man and beast. The traveller now as he passes from one Eastern city to another meets at its gates poor wretched objects, modern lepers, but these have nothing in common either as regards the history of their disease, the local and constitutional symptoms it presents, or its inevitable consequences to their retrospective namesakes.

Psoriasis stands next to eczema as regards frequency. It is very seldom seen in children under ten; frequently after that age, where it is hereditary, we may detect one or two insolated patches of a slightly reddish hue, not very scaly. These often disappear without treatment, return again in the spring or autumn, until puberty is passed, when the eruption becomes more pronounced and persistent, showing a decided preference for the knees, elbows, outside of thighs, legs, and hairy scalp, but seldom affecting the face or hands. If the scales are allowed to accumulate, they become white and of a pearly lustre; but as they are liable to removal from the friction of clothing, washing, &c., they seldom present this peculiarity, and for the most part are of a yellowish colour and opaque. No constitutional disturbance precedes or accompanies the eruption, and barring its unsightliness, the individual is in perfect health. Of the cause of this disease we know nothing. Why certain little patches of skin should become over-vascular, and why this should lead to excessive cell growth, and cell growth of a normal character, although in too great abundance, is a problem still to solve. Of all diseases of the skin I believe it to be the most capable of transmission from parent to child, with a tendency to increase in virulence as it descends. However virulent, I also believe no disease is so little apt to impair the general health if left to itself, and that in time—it may be a very long time—it wears itself out, leaving the patches of skin in a perfectly healthy condition. This I have also noticed, that some cases respond to treatment readily; others presenting the very same features defy all medicines; and often in these cases I have seen great mischief result from too prolonged courses of powerful and poisonous drugs. Some medical writers have affirmed that psoriasis is very often associated with pulmonary consumption. I agree with them, but connect the lung evil with the remedies employed to cure the rash—not with the rash itself. It is not possible that the economy can permit the exhibition of accumulative poisons for months and years without suffering in one or other of its parts; above all arsenic and mercury ought to be administered so as to avoid their doing permanent injury to the constitution, whilst they can in most instances effect but

temporary good to a harmless eruption. Others look on it as a sure indication of gout, and I admit that the two are frequently found to exist at the same time in the same subject; yet I hold them to be perfectly independent as regards causation, and therefore requiring at our hands some discrimination in their treatment. Perhaps the reason that psoriasis has been so often looked on as of a gouty nature may be accounted for by the fact that when it makes its appearance for the first time it very generally does so after adolescence, the very period when gout is apt to show itself. When it is hereditary it very often appears at an early age, and continues to maintain its hold till the individual reaches that time of life when gout may be expected, and so we have the two running in couples. Yet I am inclined to view them as distinct diseases, and when they do exist in the same individual, in order to deal with them successfully they must be dealt with separataly. I have often found that, although the patient got rid of all traces of gout, his skin remained as full of scaly patches as ever. This, I think, would not be the case if there was that intimate connection between the two which some maintain. My experience leads me to believe the psoriasis is little under the influence of any other disease, whether chronic or acute; these run their courses, leaving the patient, as far as the eruption is concerned, just as they found him. Certain seasons have much more power over it: in some it disappears entirely during the winter months, in others during the summer; but I rather think a hot dry summer is more apt to aggravate it than any kind of weather, and I have frequently seen it affect parts during or after such a season which it had never encroached upon before. If psoriasis is not affected by the superaddition of other aberrations from health in any one suffering from it, however extensive it may be, it does not in any way interfere with the general health, or even comfort of the patient. It must have a depressing effect on the spirits, especially when females are the subjects, but that is often greatly increased by the lowering effects of arsenic and iodide of potassium, and might be very much lessened were they made aware of the perfectly innocuous nature of their complaint, and the possibility of its being kept within bounds. In this country psoriasis is much more frequently met with in people with fair and fine skins than among dark, and shows a decided preference for the strong and healthy. Various writers maintain that it is usually associated with some form of debility of a constitutional character; but this has not been my experience. It is confined to no race or country, and presents the same features wherever it is found. As to the varieties of psoriasis, I have nothing to say; they all present two or three very distinguishing features in common, the first being cell proliferation, the second that this excessive growth neither injures the general health nor leads to any ulterior change in the skin itself; third, that it is most difficult of cure, and when cured, apt to recur; and lastly, that it is hereditary.

Two cases have just presented themselves in proof of the two last facts. I have been called to a gentleman, æt. 78, on account of bronchitis. I also find him the subject of extensive and continuous patches of psoriasis, and he tells me he has never been free of it since he was fourteen years of age, that he has never been treated for it, and that the only application he ever used was a rag soaked in cold water. He is a hale, active man, and rides and walks as vigorously as he did when in his prime. The other case is a girl of eleven covered with psoriasis. The spots vary in size from a pin's head to a sixpence, involving the whole skin except hands and feet. Two years ago her brother, when eight, suffered in the same way. Last year a sister, twelve, had it and now the mother, for the first time in her life, shows a few places on one cheek, and one patch on left shoulder. She tells me that her sister is affected likewise, and that they can trace it back to the grandfather. All are fair-skinned, very healthy and robust.

As to treatment, this involves constitutional and local remedies. Of the former, by far the most powerful and specific against this cell growth are the different preparations of arsenic; in fact, these are the only medicines which act directly on this eruption: other medicines may do so indirectly by improving the digestive organs, and giving tone to the system generally. But arsenic alone seems to be able to cause its disappearance. Unfortunately, this medicine cannot be borne by all patients alike, and many even refuse to get well under protracted courses of the drug. In all its exhibition must be carefully watched, as, if pushed too far, or given where from idiosyncrasy it is not admissible, most unpleasant and occasionally serious symptoms arise. Local remedies may be divided into two kinds, soothing and stimulating. Among the soothing, baths of different kinds must be held as holding the first place, and if properly carried into action, they prove of immense value. They soften the skin, remove the accumulated scales, and thereby enable other applications to reach the hyperæmic vessels. I have known a three months' course of the mild sulphur baths completely remove every vestige of psoriasis in cases of very long standing and extent. I have repeatedly found that the daily immersion in a bath of cold water summer and winter at the ordinary temperature, remaining under the water as long as the patient can bear it (in very cold weather one minute to two, in very warm twenty minutes to thirty may be borne), has had a very decided influence in keeping this disease in check. But this treatment requires a vigorous constitution to start with and above all, a strong heart to ensure reaction.

Where baths cannot be had, water dressing with oil-silk coverings, act much in the same way. Of the many soothing ointments, I give preference to cocoa butter, as the most cleanly and least apt to oxidise. Where stimulant local measures are needed, we use soft soap, the preparations of tar, vegetable and mineral, mercury, iodine and their combinations, all possess great virtues, and if judiciously applied,

may keep the disease in subjection. Change of climate frequently proves eminently curative; sometimes from the sea coast to inland, or the opposite, very generally from a low to a high situation, will be followed by a rapid subsidence of the rash. I have met with many patients who assure me that as soon as they get into the mountainous regions of Switzerland their skins become free from every spot. Unfortunately this does not last longer than their sojourn among the heights, for as soon as they return to the plains the eruption again shows itself.

Whenever psoriasis is accompanied with symptoms of derangement of the stomach, liver, or other organ, the treatment must first be directed to that quarter, as it would be unreasonable to expect that the skin should respond to remedies when its condition was aggravated by the presence of such complications. Should there be general debility, measures for restoring strength must be first put in force in the form of tonics and nutrients. If the blood has become loaded with impurities, these must be got rid of by the exhibition of medicines which act as depurants, and thus having restored strength and eliminated morbific elements from the blood, we may fairly hope to obtain satisfactory results from the local and constitutional remedies which experience has proved useful in the treatment of this affection.

In dealing with all skin diseases, more attention ought to be paid to the character of the skin itself than is generally the case. There is too much routine practice here, and the different forms of cutaneous disease are very often treated according to their names, without reference to the varieties of texture and functional activity which we meet with so frequently. The skins of the young will not bear the same treatment as those of older growth, and I have found, or imagined I have found, that the skins of patients coming from the northern parts of our own country stand rougher treatment than do those from the southern. Dr. Tilbury Fox, in speaking of the different modes of treating skin diseases in England and the Continent, points to the fact that here we could not use the same strong measures which are resorted to in France and Germany, and he further observes, "Differences in the pathological conditions of the same disease, as seen in London and Vienna, are observed, and such being the case, merely even *à priori*, one may expect that some differences of treatment may be required to suit the respective constitutional conditions which result from the operation upon individuals of different modes of life, climatic influences, particular diet habits, and a dozen other like things."

My remarks apply to true psoriasis only, the distinguishing feature of which is that in almost all cases you have the knees and elbows exhibiting spots, and these generally occupy the very centre of the joints, where they will remain stationary for great periods of time, in spite of everything. The eruption, wherever it appears, is of the same character, and generally shows a disposition for the skin on the outside of the extremities. The scales are deposited in layers, and are very adherent, and when the hairy parts of the body are affected, the hairs themselves remain perfectly healthy. The diseases of the skin most frequently mistaken for psoriasis are syphilitic eruptions and ringworm. Of the former, we have a very common form of syphilitic psoriasis, but the rash may be easily distinguished from true psoriasis by attention to a few of the following facts:—1st. The fact of previous syphilitic poisoning; 2nd. The presence of febrile symptoms; 3rd. The character of the eruption, which in the syphilitic form generally appears most abundantly in those parts of the skin least affected in the true—the insides of the extremities, palms of the hands, and soles of the feet. The scales are smaller, less adherent, and vary in shape. The colour of the hyperæmic patches is of a dusky brown; and on examining the mucous membrane of the mouth you will generally find patches on the tongue and throat, with fissures. These I have never found in true psoriasis. Then we have the action of remedies to assist in our diagnosis. In syphilitic psoriasis mercury and iodide of potassium soon pronounce in favour of a specific origin, whereas in the other they exercise no power except for mischief. In tinea circinata we have circular patches, as in psoriasis, but these are slightly raised. The rings are found to consist of small vesicles or papules, giving off a furfuraceous dust, unlike the scales of psoriasis, and if examined these will be found to contain traces of the tryeophyton tonsurans; the rings widen in circumference, leaving healthy skin in their centres; and when they encroach on any part covered with hair, the hairs dry up, bend, and are speedily nipped across by the parasite.

DIPHTHERIA.

At the New York Academy of Medicine, on the evening of March 16, Dr. C. E. Billington read a paper on this disease and its treatment, which was especially valuable as it was based entirely upon clinical and personal experience; his observations having been made with great care and extending over a large number of cases. The Records of the Bureau of vital Statistics showed, said he, that in 1873 there were over four hundred deaths from diphtheria in this city, in 1874 over one thousand, and in 1875 no less than two thousand three hundred and twenty-nine. This terrible epidemic he thought could not be checked by any therapeutic methods, but could only be stamped out by the most revolutionary and active sanitary reform. Dr. Billington has enjoyed unusual facilities for the study of the disease, as he is one of the district physicians of the Demilt Dispensary, and has seen altogether about three hundred cases; of which he has careful records of about one-half.

As a result of his observation and study he has become fully convinced that diphtheria is a local disease, at least primarily; and, though this is the opinion of a minority of the authorities on the subject, he is glad to have his views corroborated by such observers as Drs. Jacobi and J. Lewis Smith. This conclusion is based upon the following points:

First. The local affection commences first.

Second. The gravity of the general symptoms is in proportion to the severity of the local manifestations.

Third. The results of treatment seem to substantiate this view.

In the study of the nature of the disease, he said, three elements were to be considered:

(1) The *contagion*, which he did not propose to discuss on this occasion.

(2) The inflammation, denuding the fauces of epithelium, and resulting in membranous exudation; and

(3) The effects reflected from the inflammation upon the system in general, are, to a greater or less extent, septicæmic in character.

Dr. Billington's treatment consists mainly in local disinfection, together with the most careful and unremitting watching and attention. The agents which he regards as most useful are following, in the order in which they stand in his estimation: tincture of the chloride of iron, lime water and glycerine; and after them, salicylic and carbolic acids, sulphite of sodium, chlorate of potassium, etc. One formula which he uses in almost every case is as follows:

℞ Tinct. ferri chlor., f ʒ iss;
Glycerinæ,
Aquæ, aa f ℥ j.—M.
S. Teaspoonful every hour or half hour.

Besides being very effective, it has the merit of being pleasant to the taste, which is a great desideratum for children, especially when the dose has to be so frequently repeated. If the child is under two years, one drachm of the tincture of the chloride of iron is enough, and if vomiting follows the administration of the medicine, it should not be given so often.

In connection with the above, Dr. Billington formerly employed the following:

℞ Potass. chlor., ʒ iss;
Glycerinæ, f ℥ ss;
Liq. calcis, f ʒ iiss—M.

A teaspoonful of this was alternated with a dose of the former; so that the patient would receive one or the other every half-hour. As a substitute for the chlorate of potassium mixture, he now generally uses the following:

℞ Acid. salicylic., gr. x—xv.
Sodii sulphit., gr. xxx—xlv;
Glycerinæ, f ʒ ss;
Aquæ, f ℥ iiss.—M.

Here the salicylic acid is rendered soluble by the addition of three times its weight of sulphite of sodium (borax also has the same effect) so that in this prescription we have the advantages of both these reputed antiseptics, which are indicated theoretically, and really seem to be of considerable practical benefit. It is of great importance that in every case in which it is practicable some sort of spray should be used upon the throat; and the most convenient instrument with which to accomplish this is the ordinary little perfumery spray apparatus now in such general use. In order to annoy the child as little as possible, it is best to employ the spray immediately after a dose of the medicine is administered. The combination generally used by Dr. Billington is the following:

℞ Acid. carbolic., m x.
Liq. calcis, f ʒ iv.—M.

He believes that the nasal douche or syringe has saved many lives: and even when the nasal passages, apparently, do not seem affected, it is often useful in reaching portions of the mucous membrane inaccessible to the spray. If therefore the breath should remain fetid after the employment of the latter, it ought to be resorted to; and the mixture mentioned above, containing the salicylic acid, is as good as any other for the purpose.

In adults or large children it may occasionally be of service to apply carefully strong tincture of iron (say two parts of the tincture to one of glycerin) to circumscribed patches of membrane; but, as a rule, topical applications of caustics or astringents by the probang or camel's hair brush do much more harm than good, as they cause exhaustion of the little patients from their struggles to resist, excite an increased flow of blood to the part, and really occasion further thickening and spread of membrane.

Dr. Billington expressed the opinion (which is hardly substantiated by other observers) that quinine is worse than useless in diphtheria in children; being objectionable, if for no other reason, on account of its bitter taste, which makes every dose dreaded by the patient.

In cases attended with high secondary fever, a full dose of quinine, he thinks, may occasionally do good, but five grains of calomel has worked better in his hands. He cannot subscribe to the prevalent opinion that diphtheria will never bear antiphlogistic treatment.

Dr. Billington then proceeded to give an interesting summary of the cases which he had personally observed, prefacing his statement with an allusion to the well-recognized disadvantages to be encountered in dispensary practice. According to his observations, about sixty-five per cent. of all cases of diphtheria occur in persons under five years of age, and it is quite a rare affection among adults (except in the peculiar experience of certain irregular practitioners,) even when individuals are constantly and to the fullest extent exposed to the disease. He has also found that about sixty per cent. of all the cases will recover without any treatment at all, and that about five per cent. will prove fatal whatever plan may be adopted. Out of one hundred and two carefully tabulated dispensary cases treated by him, fourteen died, and eighty-eight recovered; while of seventeen cases in private practice, one died, and sixteen recovered.

The usual duration of the attack, from the commencement of the treatment to the disappearance of the diphtheritic membrane, was only from four to six days. Twenty-four cases in private practice, treated on the same principles by Dr. Wm. Darken, house physician, to the Demilt Dispensary, show even a better result; not a single death occured directlyfrom the disease, though one of the children died several

weeks after the acute attack from some unexplained cause.

A still later series of fourteen cases treated by Dr. Billington in conjunction with Dr. W. E. Bullard (in order that the patients might receive the fullest possible amount of attention) all recovered, so that we have fifty-five cases altogether, with only one death directly attributable to the disease. In a large number of these the attack was of very great severity.

From his observations, Dr. Billington has been induced to believe that a laryngeal or tracheal complication can often be prevented or aborted by the use of the spray, and that even after the membranes have been fully formed in this locality it is of very great service. Calomel has also proved useful in many cases. The inhalation of *hot* vapor, he thinks, renders the surface more favorable to the absorption of septic materials, and therefore injurious.

He did not express a positive opinion as to the identity or non-identity of croup and diphtheria, but apparently seemed to hold to the former view.
—*Phila. Med. Times.*

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TO OUR SUBSCRIBERS.

With the issue of another number the fourth Volume of the Canada Medical Record will be completed. We therefore desire that all who have not yet remitted us their subscription will do so at once. We have placed the *Record* at the very lowest possible rate, and we think we are only asking our due when we request prompt payment.

THE WOMAN'S HOSPITAL, MONTREAL.

This institution, hitherto under the immediate control of Drs. Hingston and Leprohon, has been transferred to the Medical Faculty of Bishop's College, and will in future be managed by it. The Lying-in Department has been placed under the control of Dr. Trenholme, Professor of Midwifery. A ward has been also set apart for female diseases, and a daily out-door clinique will be conducted by Drs. F. W. Campbell, Trenholme, Kennedy and Wilkins. Dr. Hingston has been elected consulting Surgeon, and the Medical Faculty of Bishop's College are its consulting Physicians. We understand that the private wards of the Hospital can be occupied by the patients of any regular physician in good standing. This arrangement will be found a convenience, for it is often a matter of much difficulty to find comfortable private quarters, especially for lying in cases from the country.—*See Advertisement.*

THE CANADIAN MEDICAL MUTUAL Benefit Association has elected the following officers for the ensuing year:— President, Dr. Hodder, Toronto; Vice-Presidents, Dr. Canniff, Toronto; Dr. Jas. H. Richardson, Toronto, Sec.-Treas., Dr. Bridgman, Toronto; Directors—Drs. Winstandley, Pyne, Agnew, Rosebrugh, De La Hooke, and Oldwright, of Toronto; Dr. Jukes, St. Catharines; Dr. Lauder, London; and Dr. Henderson, Ottawa.

A SANITARY UNDERTAKER.

A newspaper, published a couple of centuries ago, contains the following advertisement:—

"James Maddox, coffin maker, and clerk of St. Olave, Jury, London, at the sign of the Sugar Loaf and Coffin, in the Old Jury, secureth the corps of any dead body from any ill scent or annoyance, without embalming, embowelling, or wrapping in sear cloth, for as long time as shall be required, or for as long time as they shall keep them above ground; and if it be desired, they may have a view of the face for three or six months, which he hath performed, as is well known to several persons of quality and others in and about the City of London. This is he that took up the corps at Painswick, in Gloucestershire, after it had been 13 weeks buried. He hath also an excellent way to take up any corps that hath been some time buried, and preserve the same from any ill scent for the conveying of it to any other place, as hath been eminently performed by him. He also (by God's blessing) hath cured several persons of quality of the gout, and giveth ease within half-an-hour, though the pain be never so violent."

PERSONAL.

We were in error in stating in our July number that Dr. Gilbert, jun., son of Dr. Gilbert of Sherbrooke, had passed his final examination before the Royal College of Surgeons of England, in April last. It should have read "primary examination." The final examination was passed, and the Diploma obtained on the 28th of July. We congratulate Dr. Gilbert.

BIRTHS.

At Compton, Que., on the 11th August, the wife of Reginald A. D. King, M.D., of a daughter.

In Montreal on the 31st July, the wife of George F. Slack, C.M., M.D., M.R.C.S.E., of a daughter.

Original Communications.

Address by E. H. Trenholme, M.D., B.C.L., Professor of Midwifery and Diseases of Women and Children, Bishop's College, Montreal; Attending Physician to the Woman's Hospital, of Montreal: Fellow of the Obstetrical Society of London, Eng., &c., &c.

Delivered before the Canada Medical Association, Toronto, August 14th, 1876.

MR. PRESIDENT AND GENTLEMEN,—Having been thrice honored with the Chairmanship of the Obstetrical section, I wish to acknowledge my sincere appreciation of your indulgent favor, and to express my earnest desire to aid, to the utmost of my humble ability, the noble work of this Association.

I must ask your indulgence while I briefly present an imperfect outline of some of the more important advances in gynæcology during the past few years.

The subject is of much importance, far too large for one review, or the few moments at our disposal on the present occasion.

All observers must have noticed the continued researches that have been pursued by many able men during the last four years, with regard to the mucous membrane of the uterus. A short time ago the interior of that organ and the diseases connected with it, were but little known. It is true we have not, by any means, reached the end of such investigations, nor definitely settled some important points connected therewith, but enough has been accomplished to place gynæcology upon a more secure and successful basis than hitherto.

No doubt our improved means of diagnosis, such as Sim's speculum, the uterine sound and probe, the employment of sea-tangle and sponge tents, have paved the way for further advances, and placed the profession in possession of resources that are as yet, perhaps, but imperfectly appreciated. The value of the finger, *per urethrum*, as well as *per rectum*, and the introduction of the finger or hand *per vaginum*, afford us invaluable means for recognizing and treating uterine derangements. Simons' method is second only to Noeggerath's. The rapid dilatation of the urethra, and the exploration of the uterus it thereby affords, is of the greatest value in many cases. As Dr. G. Thomas lately remarked, "it will undoubtedly have a great future."

Much attention has been bestowed upon the physiology of menstruation. We are learning many important and new facts concerning it. To Dr. Williams, of London, Eng., more than to any other, belongs the honour of having recognized the process of nidation and denidation during each menstrual period. But a short time ago we were indisposed to believe that the decidua of parturition and the uterine mucous membrane were one and the same thing, much less to accept the statement that the cavity of that organ was denuded to its muscular tissue. But this is all changed now, not only are these views generally held, but we are constrained to believe that the mucous membrane is removed and restored again during each month cycle. The researches of Dr. Williams, referred to, establish this fact, which has a most important bearing upon the treatment of uterine disease. In fact, it is the basis of all scientific treatment.

Heretofore we have groped along, very much in the dark, and, while our patients fortunately often got well, much that was done was done empirically and at haphazard. A well-known gynæcologist remarked "that his patients sometimes got well." There is, at best, but little ground for boasting of what we have done. Nature does the work, and we, at our best estate, are but her assistants.

Of the various forms of uterine disease, perhaps the most common, as well as most intractable, are such as are connected, with chronic congestion, subinvolution and hyperplasia of that organ. Of subinvolution I will not speak, except to say that it is undoubtedly often the cause of uterine flexions and displacements, with their frequent train of ill-health and misery.

If uterine disorders were confined to the married it would not be so bad—although sad enough—but when we find it so very general among the young and unmarried of our day, the subject becomes invested with utmost importance.

The knowledge we possess enables us to prevent much that exists.

The chief factors in causing uterine congestion and hyperplasia are improper and prolonged exercise shortly before and during menstruation.

It may not, perhaps, be going too much out of the way to designate what I believe to be some of the most objectionable exercises that cause these congestions and displacements of the womb. I refer to promenade concerts and dancing parties, just before and during menstruation; the latter is the most objectionable, as, to the fatigue of the bod which is apt to be excessive, there is superadded the

force of sexual excitement. Knowing as we now do the wonderful changes that occur at such times, it is a matter of surprise that uterine disorders are not more common than they are. We have physiological as well as moral grounds for discountenancing late hours, fashionable dressing, sentimental reading, indolent and luxurious habits which are making sad inroads upon the vigor and beauty of our young ladies. Our present knowledge is invaluable in preventing uterine disease, and absolutely imperative for its successful treatment. With regard to menstrual derangements there are two forms commonly met with, viz., menorrhagia or excessive flow, and also a diminution of the flow. The former is more frequent than the latter. The period suited for the application of internal remedies in one class would be eminently unsuitable for the other class. When the flow is simply excessive and not due to any other disease, it indicates a too rapid or pathological maturation of the decidua, and hence our treatment should be applied during the first half of the menstrual interval. Our object is to promote a more robust and natural condition of the mucous membrane.

Whereas in these cases of deficient menstruation the local treatment is most appropriate during the latter part of the interval, whereby the membrane is excited to a more rapid growth and speedy maturation. The danger of strong applications immediately before or after menstruation is readily perceived. There remains much that might be advanced upon the details of this subject, but time forbids and I pass on to make a few remarks upon the treatment of uterine fibroids. Excision of the uterus is now ranked among recognized surgical operations. The accumulated experience gathered from reports of the operation give us not unreasonable grounds to expect that a much greater success awaits us than it has been the surgeon's good fortune heretofore to enjoy. That we may be able to save one half of such cases, is, I think a tenable hope. There is another mode of dealing with these growth, otherwise than excising them, by removing the ovaries. In those cases where the tumor is sub-mucous or, if interstitial, more sub-mucous than sub-peritoneal we have much reason to expect a favorable issue by means of the hypodermic injection of ergotine. Enucleation may also frequently be resorted to with success. The latter method is more rapid and suitable in cases of excessive and uncontrollable hemorrhage, but is not so safe as the former whereby the tumour is rendered sub-mucous and eventually polypoid, when its removal is comparatively easy.

When, however, the growth is sub-peritoneal or, if interstitial, more sub-peritoneal than sub-mucous we have to deal with a case where enucleation is impossible and the use of ergot hopeless for relief. It is proposed in such a case to excise both ovaries rather than extirpate the uterus. The risk of life is much less, and the success that has followed the proposed method has been such as to commend it to the favor of the profession. In a case reported both ovaries were removed for sub-peritoneal and interstital refibroids after the failure of all treatment to afford lief. For some three months after the operation apparent menstruation continued, but, as the flow was hemorrhagic, astringents were used and the flow effectually arrested without any untoward results. Had the discharge been menstrual it could not have been arrested permanently with impunity. From observing this case we have good reasons to hold to the old view that menstruation depends upon the presence of the ovaries. When their physiological life is ended, or they are removed, menstruation must cease, *i.e.*, nidation and denidation are the results of ovarian activity. Such are the views advanced in the report of this case, and I doubt not they will be certified to as correct by future observers. The subject is an interesting one, and is commended to the consideration of the members of this association.

There is another subject lately brought before the profession by Dr. Lenneker, with regard to the treatment of antiflexions of the uterus by means of removing a part of the mucous membrane from the posterior wall of the canal and allowing the cut surfaces to heal with uterine stem in situ to correct the flexion. The operation is said to be successful and ably advocated by its author. It is, however, not free from serious risks or easy of proper performance, and will hesitatingly be accepted if it wins a place among recognized operations at all.

Before closing these imperfect remarks I wish to refer to Bozeman's new method of treating *vesico vaginal* fistulæ. The most frequent cause of failure is due to the dense and unyielding cicatricial tissue of the fistula. You all know how the wound will gape and the stitches cut into the tissue in these cases. The remedy proposed, by the author referred to, is to remove the cicatricial tissue by pressure and small incisions. By these means he secures the absorption of the dense tissue. The pressure is secured by means of gum-elastic balls of 1. 2 to 2.35 in diameter, also of cylinders of the same material 2.35. to 3.6. The balls and cylinders are perforated and provided with a string which serves for their

emoval. After wearing the small balls three or four lays, much softening is effected, and any cicatricial ›ands felt are incised and a larger globe inserted. This process is continued from three to five weeks, until the vagina is well dilated, the cicatrices remov-'d and the edges of the fistula well in view.

Conscious of the imperfect character of these remarks I kindly thank you for patient attention. Very much more might have been brought before you upon a topic so large and important; and I trust much will be added by the able visitors and members of the society. One has to be content to merely enter upon the threshold of an edifice at once so practical and attractive.

Progress of Medical Science.

REMARKS ON THE PATHOLOGY OF BURNS AND THEIR RATIONAL TREATMENT.

By Bedford Brown, M.D., Alexandria, Va.

After all that has been said and written relative to the treatment of this class of injuries, both by the educated and uneducated, the medical history of burns still remains far from being satisfactory, and as yet we have not made that progress in their amelioration and cure which could be desired.

Probably we are too much disposed to view these most serious forms of injury in an isolated light, as local in character, merely, rather than as affections holding most intimate and important relations with the general system.

The first impression made upon the general system by the local action of intense heat is that of nervous shock. This condition is too clearly understood to require allusion here. But there are certain coincidental morbid phenomena associated with shock, which are of more importance and less comprehended.

In those cases of excessive nervous shock caused by extensive burns, thrombosis of the heart and large veins entering the right side of that organ not unfrequently occurs. There are peculiar reasons why thrombosis should be a more common result of shock from burns than from almost any class of injury, this phenomenon being due to a combination of causes, one in the form of excessive nervous depression, the other from disorganized blood from the local action of heat which has been conveyed from the burned tissues to the centre of circulation. Thus, a few disorganized blood-corpuscles or a small portions of coagulated fibrin, or albumen, when carried into the general circulation, at once become nuclei for the formation of thrombosis of the heart and great vessels.

Hence the necessity of accurate diagnosis between simple nervous shock and thrombosis in point of treatment. In simple shock the pulse, though exceedingly feeble, is not usually much accelerated, and is generally regular in rhythm. The cardiac sounds are very feeble, but distinct. The temperature is greatly reduced; the complexion pallid; the respiration is but little increased in frequency, and there is an absence of præcordial distress, though nausea may be present.

On the contrary in shock with thrombosis, the breathing is painfully labored, and frequent. The action of the heart is tumultuous, irregular, feeble, and very frequent. The complexion is livid, while the skin is cold and bathed in perspiration; præcordial distress is painful, and the cardiac sounds almost obliterated.

There cannot be a rational doubt that death following extensive burns directly is often the immediate result of cardiac thrombosis.

Secondary stages of burns.—Following the reaction after the first shock to the nervous system has passed off, probably capillary embolism and its legitimate consequences constitute one of the chief causes of mortality. Here, as in thrombosis, those properties or rather constituents of the blood whose vitality has been destroyed in the burned tissues, not only become a septic source, but, after passing through the large veins and heart, find lodgment either in the pulmonic or portal circulation, producing blood-stasis, hyperæmia, inflammation, and suppuration. Hence we generally see these peculiar phenomena in one or the other of these two circulatory systems. It is sometimes witnessed in the cerebral circulation, when symptoms of congestion, with active delirium, and, finally, coma, are prominent.

Thus we may have in the pulmonic, as a result of capillary embolism, chill, followed by either pleuritis pneumonitis, or abscess, with inflammatory fever; in the portal system, peritonitis, ulceration of the intestines, with either diarrhœa or dysentery, and abscess of the liver. In many of these cases all the characteristics of true pyæmia are developed. These microscopic emboli appear not unfrequently to manifest a tendency to find lodgment in the mucous surface of the small intestine,—for instance, the duodenum, — and then induce ulceration. This is probably due to an effort of nature to eliminate them from the circulation. As evidence of the fact that mere extent of burned surface is not always the cause of death, numerous instances of very extensive burns have come under the observation of the writer, which were progressing favorably in the healing process, when suddenly symptoms of capillary embolism, congestion, and inflammation of some internal organ, or ulceration with dysentery, appeared and speedily terminated the case.

On the local changes in the tissues from burns.—No other variety of injury either from mechanical or chemical cause is attended with such protracted and unceasing pain as that from burns. This peculiar element of this class of injury is probably a serious obstacle to the progress of restoration. All painful wounds heal less readily than when painless. We often see far greater destruction of tissue from other causes followed by but little pain, and which are much more rapidly healed. This peculiarity of burns is doubtless due both to the exposure and injury of the vital organism of the myriads of terminal branches of

sensitive nerves supplied to the skin. Thus, the innumerable termini of these nerves which are destroyed, and constantly exposed, become equally as innumerable centres of exquisite sensibility and pain. That constant tendency to contract in burned tissue, whether vascular or fibrous, produces unceasing pressure around these inflamed nervous termini, and causes incessant pain, until finally, by this compressing process, their organization is destroyed, as is indicated by the great want of sensibility in the cicatrix.

While it is true that the destruction of vascular and fibrous structures by the action of intense heat is a leading difficulty in the way of healing these wounds, that irritation constantly present caused by the myriads of inflamed and sensitive nervous branches is equally a cause of protracting their progress. Then, in the healing process of burns, *painfulness* and *contractility* are among the distinguishing features.

This is true even of the granulations which form the new tissue. They are firm, more cartilaginous, more sensitive and painful, and their structure more contractile than any other. Here again, may not this in part be due to those minute bulbs of the inflamed nervous branches keeping up an unceasing irritation?

This peculiar contractility of burned tissue not only tends to obliterate the nervous branches entering it by compression, but also tends to diminish the calibre of capillary vessels to such an extent as to comparatively unfit them as the carriers of blood-corpusles. Hence this newly formed cicatrical structure is reduced some what to the standard of cartilage and is no longer subject to those active vital operations of disintegration, waste, and renewal that other more vital tissues are. Therefore, whatever form they assume is permanent. In this manner the nervous supply is curtailed, causing a diminished sensibility and circulation in the cicatrix.

On the general treatment of burns.—In the treatment of simple primary shock, while all concede the necessity for anodynes, the free use of diffusible stimuli and the sulphate of quinine are of great importance. The process of nervous shock in these cases has some analogy to chill, as when reaction returns it is disposed to assume the form of fever. The quinine in such cases not only aids in restoring reaction, but it also moderates it, and prevents a high degree of febrile excitement.

In shock with cardiac thrombosis, opiates are dangerous. Quinine in large doses is too depressing, but in small quantities is useful. Ammonia in the form of the liquor, with iodide of potassium, and alcoholic stimulants, constitute the most important remedies. The following combination is a valuable one under these distressing circumstances:

℞ Liq. ammon. fort., f℥ ij;
Potas. iodid., ℥ iss;
Glycerinæ, f℥ i;
Elix. calisayæ, f℥ v.—M.

Of this a tablespoonful may be given every hour, diluted. The ammonia might also be used hypodermically with advantage.

Those cases of hectic fever arising during the progress of very extensive burns with copious suppuration, are best treated with a combination of tinct. of the chloride of iron, chlorate of potassium, and quinine. For instance, in a case of burn where the entire cutis from the toes to the hip was destroyed, the entire surface of the limb became a mass of suppurating granulations, the amount of pus excreted daily being enormous. Hectic fever with great exhaustion followed. This method of treatment was adopted, and in a month the hectic symptoms had disappeared, the suppuration subsided, and the extensive injury rapidly healed. In those cases of internal inflammation, suppuration, or ulceration arising from capillary embolism either with or without symptoms of pyæmia, those remedies are equally valuable, but they should be associated with antiseptics of a decided character; carbolic acid in the form of sulpho-carbolate of sodium is probably one of the best adapted of all this class for internal use. The external use of the acid owes its chief value to its antiseptic action over the system when absorbed. The question of sepsis in burns is a much more important one than is generally supposed. Why should it be otherwise? The large amount of tissue and blood injured, and often disorganized in these cases, affords an abundant source for the development of septic material, which, when absorbed into the general system, is the true cause of many of the local and general morbid phenomena heretofore attributed merely to sympathetic influences. Hence the infinite importance of both internal and external antiseptics, in all cases of serious burns. In many of those cases of sudden fatal termination from comparatively slight burns, blood-sepsis or septicæmia is the real cause of death. Therefore, in all serious cases of burns, the free use of antiseptics, both internally and externally, to meet this condition, becomes an important element of treatment. Typhoidism in the type of febrile reaction in burns as in wounds always indicates septicæmia.

Local treatment.—Of all local applications in the experience of the writer, iodoform, prepared with extract of conium, and spermaceti ointment, with a small portion of carbolic acid, appears to meet the several indications best.

This agent acts as a certain and most effective sedative on the painful and irritable exposed surface, and at the same time as an antiseptic. It reduces irritation, inflammation, and suppuration, when in excess, in a remarkable manner. It converts a most painful and irritable wound into one comparatively painless with promptness.

This remedy is also an excellent promotive of healthy action and of the healing process. I have experimented with iodoform ointment in these cases repeatedly, and always with the same pleasant result. The use of this preparation has another advantage: it renders the constant use of anodynes unnecessary. The following formula has been found the best:

℞ Iodoformi, ʒij;
Unguent. cetacei, ℥i;
Ext. conii, ʒiss;
Acid. carbol., x gtt.—M.

This ointment is spread twice daily on soft linen, and applied over the inflamed surface, and then enveloped in oiled silk. No other dressing is necessary. The only objection to the use of this remedy is its peculiar odor. In those cases of burns attended with great *dryness* of surface from destruction of vitality and want of exhalation, the wound before being covered with the iodoform ointment, should be coated over with the common linimentum calcis. This affords a soft and moist dressing, which in no wise interferes with the action of the iodoform.—*Philadelphia Medical Times.*

THE USE OF ARSENIC IN THE TREATMENT OF DISEASES OF THE SKIN.

Dr. L. Duncan Bulkley, Physician to the Skin Department of Demilt Dispensary, New York, presents (*New York Medical Journal*, Aug., 1876) the following summary in regard to the rules to be observed in the use of arsenic therapeutically:—

1. Arsenic, when administered in medicinal doses, has quite another action from that manifested by poisonous doses; the average dose of the former is one twenty-fourth of a grain of arsenious acid, while the smallest toxic dose is stated at two grains.

2. Arsenic in medicinal doses does not produce any slow poisoning, but has been administered for months or years in quantities a small portion of whose aggregate amount would destroy life at once. Hebra has administered a total of more than half an ounce to a single patient. The accounts of Hetoxiphagi of Styria are true, and arsenic is eaten by some for many years without apparent ill effect.

3. Arsenic given by a careful practitioner, in doses to be effective, need never produce any symptoms which should cause regret.

4. Arsenic is eliminated very rapidly, chiefly by the bowels and kidneys, so that the urine shows evidences of it in a few hours; no trace of it can be found on careful analysis of the body after death, two weeks after the last dose of arsenic.

5. Arsenic, therefore, does not accumulate in the system, and no fear of this need be entertained; but when it is administered in increasing doses absorption may be hindered, and, when the doses become very large, active absorption of the large dose may give rise to a suspicion of cumulative action.

6. The first symptom of a full dose of arsenic, in a very large share of cases, is a fulness about the face and eyes, and conjunctival irritation and tenderness. This need not be exceeded, but may often be kept up with advantage to a slight degree till the disease yields. Before any harm is done by the arsenic, either this or a slight nausea or diarrhœa manifests itself.

7. Arsenic should always be given with or just after meals; it is often best to give it alone, or with a small amount of bitter infusion.

8. The bowels should be first well purged, and an occasional laxative will both assist the action of the drug and prevent or modify some of its unpleasant effects.

9. If the urine becomes loaded and the tongue coated, it is best to stop the medicine for a short time and give diuretics; some of these disturbances can be prevented by combining an alkali, as acetate of potassa, carbonate of soda or aromatic spirits of ammonia with the arsenic.

10. The most serviceable forms in which to use arsenic, named in the order of their value, are: solution of the chloride of arsenic, solution of the arseniate of potassa, that of the arseniate of soda, and the arseniate of ammonia, arsenious acid, iodide of arsenic, and the arseniaes of iron and quinia; of as yet untried efficacy, solution of the chloro-phosphide of arsenic and arseniate of antimony.

11. The dose of arsenic, small at first, is to be increased slowly until some of its physiological effects are manifested or the disease yields; it may then be somewhat diminished.

12. It is very important that arsenic be taken very regularly and persistently, and always under the supervision and frequent inspection of the physician.

13. Arsenic is valuable in chronic rheumatism, hence is useful in arthritic eruptions; it is serviceable in certain neuroses, as chorea and neuralgia, therefore in skin diseases with neurotic elements; and it possesses anti-malarial properties, and is consequently serviceable in diseases of the skin showing periodic symptoms, as intermittent urticaria, etc., likewise in patients with other skin diseases who have been exposed to miasmatic influences.

14. Arsenic is certainly valuable in psoriasis, eczema, pemphigus, acne, and lichen, in proper cases and when due regard is paid to the secretory organs, and to diet and other elements of general health; of less certain value in lupus, ichthyosis, sycosis, verruca and epitheliomatous and cancerous diseases; it is absolutely useless or harmful in the syphilodermata, the animal and vegetable parasitic diseases (except in rare cases), in elephantiasis Græcorum and Arabum, in purpura, true prurigo, herpes zoster, scleroderma, molluscum contagiosum and fibrosum, keloid, vitiligo, nævus, etc.

15. The only local application of arsenic which is justifiable is either one where the strength is so weak, and the extent of its use so small, that there is no danger from absorption, which may occur when not expected, or, one of such a strength as to kill the adjoining tissue at once, and so prevent absorption, as is the case with Marsden's mucilage.

ON A POWDER FOR THE PREVENTION OF CICATRICES FROM VARIOLOUS PUSTULES.

La Salute in this paper (*Paris Médical*, June 1, 1876, from *La France Medicale*) says he has proved in many cases the good effects of a powder composed of four parts flowers of sulphur and one part of red precipitate. He has been able by the aid of this topical application to prevent the formation of evident cicatrices on the face of a variolous patient. He was led to the application of this mixture in

cases of confluent small-pox, by the success which he had obtained with it in many forms of disease of the skin, particularly eczema and acne. This powder should be placed on a slight layer of glycerine previously spread on the pustules which have come to the point of suppuration. The glycerine insures the adhesion of the powder, which dries it up, forms a crust, and falls off, leaving the skin free from cicatrices.—*London Medical Record*, July 14, 1876.

TO PRESERVE ICE IN THE SICK ROOM.

A simple method to keep ice for use in the sick room is mentioned in the *Lancet* by Mr. S. Gamgee. This is to cut a piece of flannel about nine inches square, and secure it by ligature round the mouth of an ordinary tumbler, so as to leave a cup-shaped depression of flannel within the tumbler to about half its depth. In the flannel cup so constructed pieces of ice may be preserved many hours—all the longer if a piece of flannel from four to five inches square be used as a loose cover to the ice cup. Cheap flannel, with comparatively open meshes, is preferable, as the water easily drains through it, and the ice is thus kept quite dry. When good flannel with close texture is employed a small hole must be made on the bottom of the flannel cup, otherwise it holds the water, and facilitates the melting.

FASHION AND ITS PENALTIES.

By Washington L. Atlee, M.D.*

Gynæcology (the disease peculiar to women), as a branch of study, was scarcely known half a century ago. The vast discoveries made in uterine pathology, and the advance in the treatment of the diseases of females, even in the life-time of many of us, are beyond estimate. A large majority of the members of the Society can well appreciate the extent of this progress. Old physic, if he has kept pace with the course of events, will acknowledge that in the early part of his professional career he knew little or nothing, comparatively of the proper treatment of such diseases. He can look back and call to mind scores of patients who went down into the grave without relief, and who could have been saved had he possessed that knowledge which the profession now claims. The proportion of female diseases, however, was no doubt much less in the earlier part of this century than it is now, because the habits of the people were much more simple and healthful than in the present day. Ladies then occupied the good old-style one and two story houses well-ventilated by wood-fires on open hearths; wore six yards of material for a dress; supported by suspenders upon their shoulders; did not constrict their bodies below the waist to the smallest possible wasp-like demensions, but allowed their lungs to expand in the normal direction: wore low-heeled shoes to enable them to walk erect and throw the centre of gravity on to the spinal column, where it properly belongs; walked and lived much in the open air: rode on horseback instead of going in carriages, which are a modern luxury; retired early to bed and arose therefore early: did not revel most of the night in over-heated, crowded, and badly-ventilated rooms, nor slumber away the whole of the next morning in their close chambers, while the balmy fresh air outside was inviting them to its embrace. Age may have blunted my sensibilities and clouded my judgment, but I remember that in the ardor of my youth, I admired the girl of that day as eminently healthful, rosy, buxom, and beautiful; and no doubt Thompson had the same lovely object in view when he wrote:—

> "A native grace
> Sat fair proportion'd on her polished limbs,
> Veil'd in a simple robe, their best attire,
> Beyond the pomp of dress: for loveliness
> Needs not the foreign aid of ornament,
> But is, when unadorn'd adorn'd the most."

But as time has advanced customs have become different, and in proportion as they have departed from simplicity have the infirmities of women increased. Our dwellings have risen to three, four, and even five stories, and in like proportion have dress patterns augmented. The amount of dry goods required to furnish one dress now would have sufficed to clothe four or five of our good mothers when they were young women. How can we explain this singular phenomenon? Have the dimensions of our lovely sisters quadrupled, or has that remorseless goddess Fashion imposed upon the tender frame immense weight! Look at the interesting, delicate girl, pallid and wan, struggling wearily under a weight of clothing which the strongest of our sex would not tolerate; all suspended, not upon her shoulders, but upon her necessarily constricted waist See this beautiful pea-fowl as she drags her long trail through the tobacco-juice, the slush and mud of our dirty pavements, scraping up sticks, straws, old paper, cigar-stumps and filthy quids of tobacco, and dropping them at every crossing—and thus block after block repeating the same disgusting and injurious performance! After such a scavenger-like promenade she finally reaches home, dragged out with the heavy burden she has carried, her costly silk or satin skirts all smeared with the most offensive filth, her stockings soiled, and her limbs wet and cold! You will notice, also, gentlemen,—I say gentlemen, for I am addressing you, and it is presumed that ladies do not hear me—that your patient has much material in her mere flounces and her enormous pack-saddles (I will not mention the technical name) as would make an old-style dress, and which is so much additional useless and injurious weight. But this is not all. Let us look at the leather and prunella. Follow in the footsteps of this fair one, and examine the imprint of her shoes, the heel-mark scarcely larger than the thumb-nail, then a skip, and then again the impression of a very narrow sole. Measure her tiny track. Behold! it is only five or six inches long? What a celestial foot for so stately a maiden! Our antipodes in the Celestial Kingdom—the heathen Chinese—could scarcely do better. Now look at this artistic shoe; you will notice several peculiarities— a heel about two inches high, shaved down almost to a point, and

planted forward almost under the instep. What a commentary upon the work of the Creator! He designed the os calcis for the heel, but the worshiper of Saint Crispinus says that it is properly located under the scaphoid and the cuboid bones. Nature has made the sole of the foot, at least the points of support, on the same level, but Mr. Lapstone says this is a mistake, and hence he tilts it up two inches higher behind! What is the effect? A lady's foot s crowded forward, all her toes are jammed together, nd the great toe, which should be in line with the nside of the foot, is forced outwards across the other oes. Besides she is constantly walking down hill, nd, indeed, in regard to health, is really going lown hill all the time. If we could substitute the *anatomical* for the *fashionable* shoe maker, no such outrage on the laws of hygiene could occur.

Let us glance for a moment at the pathology of hese dogmas of fashion. Examine a lady in full lress thus poised: high heels, and a constricted vaist supporting from ten to thirty pounds of merhandise! She cannot, if she would, maintain a erfectly erect position. Look at her figure: her eels are tilted up, she is partly on tiptoe: the feet, ead, and shoulders are thrown forward, and the ips must necessarily take an opposite direction to naintain the proper equilibrium. Why this is a aricature, a burlesque on female beauty! But when he stands forth as God has made her—erect in her ne proportions; with her full, finely chiseled bust; er ample waist responding naturally to every inpiration; animated by the glow of vigorous health; nd clothed so as not to clog any vital function, nor ide every grace and walks forth as only she can alk who practically recognizes the physiology of ne foot; she carries herself with true majesty; she "a thing of beauty and a joy forever," and we bow own in adoration to the most beautiful object in reation. Drop the plummet from her fair forehead, nd the line is parallel with the axis of her body, hile in the other case it falls anterior to the body, esembling the string when taut on its bow, and rms the hypothenuse of an obtuse triangle. Sure en Venus de Medici was never chiseled from such odel!

> "Old as I am, for ladies' love unfit,
> The power of beauty I remember yet."—DRYDEN.

But this is not all. Beauty and health are twin sters. Examine these two beings under another pect. Place your line on the mastoid process of e one, and the plummet, as it should do, will rictly indicate the axis of the spinal column, and lleolus. This therefore, is the centre of gravity. d its force does not impinge upon a single vital gan. Make the same experiment with the other, ne line of gravity will be very different: it leaves e vertebral axis, and passes through the organs of e chest, the viscera of the abdomen, and impinges on the pelvic organs. Add to this a waist conicted and rigidly fixed. Now what must be the sult? The upper wall of the thorax being an yielding cone, and its lower border rendered inpable of expansion, the only compensation must be in the direction of the least resistance. We all know where that is. There are from twenty to forty inspirations every minute during every day of our existence, and in such a faulty attitude of the body the diaphragm is driven down by each inspiration, in the line of the centre of gravity, like the piston-rod of a pump, forcing every organ below it more or less out of place. All violent and unusual exertions of the body also act in the same direction.

Is it any wonder, therefore, that the diseases peculiar to females should have increased to so alarming an extent? And is it strange that, with all these counteracting causes, we should find those ills so difficult of cure, and, when cured, so apt to return? It is fortunate for women amidst the follies of dress and the foibles of fashionable society, that pathology and treatment have made so much progress in uterine troubles. Were we not in advance of the knowledge of old physic, and did we possess no better means of combating the destructive influences of the times, our households would become female hospitals, and the treatment of such diseases would be an opprobrium to medicine. But to do the best we can, this "patched-up" existence is but a poor substitute for that bouyancy of health and spirits which is the natural birthright of the majority of women.

I have often said to my lady patients privately, and, gentlemen, I say it to you publicly, that if the ladies of this country, instead of being travestied by milliners and mantua-makers, and enslaved by every change in the tide of fashion, would, before adopting them, submit their costumes to a committee of medical men, or better, of medical women, they would be infinitely more comfortable, would enjoy better health, more satisfacto i y fulfil the duties of maternity, and of marital life, and meet the requirements of every domestic and social position. We certainly would recommend clothing carried with ease and comfort; we would suspend all garments upon the shoulders: we would not constrict the most important part of the body, making that portion of the chest, which is naturally the most expansive, a contracted, immovable *point d'appui* for every inspiration to drive down and displace the vital organs; we would have the shoe to fit the foot, not forcibly adapt the foot to the shoe: we would order the heels to be low and broad, and placed where the Almighty designed them; we would discard the furs from the neck and shoulders for common use, reserving them for extraordinary occasions, and veto the use of unwieldy masses of false hair—as these portions of the body are so near the centre of circulation as to have their heat well maintained: in short, in adopting any style of dress we would do no violence to the laws of physiology and hygiene. This could always be accomplished in perfect harmony with goo taste. The health of women, which is so intima associated with the beauty, welfare and hap p i the whole human race, is too valuable to be sacrificed to the blind and indiscriminating tyranny of fashion.

In these remarks I mean no offensive criticism on the manners and customs of the day. I am incap

able of this. As physicians, we should be the conservators of public health; and we have no legitimate right to be counted in the profession, if, through any mercenary or other unworthy motive, we fail to promote it in every possible way.

Growing out of the debility and ill health to which our female patients are so often the victims, is the resort to tonics, stimulants, nervines and opiates, the former to maintain their strength, and the latter to quiet their nerves. This, I regret to say, is not sufficiently discountenanced by the profession, and often degenerates into a habit which entails a life-time of misery and distress. Tonics and stimulants can rarely, of themselves, add tone or strength to the animal system, and to regard them and to employ them with that view, is, to say the least, a most hazardous proceeding. There are times when they may be employed to advantage, but I apprehend that the cases requiring them are comparatively rare. Permanent strength is the result of molecular nutrition. And true nutrition is the effect of the assimilation and appropriation of wholesome food supplied to the stomach, mingled with and elaborated pure air inhaled by the lungs, and then subjected to the recuperative and depurative processes throughout the whole body—while the great pendulum, required to keep this machinery in healthful action, is exercise both of body and mind. The functions of life require both motion and rest to maintain them in a normal condition. Constant activity will destroy them by wear and tear, while uninterrupted inertia will sooner or later paralyze vital force. Bandage the arm in an immovable splint, and in six or eight weeks endeavor to exert its muscular power. It is gone. As with the muscular system so with the health of all other anatomical divisions of the body—exercise, in due proportion, is essential. If, then, our American ladies would depend upon exercise in the open air conjoined with simple habits, non-luxurious living and cheerful company, more than upon tonics and stimulants, they would soon secure that vigorous state of health that would enable them, by an effort of the will, to discard that other vice of using nervines and opiates for every trifling irregularity of the nervous system. It would be cruel to deny to the suffering some mild sedative, but the constant dependence upon such agents is weakening and demoralizing, and lowers the mind from that supreme influence over the body which is its rightful dignity. Besides, there is a terrible responsibility associated with these habits on the part of mothers which can scarcely be estimated. You will understand this when I announce the words of a prominent London physician, who says: "*the babies of London are intoxicated from the time they are born until they are weaned.*" How far this will apply to the little innocents of America I will not pretend to say; but the enormity of the practice, if such exist, may be estimated by a reference to the decalogue which tells that the iniquity of the parent shall be visited upon the children unto the third and fourth generation.—*New York Sanitarian.*

THE TREATMENT OF SEVERE SPRAINS.

On this topic Mr. S. Gamgee says, in the *Lancet*, not only can the patient bear well-applied pressure from the first, however great the swelling and acute the pain, but it may be laid down as a general proposition, to which I have never seen an exception, that, in severe sprains, effusion is most surely checked, and once it has occurred, its absorption is most rapidly promoted, while pain is most effectually relieved, by pressure and immobilization. It is as true now as when Velpeau taught it, that "compression is the sovereign resolvent in contusions with infiltration and swelling."

By way of illustration, I may briefly relate the progress of a case in which I was consulted by my friend and colleague, Mr. John Clay. His patient, an elderly gentleman, had recently sprained his right ankle in going over a ploughed field. As he had a policy in one of the accidental insurance companies, its medical officer saw the case, and he advised an incision, to give vent to matter, which he thought had formed in the centre of the swelling. In this advice he was sustained by a hospital surgeon, who was, additionally, called in on behalf of the company. Mr. Clay, dissenting, invited my attendance. I found the right ankle hot, and exquisitely painful. It was so much swollen that its circumference over the heel exceeded that of the corresponding sound joint by nearly an inch and a half. The skin on the outer side of the ankle was especially hot, red, tense, and shining; palpitation in this situation communicated a feeling of elasticity, closely simulating, but not amounting to fluctuation.

With Mr. Clay's concurrence and assistance, I enveloped the limb from the toes to the knee in fine cotton-wool, applied well-moulded pasteboard splints on each side, bandaged with methodically uniform compression, and starched the outside. A second consultation was held in the course of three days, when I found the patient very much easier. He had had a good night's rest and had been able to turn over in bed, and could bear the limb lifted and put down again without pain. On opening the apparatus in front I found the swelling had considerably decreased; the previously red skin was yellowish and shriveled, like the skin of a late russet apple, not looking, as at my first visit, like the red shining skin of a prime Blenheim. That shriveled look is always a good sign. I pared the edges of the case, and readjusted with firm pressure. Three days later more shrinking was met by fresh paring, and still firmer bandaging. At a consultation held a fortnight after the first, the patient was perfectly easy. No one thought any more about puncturing in search of matter. The insurance company compromised the affair by paying down a substantial sum of money, and I replaced the pasteboard apparatus by strapping the joint with emplastrum elemi spread on leather, and a Churton's bandage applied with smooth firmness.

When I last saw the patient with Mr. Clay, he was walking about his garden with a stick; the plaster had been very properly removed, and the

swelling had subsided, the only difficulty to locomotion being stiffness of the joint. I cracked the adhesions by using the requisite amount of well-applied force, and we concurred in advising free use of the joint. In a note which I received from my colleague seven weeks after our first consultation, he wrote: "Our patient is progressing very satisfactorily; he comes to business every day, walks about a good deal, and does not require surgical supervision."

DOUBLE OVARIOTOMY—TRANSFUSION OF MILK—RECOVERY.

Dr. T. G. Thomas, (N. Y., Obstet. Society,) presented two solid tumors of the ovary, both removed from the same patient, whose history he related as follows:

Three weeks ago he was consulted by a lady, thirty-two years of age, the mother of three children, the youngest of which is seventeen months. The patient had always enjoyed good health until the birth of her last child, after which she gradually lost strength, suffered from night sweats, and became very much emaciated. She consulted Dr. Clark, of Oswego, who made an examination and discovered a solid tumor of the right ovary of the size of a hen's egg, which he thought malignant in character. The tumor grew with moderate rapidity until it reached the size of the larger one exhibited, plus about one-third lost by shrinkage since its immersion in absolute alcohol, *i. e.*, about the size of an adult head. The patient in the meanwhile consulted Dr. Chauncery L. Mitchell, of Brooklyn, where she resided, and Dr. Atlee, of Philadelphia, the latter of whom said that the tumor was malignant, and that an operation for its removal would be extremely hazardous. When Dr. Thomas first saw the patient she was exceedingly feeble and emaciated, appearing like a person suffering from diabetes. The abdomen was tender to the touch and distended by a tumor, which reached above the umbilicus. The general and local features of the case reminded him of two cases of adenoma of the ovary which had previously occurred to him; he therefore made that diagnosis, and dissented from Dr. Atlee as to the chance of recovery, telling the friends of the patient that there was ninety chances out of one hundred against her, but probably ten in her favor. Wishing to make a further examination in the presence of several gentlemen of this city, Dr. Thomas requested the patient to call at his office again, but she was so exhausted by her first visit that she was unable to comply with his request. The friends were very anxious for the removal of the tumor, and the operation was therefore fixed for Thursday, October 14th, and performed at 3 p.m. on that day. On opening the abdomen, which contained no dropsical fluid, a large solid tumor of the right ovary was found, the pedicle of which was first secured by a clamp, which was subsequently removed, however, and its place supplied by a ligature, the pedicle being then dropped. The left ovary was found in Douglass' cul-de-sac, pushing the uterus forward. Previous to the operation Dr. Thomas had thought this tumor behind the uterus to be a portion of the large tumor, and probably adherent, which fact would have rendered the prognosis still less favorable. The left ovary was removed, the pedicle ligated and dropped. The duration of the operation was only thirty-six minutes, which was fortunate, as it is important not to keep the abdominal cavity open too long, or the patient for a long while under ether. After the operation the patient was seized with vomiting, which continued until the following Saturday, and obliged nutrition to be performed entirely by the rectum. On Saturday she had a severe metrorrhagia (after having been amenorrhœic for the last three months), and became very much prostrated, pulse, 140, temperature 101°, no febrile reaction. On Sunday, Dr. Thomas left for Rhinebeck, where he had an operation to perform, leaving Dr. S. B. Jones in charge of the patient. In the afternoon he received a telegram that she was sinking, and apparently near death. During the night, however, she rallied somewhat, and appeared slightly better when he saw her on Monday morning. In the evening, between 6 and 7 o'clock, however, he received a dispatch, saying that she was sinking rapidly. He hurried to Brooklyn, arriving there at 8 o'clock, and found the patient bathed in a cold, clammy perspiration, and exceedingly collapsed, the pulse 142-145, sometimes entirely lost at the wrist; and in his opinion, and that of the attendents, the end approaching. Preparations had already been made to perform transfusion with milk in case of necessity, for which Dr. Thomas had left directions in the morning; an Alderney cow was driven into the yard and milked into a pitcher covered with gauze, the pitcher standing in a pail of warm water. All impurities were thus prevented from entering the milk, which was kept at a proper temperature by the warm water in which it stood. The canula was introduced into the median basilic vein, and nine ounces of milk were gradually injected. Dr. Thomas used the transfusion apparatus devised by Robert and Colin, of Paris, which consists of a large funnel, into which the fluid to be transfused is poured, at the bottom of which funnel is an opening connecting with a syringe, to which is attached the tube leading to the canula in the vein of the patient; closing this opening in the bottom of the funnel is a movable ball of aluminium, which, being lighter than any fluid, but heavier than air, when the mouth of the funnel is turned upward, by its own gravity effectually closes the opening against the entrance of air with the fluid when the piston of the syringe is drawn back in filling, or pushed forward in emptying the syringe. This ingenious contrivance was used with great satisfaction in this case. After the injection of a few ounces the patient experienced no sensation whatever, the pulse being feeble and beating 160-167; but when six ounces had been introduced, she at once complained that her head felt like bursting, a rigor came on, followed by high temperature, the pulse beating 152-155. These symptoms continued for

some little time after the completion of the transfusion of the nine ounces of milk. One hour afterwards she fell into a sound sleep, which continued all night, and from which she was not aroused for the purpose of giving her nourishment, because she had latterly been unable to retain anything administered either by the stomach or rectum. The next morning, Tuesday, she was slightly delirious, but much stronger, the pulse 116; she said that she felt "as though she were going to get well." From that time she improved steadily, and is now out of bed and out of danger, and doing well.

Dr. Thomas said that he would not positively assert that the transfusion of milk saved the life of the patient, but his firm conviction is that it did.

The tumors were both of the same structure, with a dense, fibrous feel, but still not like a uterine fibroid. The larger shows a deep sulcus in which runs the Fallopian tube; the smaller is about the size and shape of a kidney, its surface like that of a cirrhosed liver in appearance. Specimens of the larger tumor were sent to four gentlemen for microscopic examiation, two of whom reported it to be adeno-sarcoma, a mixture of embryological overian elements and sarcomatous cells, and the other two simple adenoma.—*American Journal Obstetrics.*

The transfusion of milk, as detailed in the above article, was first suggested and prracticed by the eminent Dr. Hodder of Toronto, in the collapse of Asiatic Cholera. In his full article Dr. Thomas gives Dr. Hodder full credit in the matter.—*Editor Record.*

TREATMENT OF RHEUMATIC FEVER BY SALICYLIC ACID, UNDER THE CARE OF DR. BROADBENT, AT ST. MARY'S HOSPITAL.

Few diseases have had brought against them a heavier armament of drugs than has acute rheumatism, It has been stormed by alkalies and salines, attacked by acids, assulted by perchloride of iron and by quinine, surprised by propylamine and elaylchlorure, drained by venesection and purgatives, flooded alternately with hot and cold water, alarmed with blisters, blasted with hot air, lulled by opium, and appeased by chloral hydrate. In addition to these, it has been constantly harassed by the raids of lesser foes, such as lemon juice, citric acid, belladonna, and iodide of potassium. Now another apparently powerful enemy has appeared. Salicylic acid has been shown by Stricker to be able to prevail against some cases of acute rheumatism, and Dr. Broadbent's experience seems to confirm this character. The beneficial action of the drug in the following cases was constant and unequivocal. Whether the reputation of this remedy will prove more durable than that of its rivals remains to be seen. The drug is at least worthy of a careful and complete trial.

For the following notes we are indebted to Mr. Jackson Gawith and Mr. H. Sworder, house-surgeons.

Case 1. E. H., aged thirty-one, domestic servant, was admitted Feb. 2d, suffering from rheumatic fever. She was first taken ill on Jan. 28th. On admission, she had severe pain in the left ankle, the right knee (which was greatly swollen, tender, and contained fluid), and the right wrist and elbow. The heart's action was frequent, the sounds normal; temperature 103°; pulse 128. Salicylic acid was ordered to be given in doses of seven and a half grains every hour for six hours.—6.30 P. M.: After having taken four powders, the pain in the joints was not quite so bad; perspiration not increased; heart sounds normal; pulse weak, 120; temperature 102.2°.—11.30: Seemed comfortable; had slept soundly for three hours. Tongue furred, but moist; temperature 101.2°; pulse 100.

Feb. 3. Perspired freely during the night. Had not been sick. Pain in legs somewhat increased on movement; tongue clean; bowels opened; temperature 89·7°; pulse 96.

4th. Better; legs not painful, but stiff on movement; temperature 99.2°; pulse 90; heart sounds normal.

5th. Patient had a very restless night, but the pain in the joints was much less, and there was less stiffness; temperature 98.80; pulse 84.

6th. The salicylic acid was ordered three times a day. Patient quite free from pain; joints of normal size, not tender or stiff. Heart sounds normal, appetite improving. Temperature 98.4°; pulse 80.

7th to 14. Convalescence satisfactory, and she was discharged on the 14th, feeling quite well and strong.

Case 2. L. W., aged seventeen, a valet, was taken ill on Feb. 19th, remaining in bed next day on account of pain in his legs and swelling in his right knee. On admission on the 23rd the symptoms of acute rheumatism were well marked. The legs were drawn up and very painful. Temperature 103°; pulse frequent, artery large, full between beats; a grave soft systolic murmur heard at apex of heart. Fifteen grains of salicylic acid ordered every hour for six hours. The first powder was taken at 6 P. M., the temperature at 5.35 being 102.6°; pulse 120.—8.35: Temperature 102.4°; pulse 114.—10.30: Temperature 100°; pulse 110. By this time he was quite free from pain.

Feb. 24th. Patient slept soundly and perspired very freely during the night. There was a little pain again in the right leg; bowels not open; tongue furred. Temperature 100°; pulse 108. At about 4 o'clock in the afternoon the powders were repeated for four doses. At 7 o'clock the temperature was 100.2°; pulse 110. At 10 o'clock the temperature was 99°; pulse 80.

25th. Patient passed a good night. Did not perspire much. Quite free from pain; bowels open. Still a slight murmur heard at apex. On being removed to the convalescent ward, he left the chair on which he was being wheeled, and ran to his bed. Appetite improving. Temperature 98.4°; pulse 84. Convalescence good.

Case 3. E. L., aged twenty-five, servant, had had two previous attacks of rheumatic fever. Ten days before admission she took cold. Her throat became sore and she took to her bed on February 9th, and on the 13th she was attacked with severe pains in the arms and legs, accompanied by extreme tenderness; the knee-joints also became swollen and red, while the tongue was thickly furred and dry, and he bowels constipated.

On admission, on the 15th, all the above symptoms were well marked. Temperature 101.6°: pulse 104. —At 10 P. M., temperature 102°; pulse 96. A Dover's powder and an alkaline mixture were given, and an alum gargle was used for the throat.

Feb. 16th. Patient did not sleep well, but perspired freely during the night: both legs and the left arm (especially at the wrist) painful, tender and swollen, throat not so sore. Temperature 100.7°; pulse 100.—1.45 P. M.: Salicylic acid ordered in twenty-grain doses every hour for six hours, and an alkaline spray to throat.—2.45: Temperature 101.-6°; pulse 100.—4-40: Temperature 100°; pulse 92.—6.20: Temperature 100°; pulse 90.—7.40: Temperature 100.2°; pulse 96.—10.30: Patient in very little pain; throat easier since the use of spray. Inclined to sleep.

17th. Patient slept well and perspired freely in the night; pain had left all parts except the wrist, but the limbs still felt stiff. Temperature 100°; pulse 96.

18th. Throat quite well; tongue cleaning; patient stated that she has no pain whatever; had a good night's sleep; bowels not open. Temperature 99.4°; pulse 88.

19th. Patient slept well; no pain or stiffness; less perspiration; appetite improving; urine normal, sp. gr. 1030. Castor oil ordered on account of the confined state of the bowels. Temperature 99.2°; pulse 84.

22d. Patient has continued free from pain since the 19th, but the temperature was not quite normal until this morning. Temperature 98.4°: pulse 80.

23d. Patient not quite so well: complained of a severe headache, and also of feeling sick. Bowels constipated. Temperature 99.6°: pulse 100. Citrate of iron and quinine ordered to be given three times a day.

27th. Some improvement till the afternoon of the 26th, when a decided relapse took place, with pain, swelling, and redness of the wrist. Tongue thickly coated and dry. Temperature 101.4°; pulse 98. Salicylic acid was repeated in twenty-grain doses every hour for six hours.

28th. Much better. Pain in wrist quite gone; perspired well after powders. Temperature 99.8°; pulse 90.

March 1. Patient not quite so well again. Complained of some pain in the left wrist, which appeared somewhat swollen, and was painful to the touch. Temperature 99.8° pulse 94. Appetite very poor. The salicylic acid was repeated in the evening in the same doses as before, but only for three hours. The patient slept well, and next morning she was quite free from pain. Bowels open; appetite not so good. Temperature 98.4°; pulse 84. Patient continued to improve, and left hospital quite well on the 10th.

Case 4. J. C., aged nineteen, general servant, fell ill about a month before admission, with some pain in the shoulder and right elbow. When admitted on Feb. 28th she was suffering from well-marked symptoms of rheumatic fever. The right arm was painful, and the wrist greatly swollen, red, and very tender. There was also some tenderness in lower extremities. The tongue was dry and furred. Temperature 102.8°; pulse 108; respiration 28. A loud friction-sound, intensified by pressure of the stethoscope, was audible. Six powders of salicylic acid, twenty grains each, ordered to be taken, one every hour. After the first powder the pain became much easier, but the temperature remained the same.—9 P. M.: Temperature 102.8°; pulse 110. —10.30: Temperature 102.4°; pulse 108.—11.45: Temperature 101.8°; pulse 112.

Feb. 29. Had a good night; perspired freely; was in very little pain; appetite improving. Continue broth diet. 8 A. M.: Temperature 99.8°; pulse 96.—8 P. M.: Temperature 100.8°; pulse 104.—10 P. M.: Temperature 101.8°; pulse 108. Powders repeated for three hours.—11 P. M.: Temperature 100.2°; pulse 98.—12.10 A. M.: Temperature 98.6°; pulse 92.

March. 1. Patient had slept soundly, and felt better; was in no pain, but there was some stiffness about the joints. Temperature 98.8°; pulse 96.—5 P. M.: A slight return of pain in wrist, so that the powders were repeated for four hours. Temperature 98.8°; pulse 84.

2d. Had a good night's rest, and was quite free from pain. There was a soft mitral systolic murmur heard at apex; skin moist; tongue clean; bowels open; appetite improving. Temperature 98.4°; pulse 68.

8th. Convalescence went on well, patient feeling stronger daily. Was discharged a few days afterwards, temperature having been normal for over a week.

Remarks by Dr. Broadbent.—The cases reported speak for themselves, but it may be stated that they were all well marked examples of acute rheumatism, and that two of them were of more than average severity. The results of the treatment of rheumatic fever by salicylic acid in the practice of Stricker, of Berlin, were so remarkable that the earliest opportunity was taken of bringing the drug to the test of experience. The mode of administration recommended by Stricker is that twenty to thirty grains be given every hour for six doses, but at the first trial at St. Mary's only seven grains and a half were given at each of the six hours, simply suspended in water. No bad effects being observed, the dose was increased. It was impossible not to be astonished with the effects, and notwithstanding the many disillusions experienced in medicine brings, not a few of which have been furnished by acute

rheumatism, I should not do justice to my conviction were I not to say that apparently we have in salicylic acid, as Dr. Maclagan has said in his communication, a remedy for rheumatic fever comparable to quinine as a remedy for ague. According to present experience rheumatic fever when treated by this drug is an affair of two or three days. The disease is common enough, and its usual course sufficiently well known, so that no long time will be required to establish some definite conclusion, and to bring out any possible injurious effects. The only complaint hitherto made of the acid is that it is hot and irritating to the throat; given in milk, vomiting has been produced.

Careful examination of the effects on the pulse, temperature, urine, etc., will no doubt yield important information. Mr. Sworder, who has watched the cases very closely, states that the temperature invariably rises for a short time after the administration of the first dose, but the observations recorded in the careful notes taken at short intervals by him and Mr. Gawith show a gradual fall both of temperature and pulse rate. No sphygmographic observations were made. Relief from pain was always quickly obtained, and, as a rule, the patients slept well, no opiate being required; as a rule, again, there was very free perspiration, but this of course is common in acute rheumatism.—*Lancet*, April 8, 1876.

TREATMENT OF SUNSTROKE.

Sir Joseph Fayrer, Practitioner, March, 1876, thus clearly and briefly presents the treatment of sunstroke: In cases of simple exhaustion ordinary treatment is all that is needed. Removal to a cooler locality, the cold douche (but not too much prolonged), or the administration of stimulants may be beneficial. Tight or oppressive clothing should be removed, and the patient treated as in syncope from other causes. Rest and freedom from exposure to over-exertion, fatigue, or great heat, should be enjoined.

In that form of sunstroke where the patient is struck down suddenly by a hot sun, the patient should be removed into the shade, and the douche of cold water being allowed to fall in a stream on the head and body, from a pump (or as in India from the mussuck, or other similar contrivance) should be freely resorted to, the object being twofold: to reduce the temperature of the overheated centers, and to rouse them into action. During the assault on the White House picket in the last Burmese war, numbers of men were struck down by the direct action of the sun during the month of April. They were laid out perfectly unconcious in their red coats and stocks—they wore them in those days, 1852—but were recovered by the cold douche freely applied by the mussuck over the head and body. In some cases rousing by flagellation with the sweeper's broom was added, and all recovered with the exception of two cases, both of which had been bled on the spot where they fell. Mustard plasters and purgative enemata may be useful.

If recovery is imperfect and followed by any indication of injury to the nerve-centers, or by the supervention of miningitis, other treatment may be necessary according to the indications. Much exposure to the sun should be carefully guarded against, and unless recovery be complete and rapid, the sufferer should be removed to a cooler climate, the most perfect rest and tranquility of mind and body enjoined, and the greatest care be observed in regard to extreme moderation in the use of stimulants

In the cases of thermic fever, heat being the essential cause of the disease, the object is to reduce the temperature of the body as quickly as possible, and before tissue changes have resulted from the action of heat. As the hyperpyraxia is due not only to the direct operation of heat on the nerve-centers and tissues, but to the fever set up by the disordered vaso-motor arrangements, remedies such as may influence this disturbed condition have been suggested. The results have appeared in some cases to justify the theory; and the hypodermic injection of morphia and of quinine have both been considered to produce good results by their influence on the vaso-motor nerves and their power in retarding tissue change.

Bleeding has now happily been almost abandoned; the congested livid surface, the coma and stertor which formerly suggested it, are not now so treated. Bleeding has, no doubt, great power in reducing temperature, and there are cases in which it may still be practiced with advantage; but they are, I think, the exception and not the rule. In cases where venesection has appeared first to give relief and mitigate the symptoms, the improvement has been often transient and followed by relapse into a more dangerous condition, which has terminated fatally.

I could lay down no absolute rule in this or other diseases with reference to the abstraction of blood; and it is quite possible that greater immediate danger to life may exist in an over-distended right side of the heart than in the loss of an amount of blood that might have tited the patient over that state of peril; and therefore I would suggest that each case in this respect be treated according to its own peculiar merits. The treatment generally consists in the judicious applications of cold, either by affusion or by the application of ice to the surface, the reduction of temperature being watched with a thermometer in the axilla, mouth, or rectum.

Care should be taken not to prolong the cold application too long, as danger arises from depressing the temperature below the normal standard. The bowels should be relieved, and blisters may be applied to the calvaria and neck, though I may say I have not much faith in their efficacy.

In the epileptiform convulsions that so frequently occur, the inhalation of chloroform or ether may be of benefit, but their administration must be carefully watched. The earliest and most severe symptoms having subsided, the febrile condition that follows is treated on ordinary principles—salines and aperients being given, but not to the extent of depressing the patient. The diet must be carefully

regulated, and of the blandest and most nourishing nature.

As improvement progresses, other symptoms may supervene indicative of intra-cranial mischief. Where the indications are those of meningitis, the iodide of potash and counter-irritants may be used with advantage. Removal to a cooler climate is essential: as a general rule, it is desirable that the sufferer should not, for a long period at least, return to a hot or tropical climate, and he should be guarded against all undue exposure to heat work, or mental anxiety of any kind. The sequelæ of sunstroke are frequently from such causes most distressing and render the patient a source of anxiety and suffering to himself and to his friends.

The less severe symptoms—those, probably, indicative of the slighter forms of meningitis, or of abnormal brain or nerve change—occasionally pass away after protracted residence in a cold climate, but they are not unfrequently also the cause not only of much suffering but of shortening of life. It is not possible, in a short notice, to describe all the conditions that may result; they point to permanently disturbed, if not structurally injured, cerebro-spinal centers, and the treatment required is as varied as the symptoms presented.

PUERPERAL ECLAMPSIA.

BY SAMUEL C. BUSEY, M.D., WASHINGTON, D.C.

(*Extract from the Address on Obstetrics, delivered before the American Medical Association, June 8, 1876. Published by permission of the Committee on Publication.*)

The pathology of puerperal eclampsia continues so involved by the confusion of conflicting opinions, that the student is more confounded than were the builders at the tower of Babel. But, notwithstanding this diversity and contrariety of opinion, there are a few facts which may be profitably studied in connection with recent discoveries.

1st. About ninety per cent. of the cases of puerperal eclampsia* are associated with albuminuria. †

2d. Much the larger number of the autopsies of women dying of puerperal convulsions exhibit renal lesion; and Bright's diseases in women are most frequent among the child-bearing and during the child-bearing period. Hence the corollary is inevitable, that pregnancy stands in the relation of cause.

To this, however, there is an apparent contradiction, in that primiparæ and plural pregnancies are more liable to convulsions than multiparæ, whereas, by parity of reasoning, the reverse result should obtain.

The excess of liability in primiparæ and plural pregnancies, and the additional fact that depletion of the gravid womb is the most certain method of terminating the convulsive seizures, have given undue prominence to the mechanical theory of causation,—obstructive hyperæmia of the kidneys. I acknowledge the force of this hypothesis, but cannot accept its absolute verity. That a kidney engorged either with arterial or venous blood should supply a diminished quantity of urine, and that that should be stained with blood and contain albumen, either or both, is not remarkable, nor is it extraordinary that such a condition should result in the establishment of permanent lesions, similar to if not identical with the ordinary post-mortem appearance of the kidneys found in cases of Bright's disease. But it is the presence of the gravid womb, not of every abdominal tumor, * which is so frequently associated with albuminuria. Nor is this phenomonen incident only to the period of greatest mechanical disturbance, but to the condition of gravidity; and oftentimes it is present long anterior to the commencement of convulsions or to the completion of the term. It is but a symptom, denoting, it may be, "change in the blood-pressure" (Wagner) either in the renal vessels or in those of the whole body, or alterations in the parenchyma or substance of the kidney, or, more probably, alterations of the blood. If, then, interruption of the blood-current through the emulgent veins be a factor, it must, like many of the accidental phenomena of utero-gestation, be classed as an adjuvant,—the culminating event,— and as such offers an explanation of the greater frequency of convulsions among the primiparæ, because of the greater tension and rigidity of the abdominal walls, and the unaltered relations of the angle of pelvic inclination. Pregnancy, not the period of utero-gestation, is the essential factor. The cause, then, must lie in the altered relations, not of the parts which lie in anatomical contiguity, but of the functions of the animal economy.

During pregnancy the mass of blood is augmented, its constituent fibrin is increased, the albumen is diminished, the number of red blood-corpuscles is reduced (most markedly so during the later months), its temperature is elevated, the proportion of solids lessens, and the quantity of water increases with the progress of gestation, the normal relation which exists between the fibrin and water becomes disturbed, there is hypertrophy of the left ventricles the heart becomes stronger, arterial tension (especially in the primiparæ) is increased, and during labor the blood-pressure (Fritsch), both arterial and venous, rises, while a uterine contraction is present. Thus, conditions favoring fibrin-separation and congestions are present to a remarkable degree, and various viscera—brain, heart, lungs, and kidneys—may be temporarily congested. There are also added and retained effete products, and consequent

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* In 50,928 deliveries reported by Clarke, Collins, C. Johnson, Skeleton, and George Johnson, there were 138 cases of convulsions, of which 109 were primiparæ,—seventy-nine per cent.

† Nat. Med. Jour., vol. ii., p. 1, et seq.; also, Obst. Jour. Great Britain and Ireland, vol. ii., p. 254.

* Albuminuria frequently results from impediment to the evacuation of the bladder, occasioned by pressure of fibroid or other tumors upon the ureters." Hue has observed such cases. Amer. Jour. Obst., vol. ix., p. 159.

increased strain upon the kidneys. In the primiparæ the vascular apparatus (Harcourt Barnes *) is not adapted, and in many pregnant women the assimilation of nutriment is inadequate to the added physiological work, and the tension of the cerebral vessels, which increases with the progress of gestation, attains its maximum (Madden †) during parturition, when convulsions most frequently occur. There is, in addition, an increase of nerve-force, irritation of the pneumogastric, and a nervous sensitiveness especially characteristic of pregnancy.

The evacuation of the gravid uterus is followed by engorgement of the abdominal veins, which had been more or less obstructed by the pressure of the enlarged organ. This abstraction of the blood from the thoracic organs and from the brain, harmless as it is in most cases of parturition, and salutary as it proves to be in a majority of cases of convulsions, may result in such a condition of cerebral anæmia, enfeebled and irregular cardiac action, and imperfect decarbonization of the blood, as to become, in conjunction with the deteriorated condition of the blood mass, the immediate and exciting cause of post-partum convulsions.

The condition of the blood during pregnancy is aggravated by the loss of albumen, simulates anæmia, yet the condition of the system is that of physiological plethora, due to the increment of the blood-mass. During pregnancy and during labor the brain may contain a redundancy of this impoverished and deteriorated fluid, and yet be insufficiently nourished. The sudden engorgement of the abdominal veins after delivery may withdraw from the cranial cavity the requisite amount of fluid. In both instances the brain is anæmic, in one case containing an excess, in the other a deficiency, of the altered and toxæmic blood.

To these physiological departures from a condition of health, due to the pregnant state and taking place coincidently in the blood, the vascular apparatus, and the nervous centres, most rapid in their progressive development and manifest in their effects upon the animal economy during the period when puerperal convulsions usually occur, and to the consecutive and consequent morbid changes, we must look for the predisposing and proximate causes of puerperal eclampsia. It is not, however, my purpose at present to seek a determining cause, but to associate these conditions with other facts which have but recently come to our knowledge.

The physiological phenomena which favor cerebral congestion lend force to the once very commonly accepted theory that puerperal convulsions were occasioned by a determination of blood to the head This view derives important corroboration from the anatomical resemblance of the arterial circulation ‡ in women and in the cow, * to which parturient apoplexy and convulsions are mainly confined. The points of resemblance, as indicated by Prof. Walley, are in connection with the distribution of the internal carotid and the formation of the basilar artery and the circle of Willis, which favor a larger and more direct supply of blood to the brain, especially to the centres from which emanate the convulsive actions in puerperal eclampsia. If these researches should be confirmed by future investigations, we have present, during pregnancy, a peculiar condition of the blood, increased arterial tension, augmented blood-pressure, and an anatomical arrangement of the brain vascular apparatus, which favor inter-cranial congestion. To these may be added toxæmia, from destruction of the red blood-corpuscles, and retained effete products from renal congestion; malnutrition, from the loss and consumption of albumen, and from an inadequate supply of nutriment; deficient consumption of oxygen, from diminution of muscular action; and the various incidental nervous phenomena which so frequently complicate the period of utero-gestation. All these, acting together in the turbulent union of untoward events, culminate in convulsions.

But perhaps the most important contribution recently made to the study of the nature of puerperal eclampsia consists in the recognition of the febrile phenomena so uniformly associated with the convulsive seizures.

Quineke was the first to observe the elevation of temperature in puerperal eclampsia; † but to Bourneville ‡ we are indebted for the first series of systematic observations. From carefully recorded thermometric observations in seventeen cases, including four fatal cases, he deduces the following conclusions: §

"1st. During the eclampsic state the temperature is raised from the onset of the attack to its termination.

"2d. In the intervals of the attacks the temperature remains elevated, and at the moment of the convulsion a slight accession takes place.

"3d. If the eclampsic condition is about to terminate in death, the temperature continues to augment, and reaches a very elevated figure; if, on

*Amer Jour. Obst., vol. viii., p. 719.

† Obst Jour. Great Britain and Ireland, vol. ii. p., 239.

‡ The human brain derives its arterial supply through the internal carotid, vertebral, and ophthalmic arteries. The circulation is equalized by the circle of Willis, which is formed by the anastomosis of the branches of the internal carotid and vertebral arteries. The basilar artery is formed by the junction of the vertebral arteries.

* In the horse the vertebrals do not enter into the formation of the brain-circulation. In the pig and dog the basilar artery is formed by the cerebro-spinal branches of the occipital, as in the horse. In the sheep the vertebral, after anastomosing with the occipital, sends branches which gain access to the cranium and contribute to the formation of the basilar, and a large plexus which lies underneath the medulla. The difference of the circulation in the ox and sheep is, that in the ox each vertebral, after anastomosing with its fellow, proceeds forward and connects through the posterior plexus with the occipital, while in the sheep the vertebrals pass into the spinal canal, inosculate, proceed forward as a single artery, again bifurcate, and anastomose with the occipitals. Tralley, Obst. Jour. Great Britain and Ireland, vol. ii. p. 376.

† Quineke. Berlin. Wochenschrift, 1869, No. 29.

‡ Arch de Toxicologie, Des Mal. des fem. et desEnf., April, 1875, Paris.

§ I have had the opportunity of confirming these observations in two cases, the convulsions occurring in one at the sixth month, and in the other at "full term."

the contrary, the attacks diminish and the coma ceases in a definite manner, the temperature lowers progressively and returns to the normal standard."

In June, 1875, M. Diendé* published four new observations, two of which confirmed the opinions of Bourneville, while the others invalidated in part the proposition that the temperature was elevated in eclampsia, and incidentally invalidated the proposition that in the intervals it was maintained at a high degree, and slightly elevated at the time of the convulsion. In December last Herbart † published three additional cases; a single observation has been made by Richardson, ‡ and two by myself, making in all twenty-seven cases. With the exception of the two cases before referred to, the observations confirm the conclusions deduced by Bourneville. Of these twenty-five cases, seven died. A single death occurred with a temperature as low as 102.4°; in the other six cases the highest elevations ranged from 104° to 109.5°. Among the recoveries the temperature rose in one case to 105.8°, and in another to 106°. Therefore the maximum of safety cannot be established; but in all the fatal cases the temperature remained elevated, and in every case of recovery it lessened. No death occurred with a temperature below 102.4°, and no recovery took place with a temperature above 106°. The thermometric cause was not uniform, because of the alterations produced by the effect of therapeutic agents.

These results present important indications in regard to the treatment and prognosis in cases of puerperal eclampsia. The value of remedies may be determined by the modifications of the temperature, and their inutility may be established by its progressive elevation. The fever, be it a factor of causation or a coincident phenomenon of the convulsive environment, is manifestly the element of danger. This inference is corroborated by the varying success of the different therapeutic agents which have from time to time been employed in the treatment, and which owe their efficacy to their antipyretic qualities, or rather to their power to abstract body-heat. Venesection, which at one time was regarded as the "sheet-anchor" of hope, and even now has many advocates, not only diminishes the mass of blood, lessens arterial tension, and relieves blood pressure, but also produces rapid falling of the temperature, in the well as in the sick.

This effect may be transitory, and speedily followed by increased arterial tension and an elevation of temperature, but the fever-course of eclampsia exhibits marked depression after the abstraction of blood. In Richardson's case the temperature fell from 103° to 102° after venesection, but, the tenseness of the jugular veins and unconsciousness continuing, a second abstraction of blood, with the application of an iced collar to the neck, established convalescence. In Herbart's case the abstraction of twenty ounces of blood was followed by an immediate fall of 1°, and in the five succeeding hours of 35°. The illustrations might be multiplied; and even in the fatal cases venesection, when employed, either stayed for a time the progressive elevation, or depressed the temperature to rise again.

Chloroform-narcosis lowers body-heat by diminishing the rapidity (Billroth) of metamorphosis, thus lessening the production of heat. Chloral hydrate lessens heart-action and lowers temperature. In the fever of eclampsia the effect of both of these agents is marked by the descent of the curve. Veratrum viride, so highly extolled by Hearn,* depreses the temperature, slows the heart, lessens arterial tension, and diminishes the blood-pressure.†. Digitalis diminishes the activity of heat production. Aconite depresses the body-heat by its paralyzant action on the heart and organs of circulation (Bartholow.‡ Cold affusions, purgation, and nauseants lessen body-heat. In brief, the successful methods of treatment of puerperal convulsions illustrate the "principle of physiological antagonism" of therapeutic agents to the febrile state. I may add, the evaculation of the gravid womb, inits physiological influence, diminishes the temperature. Nature indicates her resource in expediting the depletion of the uterus in very many cases of puerperal eclampsia, and it is a fact that in a majority of cases the convulsions cease or diminish in frequency and intensity, with a marked reduction of the temperature, immediately upon the completion of delivery.

I will advance a step further, and submit the proposition that the various methods of preventive treatment owe their efficacy to their effects upon the blood-mass and blood-vascular apparatus. As a rule, these are directed to the promotion of digestion, whereby the loss of albumen is replenished, and to the diminution of the hydræmia, by catharsis, diuresis, or diaphoresis. Heretofore the explanation of these excretory operations has rested mainly upon the theory of eliminating the excrementitial and toxic elements accumulated in the blood. Not less important are the simultaneous effects in lessening the mass of blood and restoring the relation of its constituents. The phenomena and consequences of loss of albumen, says Wagner, are disturbance of the endosmosis and exosmosis, insufficient formation of digestive fluids, altered nutrition and repair of tissues, and, especially, often albuminuria.—*Philadelphia Medical Times.*

* Inaugural Thesis.
† Inaugural Thesis.
‡ Obst. Jour. Great Britain and Ireland, vol. ii. p. 675.

THE NORMAL DIGESTION OF INFANTS.

An essay by Dr. WEGSCHEIDER of Berlin (*Centralblatt f. d. Med. Wissenschaft*, No. 3, 1876), based on the microscopical and chemical examination of the feces of number of healthy infants between two and three months old, whose diet consisted entirely of breast-milk, reveals some interesting facts with

*Amer. Jour. Obst., vol. iv. p. 28.
† Bartholow, Amer. Clin. Lect., Seguin, vol. ii. p. 17.
‡ Whence it follows that the consumption of oxygen and the chemical interchanges between the blood and the tissues are diminished.

regard to the various changes which go on in the digestive tract at that early period of life. The feces were simply scraped from the napkins, and then preserved, without the addition of water, in well-stoppered bottles.

The colour of the motions of healthy infants varies between that of yolk of an egg and greenish-yellow; their reaction is always acid. Their consistence is very variable, and ranges from an almost completely dry to a thin liquid character. Their smell is never offensive, but resembles that of sour milk. The feces always contain whitish fibrinous-looking flakes which are proved to consist of fat, with probably some intestinal epithelium. The fat consists of palmitin, stearin, and olein. Besides fat, the feces appear to contain traces of peptones. Sugar was not found in any appreciable quantity.

The remains of the secretions of the digestive tract are found in the feces in considerable quantity. Mucin is present in variable amount, and its presence can be chemically proved by the precipitate, insoluble in excess, which acetic acid produces in an aqueous solution. Bile-pigment exists, both free and also in combination with bases. Cholcic acid can be detected in a free state in a solution made by extracting the feces with alcohol. Cholesterin occurs in considerable quantity, but Dr. Wegscheider does not consider that it is entirely derived from the constituents of the bile. With regard to those bodies which are the products of transformation of the food and of the digestive secretions, neither leucin nor tyrosin can be chemically detected in the feces. On the other hand large quantities of saponified fats, in combination with lime and magnesia are present, and are thus wasted for nutritive purposes. In a watery extract of the feces Dr. Wegscheider found traces of diastatic and pancreatic ferments, but no pepsine. In consequence of the difficulty of keeping the feces free from admixture with urine, he did not examine them for urea.

The most important conclusions which Dr. Wegscheider draws from researches on the feces of infants, in relation to their digestive functions are the following: 1. The albuminous constituents of the milk are completely absorbed; 2. The white residue which is found in the feces and is usually regarded as casein, is not casein, but chiefly fat with some admixture of intestinal epithelium; 3. The unabsorbed fats leave the bowel partly as soaps, partly as free fatty acids, and perhaps partly as unaltered fat; 4. Urobilin and unaltered bilirubin occur on the feces, and biliverdin is also found in diarrhœal stools.—*Obstetrical Journal of Great Britain*, May, 1876.

DEATH FROM OLD AGE.

Dr. Reginald Southey, in one of his London lectures on "Individual Hygiene," has the following remarks upon death from old age:—

There is a death, no doubt, by natural old age—a death perfectly simple and sudden, which carries off old people usually at night and in cold weather; thus removing, perhaps in sleep, persons who had gone to bed apparently as well as usual. No single lesion may be found to explain this death, although no organ of the body but has undergone the pathology of blocking up and wearing out. The individual eventually dies then because his heart ceases to beat. But King Death thus stepping in as a thief in the night is a very rare event. Old persons die more often after due care at the hands of their medical advisers by natural pathological processes. There is death approached by the bladder road under the ablest surgical charioteering: enlarged prostate, thickened bladder, retained urine, catheterism cystitis, catarrhal nephritis, typhoid, uræmic symptoms. There is death approached by the narrowed pathway of the degenerate and obstructed arteries, by paralysis, by apoplexy, by peripheral embolism, by senile gangrene. Lastly, and in my own experience most frequently, death is approached by diarrhœa in summer, and broncho-pneumonia in winter; in either case the final illness is short enough—a few days or a week at most. This bronchopneumonia of advanced years is clinically very important for you to recognize. When some old person eighty and upwards, the habitual subject of bronchial catarrh, says to his ordinary attendant one morning that he is tired and will lie in bed, a thing he has never done before, take heed, if his cheek is flushed, his eye a little brighter than usual, and his inclination to talk and tell you tales of his childhood greater than usual—beware, towards night-time he will "babble o' green fields," talk of those long since dead as if they were living and ought to come home, just wander in his mind a little, but be easily roused to think and answer correctly. Watch him carefully; he is near that haven where he would be, where he shortly will be, for his tongue is dry, and he has an eager thirst, and he is drowsy but sleeps little, and awake but not all, and he has short, quick breathing, and little fits of coughing, but not his old, long, suffocating cough; and he expectorates but little, and that little with difficulty: the end is not far off, and you had better inform his relations that you recognize the danger.

HEADACHE FROM EYE-STRAIN.

Dr. Weir Mitchell in the *American Journal of the Medical Sciences*, observes that few but ophthalmic surgeons are aware of the need of interrogating the eye for answers to some of the hard questions which are put to us by certain head-symptoms; and he wishes to impress upon the profession—(1) That there are many headaches which are due indirectly to disorders of the refractive or accommodative apparatus of the eyes. (2) That in these instances the brain symptom is often the most, and sometimes the sole, prominent symptom of the eye trouble, so that while there may be no pain or sense of fatigue in the eye, the strain with which it is used may be interpreted solely by occipital or frontal headache. (3) That the long continuance of eye-trouble may be the unsuspected source of insomnia, vertigo,

ausea, and general failure of health. (4) That in many cases the eye trouble becomes suddenly mischievous, owing to some failure of the general ealth, or to increased sensitiveness of the brain from noral or mental causes. Several illustrative cases re given.

RARE CASE OF GALL STONES DISCHARGED THROUGH THE SIDE.

By Daniel Parley, M.D.—The patient, Matthew Plumsted, harness maker, was born in Norwich, England, A. D. 1800, went to Canada in 1812, came to the States in 1818, and to Lynn in 1835. He had been subject at times to severe pain in the region of the liver for some years, when in the latter part of the year 1869, an abscess formed in the right hypochondrium, attended with great disturbance of the system.

The symptoms were so alarming that in consultation with my friend the late Dr. B. B. Breed, we decided to make an opening without waiting for any thinning of the integuments. There was an immediate discharge of pus, yellow bile, and small black specks which were easily rubbed up and became of a bright yellow color. He was somewhat relieved, and continued to improve with the discharge of similar matter, with now and then a clogging up of the aperture, till in about a month gall stones of various sizes up to that of a cranberry began to issue and continued with volcanic irregularity of rest and activity till December 28, 1873. There has been no eruption since. He is now robust and able to attend to his business in better health than for many years. In a hasty examination of the journals of the last forty years I have been able to find but two cases of the kind.—*Boston Med. and Surg. Journal*, June 22, 1876.

DIFFERENCE BETWEEN MEASLES AND SMALL-POX.

In a paper on Variola, read before the Newport and Covington (Kentucky) Medical Society, and published in the *Medical and Surgical Reporter*, Dr. B. F. Laird says—

Measles is the disease with which variola is most frequently confounded, and there is even an idea that there may be a combination of these two diseases. The points of difference between the two are about as follows; in measles we find, in the early stages, catarrh of the bronchi, conjunctiva and nose, a condition which only comes on in a later stage of variola. The appearance of the skin during the stage of eruption may, taken by itself, give rise to doubt.

We may lay down the rule that, in measles, the maculæ are, from the beginning, larger than those of variola and they are developed almost simultaneously on the back and face, while in variola they begin on the head and descend step by step downward to the back. But this rule is only of value in the regularly developed cases. Much more important is the degree of fever shown by the thermometer. In variola, during the initial stage, the temperature ordinarily rises to 104.9°–105.8°, while in measles, during the corresponding period, it seldom exceeds 102°, at the highest 104. It is also characteristic of variola that soon after the eruption appears the temperature falls while in measles it continues the same, or even rises. This peculiarity distinguishes variola from the other exanthematous fevers, and especially scarlet fever.

In this latter disease, the early appearance of sore throat helps in the diagnosis. In purpura variolosa however the intense red color covering the back before the hemorrhages appear, may closely resemble scarlatina; and even after the hemorrhages appear, it may be doubtful if the case is not an example of hemorrhagic scarlet fever. And the case may be still further obscured by the uncertain character of the temperature in purpura variolosa.

The diagnosis between exanthematous typhus and variola is, in their early stages, sometimes very difficult. The fever serves as no guide, there being the same rapid increase of temperature in both diseases. When the eruption appears the temperature falls; in typhus it does not. In typhoid fever mistakes are seldom, as the rise in temperature is regular and characteristic. From ephemeral fever variola can be distinguished by its higher temperature.

WHOOPING-COUGH.

Dr. Octavius Sturges, Assistant Phys. to Hospital for Sick Children, Great Ormond St., London, presents (*Lancet*, May 20, 1876) the following summary of his views concerning pertussis:—

1. Whooping-cough is a nervous disease of immature life, due immediately, like nervous asthma, to a morbid exaltation of sensibility of the bronchial mucous membrance. Although possible in a modified form at all ages, it has its period of special liability and full development simultaneously with that time of life when the nervous system is irritable, and the mechanism of respiration diaphragmatic. A child of the proper age with catarrh and cough is thus on the very brink of whooping-cough. A large proportion of such children will develop the disease for themselves upon casual provocation, all contagion and all epidemic influence apart.

2. The whoop of whooping-cough is due to a spasmodic contraction of the diaphragm which follows its extreme relaxation with the emptying of the lungs by spasmodic cough, the force of the inrush of air being met by a conservative spasm on the part of the glottis.

3. The natural history and relations of whooping-cough—its uneven course, indeterminate duration, method of recovery and cure, frequent absence of pyrexia, and seasons of prevalence—are in striking contrast with diseases of the zymotic class. Admitting the fact of its contagion, the great commonness of the disease and its association with epidemic catarrh, coupled with the popular belief that its source of infection may be indefinitely remote, are circumstances which must combine to render whoop-

ing cough more contagious in appearance than it is in fact.

4. In its character as a purely nervous disease whooping-cough may very well be contagious like other nervous affections of quasi-voluntary kind. The assumption of a specific morbid poison is both hypothetical and gratuitous, or so nearly gratuitous that the facts it seems to explain are insufficient to counterbalance its inherent improbability.

5. The non-recurrence of whooping-cough is not, in strictness, analogous to the non-occurrence of contagious fevers, nor out of real harmony with the pattern of nervous disease. It is the rule that affections of this class alter their shape with the successive epochs of life, so that each will appear either solitary or recurrent, according as the time allotted for it is shorter or longer. The after-infancy period to which whooping-cough attaches is one of brief duration and special liabilities. The features of the disease are in strict correspondence with the characteristics of its time of life.

6. The specific remedies for whooping-cough (which have their season and may be said now to include all drugs whatever, of any potency) have all of them a certain testimony in their favour. They agree in a single point; whether by their nauseousness, the grievous method of their application, or the disturbance they bring to the child's habits and surroundings, the best vaunted remedies—emetics, sponging of the larynx, ill flavoured inhalation, change of scene, beating with the rod—all are calculated to *impress* the patient, and find their use accordingly.

MOVABLE AND DISPLACED KIDNEYS.

Dr. Wickham Legg, at a late meeting of the Pathological Society of London (*Med. Times and Gaz.*, May 20, 1876,) read a report from the committee appointed to enquire into the subject of movable and displaced kidneys. After dealing with the question of displacement without mobility, the report went on to discuss the causes of undue mobility of the kidney, which to some degree was by no means unfrequent. One of two conditions usually prevails; either the organ lies loose from attachment to peritoneum, so as to admit of being moved a certain extent in any direction; or else it is completely invested by peritoneum, which passes over it to form a meso-nephron of greater or less length. The report concluded by reference to a number of cases fully described, in which one or other of these conditions was discovered post-mortem. The report was signed by Drs. Hare, Bristowe, Wilks, John Williams, and Legg.

Dr. Wilks thought the result of investigation very satisfactory, especially on account of the careful post-mortem observations recorded in the report. He was the more anxious to state this opinion because he confessed to having formerly been sceptical as to the existence of movable kidney other than as a clinical observation. The cases in which it is usually found, clinically, were young hysterical females; and although he would like to have heard of cases in which observation during life was confirmed after death, yet the number of facts collected showed that such a condition as movable kidney could exist.

Dr. Hare pointed out that one or two of the cases related in the report were instances in which there was evidence of floating kidney during life, and in which the autopsy revealed the condition corresponding to this.

THE MANAGEMENT OF ALBUMINURIA.

In an article in the London *Medical Times and Gazette*, Dr. W. H. Dickenson, of London, writes:—

To give rest, as far as may be, to an inflamed structure, is an old and sound maxim; and it is not the less obvious, in regard to the system at large, that if a great channel of exit be obstructed, the materials which therefore tend to accumulate should be sparingly introduced. The diet with albuminuria, save that with lardaceous origin, in which the secreting power is until late little interfered with, while an exhausting discharge may have to be obviated, should be below the custom of health in its nitrogenous components. It may abound in milk and farinaceous matter, while fish may often take the place of flesh. The increas of albumen in the urine, upon a too early resort to a meat diet, is a common experience. With regard to liquids, it cannot be too strongly insisted upon that the functional strain upon the kidney is not to be measured by the quantity of water which filters through it, but by the quantity of refuse, mainly nitrogenous, which it has to convert and eliminate. Water, which probably transudes almost as through dead membranes, probably makes little demand upon the real secretive function. The worst kidneys, indeed those most hopelessly incapable of their special work, will often discharge most of it; and it is easy to see that its passage, net to be regarded as the result of glandular effort, is salutary, both in the dilution of scanty and irritating urine, and also in washing out the solid products which, under the inflammatory process, collect mischievously in the tubes. A further use is to be discerned in this law. The solids of the urine vary with its water. With given kidneys, the solid excreta wax and wane with the bulk of the urine. Any means, therefore—mere aqueous filtration as safely as any—which increrse this will also magnify the components of the secretions which are essential to life. With tubal nephritis, therefore, and scanty urine, an aqueous dietary, even with the addition of distilled water, or the element in some slightly sophisticated shape, will prove in every sense beneficial. In many, perhaps in most, cases of nephritis of tubal origin these remedies of patriarchal simplicity, "spare diet and spring water clear," are all that are needed to guide the disorder to its natural cure. To this surest and safest of diuretics others must often be added, both to lessen dropsy and to avert the dangers of uræmia. The old rule is that, in recent cases, digitalis should be used; it seldom

fails to increase the flow of urine, but I am not sure that it does not sometimes do so with some exasperation of the inflammatory action. The bitartrate and acetate of potash, which have a purgative as well as a diuretic action, may probably be safely resorted to; and in chronic cases as much as may be done harmlessly by diuretics may be accomplished by means of scoparium, nitre, and juniper. Cantharides and the more irritating agents of this class are generally distinctly injurious. Perhaps, next to a regulation of the diet, it is most important to secure a daily and somewhat loose action of the bowels. Purgatives lessen the vascular tension, which, in both acute and chronic cases, is a measure of their danger; and while it is not advisable too largely to divert the urinary fluids by severe cathartics, increased hardness of the pulse, and other more obvious aggravations of the general state, seldom fail to ensue upon constipation. When cerebral uræmia is threatening, hard purging by elaterium or otherwise is essential. As a habitual laxative, a drug less used than it deserves to be—sulphate of potash—given two or three times a day in doses of from ten to twenty grains, is sometimes invaluable. It may be aided, if necessary, by Epsom salts or cream of tartar.

OATH OF PHARMACISTS.

We translate from the weekly journal of *Pharmacie* (1870, No. 50), the old French oath of pharmacists of 1336, curiositatis causa, and of illustration how much tempora mutantur:

Oath of the Christian and Godfearing Apothecaries:

First. I swear and promise before God to live and to die in the Christian religion.

Item. To honour, to esteem and to serve as much as I can, not only the doctors of medicine who instructed me in the knowledge of rules of pharmacie, but also my preceptors and masters with whom I learned my trade.

Item. Neither to put an affront upon one of my old doctors and magisters, or upon others, however they may be.

Item. To add as much as I can to the glory, honour and majesty of medicine.

Item. Not to give any emetic to an acute diseased person without before asking the advice of a doctor of medicine.

Item. Not to touch the pudenda of a woman, except in case of urgent necessity, id est, if there a remedy should have to be applied.

Item. Not to give poison to any one and never to advise anybody to do so, even not to my worst enemies.

Item. Never to give an abortive.

Item. To execute minutely the orders of phicisians without adding or omitting anything, as far as they are according to the rules of art.

Item. To contradict and to avoid like the pest the scandalous and the most destructive manner of practicing of charlatans, empiries and alchymists, the high disgrace of the magistrate who allow them.

At last. Not to keep poor and old drugs in my shop.

The benediction of the Lord be with me as long as I follow those vows. So be it!—*Deutsche Medic. Wochenschrift.*

MODERN PRESCRIPTIONS.

Considering the above oath, what would an apothecary of the olden times have done, getting prescriptions like the following, which we have been privileged to copy from the originals of recent graduates:

℞.—Extr. calabar, gr. iv.
Quin. sulph., gr. xxxvi.
Croton chloral hydrat., gr. L.
Extr. nuc. vomic., gr. iv.
Extr. belladonn., gr. viii.
Extr. cannabis indic., gr. viii.
Ferri sulph. exsicat., gr. xxv.
Pulv. capsici, gr. vi.
Extr. aloes, gr. xii.
Pulv. ipec., gr. iv.
S. in capsul. xii.
One three times a day.

℞.—Bismuthi subnitratis, ℈ ii.
Sodii santonie, gr. xxxvi.
T. rhei aquosa, ℥ ii.
Podophyll, gr. ii.
Ti. op. camph., ℥ iii.
Mixt. cretæ aromat., ℥ ii.
Pulv. hydrarg. c. creta., gr. iv.
Syr. Krameriæ, ℥ iii.
Olei. chenopodii, ℥ i.
Pulv. acaciæ, ℥ i.
M. One dessert sp f. 3 or 4 times a day.

New Remedies.

THE CANADA MEDICAL RECORD

A Monthly Journal of Medicine and Surgery.

EDITOR:

FRANCIS W. CAMPBELL, M.A., M.D. L.R.C.P., LOND.

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MONTREAL, SEPTEMBER, 1876.

TO OUR SUBSCRIBERS.

With this issue the Fourth Volume of the *Record* ends. We therefore enclose accounts to all who are indebted to us, and we earnestly beg that we may have a generous response.

Although our circulation during the past year has shown considerable of an increase over the preceding one, the receipts have been wofully deficient. We believe that in many cases it is simply neglect, but we hope that now we have fulfilled our part of the obligation, our Subscribers will remember what is due us, and send it to us promptly. We beg to assure them that *we actually need it.* MAY WE HOPE FOR A PROMPT REMITTANCE.

Cyclopædia of the Practice of Medicine. Edited by Dr. H. VON ZIEMSSEN, Professor of Clinical Medicine in Munich, Bavaria; Dr. Albert H. Buck, American editor. New York, William Wood & Co., 27 Great Jones street. *Published and issued to Subscribers only.*

Volume XI.—Diseases of the Peripheral Cerebro-Spinal Nerves, by Prof. Wilhelm Heinrich Erb, of Heidelberg, Baden; translated by Henry Power of London, England.

This volume of the Cyclopædia differs from others which have preceded it, and which have contained papers on stated subjects from different pens, in that the entire volume has been written by Dr. Erb. This physician, although young in years, having received his degree of Dr. of Medicine in 1862, has been an enthusiastic and very laborious worker in the special field of nervous diseases. He has not only kept thoroughly posted upon the great progress, which, during the past ten years, has been made in all departments of neuropathy, but, by his contributions, has materially contributed to the result. His qualifications for the task assigned him by Prof. Von Ziemssen is therefore undoubted, and although we have not been able to do more than glance over his work, we are satisfied that his labors have produced a very valuable contribution to the literature of nervous diseases. The volume opens with Neuroses of the Sensory Nerves. 1st.—Neuralgia in general. Its definition, etiology, pathological anatomy and symptomatology are given most minutely. Its course and duration, terminations, diagnosis, prognosis and treatment are then considered. The consideration of the treatment is divided under the usual heads of prophylaxis, casual indications, diet and mode of life, electricity, narcotics and anesthetics, specifics, cold, derivatives, baths, surgical means and general plan. He admits that there are objections to this arrangement, and adopts it on account of its synoptical value. As might be expected, electricity is highly spoken of, and although its mode of action is still obscure, Dr. Erb says he believes "it diminishes the excitability of the sensory nerves, it takes away abnormal stimuli from them, it modifies their nutrition, allays hyperæmia and inflammation, and lastly, acts as a derivative, and thus fulfils several indications." With regard to the kind of electricity, he says, "the galvanic current is found to be more active and applicable to a greater variety of forms of the disease than the faradic current." Hypodermic medication is of course highly spoken of, and a hint of some practical value is given, as follows: "The locality for injection is not altogether a matter of indifference. When the general action upon the central nervous system is desired, those parts of the skin may be selected which are thin, and where the subcutaneous connective tissue is loose, as, for example, the temple, clavicular region, anterior abdominal wall, and internal surface of the forearm and thigh. When a decided local action is intended the injection should be as near as possible to the nerve trunk affected." The employment of chloral is recommended in slight forms of the disease, and then not alone but in conjunction with morphia, viz., 15 grains of chloral and $\frac{1}{6}$ grain of morphia. Under the head of specific remedies, arsenic, iron, quinine and bromide of potash are highly spoken of. About one hundred pages are taken up in consideration of neuralgia, and it is a valuable and very readable paper. The neuralgia of individual nerves are then considered in the following order: 1. Neuralgia of the 5th nerve. 2. Cerebro-occipital neuralgia. 3. Neuralgia of the plexus brachialis. 4. Intercostal neuralgia, dorsal nerves. 5. Neuralgia of the plexus lumbalis. 6. Neuralgia of the plexus sacralis. 7. Neuralgia of the plexus coccygeus.

Neurosis of the nerves of special sense are next considered, and the latter portion of the volume is taken up with the various forms of paralysis, and anatomical disease of the peripheral nerves. The volume is an extremely valuable contribution to our literature on the subject of nervous diseases; valuable, in that it contains the result of much original research made by the author, and likewise valuable, as giving, in a well-written manner, a summary of all that is known upon this very interesting class of affections.

Volume IV.—This volume is devoted to the consideration of diseases of the respiratory organs, and consists of a series of papers written by Dr. Fraenkel, of Berlin; Prof. Von Ziemssen of Munich; Prof.

Steiner, of Prague; Dr. Riegel, of Cologne, and Dr. Fraentzel, of Berlin, all of which are of very considerable value, some, of course, more than others. The paper on diseases of the nose, pharynx and larynx, by Fraenkel is extremely interesting, and is written evidently by one who is a thorough master of the subject. Its style is clear and concise, and in a reasonably small space the various methods of examination in laryngoscopy—by concave mirrors, by lenses and by a combination of mirrors and lenses, as well as by diffused daylight and by sunlight—are admirably described. The various means of employing rhinoscopy are given in detail. A very considerable portion of this paper is taken up in giving the necessary details for the application of the various solutions and gases, which have been found serviceable in this class of affections. A very excellent, but somewhat short paper is the one from the pen of Prof. Steiner, on "croup." This is sure to be one of the first papers in this volume, which will be read by a large majority of subscribers. We have read it carefully, and have only one regret to make, and that is that the author has not more fully entered into the controversy which is at present being waged as to the identity of croup and diphtheria. He disposes of the question in a very few words, remarking "according to E. Wagner, * * * * there is *no sharp dividing line between diphtheria and croup*, an opinion in which I entirely agree." We can hardly consider this summary way of treating this question as a thoroughly satisfactory one. The other portions of the work embrace the various diseases of the trachea and bronchi; also the diseases of the pleura. Time has not enabled us to give to the papers on these subjects that close scrutiny which we would have desired, as they are very elaborate and occupy more than five hundred pages. We, however, have examined them sufficiently to say we believe they are all really very excellent treatises, and that profit can be derived from their perusal. This volume of the Cyclopedia is extremely valuable, as treating of a class of affections which are constantly brought to the attention of the general practitioner.

Volume V.—This volume also includes diseases of the Respiratory organs, and the papers are written by different authors. The first is from the pen of Professor Juergensen of Tubingen, on Croupous Pneumonia, Catarrhal Pneumonia, Hypostatic Processes in the lungs, Embolic Pneumonia, and embraces fully two hundred and fifty pages. The various subjects are treated in a comprehensive manner, and we only say what is correct when we characterise the papers as exhaustive, and, therefore, a valuable contribution to our literature on the subject. As might be anticipated, the treatment of both croupous and catarrhal pneumonia, by means of the cold bath is warmly advocated. He first tried the experiment on the person of his child, and with such marked success that he has repeated it frequently since, with equal success. He now recommends it as a portion of a regular plan of treatment. The directions for its employment are given with much minuteness, but, for details, we must advise a reference to the work itself—contenting ourselves by saying that he recommends the giving of stimulants before the patient enters the bath, sometimes when he is in it, and after he leaves it. In Catarrhal Pneumonia, in addition to the bath, cold effusions are strongly advised, with a view of expanding the lungs. This is performed by pouring over the patient, so as to shower the neck, back and breast, from ten to twenty quarts of water, reduced to a few degrees above freezing point. Such a method of treatment seems harsh, but recommended by such an authority, and with such beneficial results assured, we cannot fail to accept it as a plan of treatment worthy of trial. From page 264 to page 629 is occupied by a series of very excellent papers from Prof. Hertz, of Amsterdam, on Hyperæmia, Anæmia, Hæmorrhages, Atelectasis, Collapse, Atrophy, Emphysema, Hypertrophy, Gangrene, New Formations and Parasites. From page 629 to page 691 is taken up by Prof. Rindfleisch, on Chronic and Acute Tuberculosis; all these papers are really very excellent contributions to our medical literature, and we doubt not will find many admirers. We, however, fear that the terrible refinements in diagnosis which abound in almost every paper in this volume, and indeed in every volume of the Cyclopedia which has been issued, will, among the mass of practitioners, not meet with a very cordial reception. We have, however, previously expressed our opinion as to the very great value of this work, and we repeat it again. It may be many years before such a comprehensive work, from so many able pens, will again appear. Every medical man, therefore, who can possibly afford the outlay, should subscribe to this Cyclopedia, which, from the elegant manner in which it is being produced, is a beautiful addition to any library and will for years to come be a standard volume of reference.

CANADIAN MEDICAL ASSOCIATION.

The ninth annual meeting of the Canadian Medical Association took place in Toronto on the 2nd August, and was very respectably attended, although the number present was not quite as large as had been anticipated.

Dr. Hodder of Toronto, the President of the Association, occupied the Chair, and delivered the following address:—

THE PRESIDENT'S ADDRESS.

Dr. Hodder, as President of the Association, delivered his address. He congratulated the members on the interest they took in the Society as was evinced by the large attendance, and took this opportunity of offering a hearty welcome, on behalf of the medical men of Toronto, to the delegates from the United States, and invited them to join in all the discussions and debates, and to consider themselves in every particular as members of the Association. He alluded to the success that had attended the formation of medical societies, and the gatherings of medical men for scientific purposes in other countries, and thought the results ought to stimulate the profession of the Dominion to meet in large numbers at the meetings of the Association. His remarks on this subject were so pertinent that we give them more *in extenso*:

"When we consider the vast amount of practice and observation which is daily and hourly going on, not only in the larger cities but in the surrounding districts of the Dominion, we cannot but feel with regret that an enormous fund of valuable information and experience is and has been allowed to run almost entirely to waste for a long succession of years. By joining such an Association as that which I have the honor to preside over this day, the numerous body of our professional brethren extensively engaged as general practitioners, who spend long and active lives in the practice of their profession, would undoubtedly be able to contribute inexhaustible stores of medical experience of the highest interest and value, and which, but for such a society, would remain uncommunicated, and therefore lost to the profession. The local medical societies do some good, but the results of their meetings are rarely published, and therefore many valuable cases never meet the eyes of the profession generally, and are thereby lost to the world. There is, however, one point of very considerable moment to which I beg to draw the attention of the younger members of the profession:—Many young practitioners are deterred from publishing or bringing before an association or society cases of interest which occurred in their practice, from an erronous supposition on their part that it is necessary to work them up into the form of an elaborate essay. In nothing are they more deceived; the plain and truthful narrative of a single fact is of infinitely more value than a thousand theories. Wisely, then, did this Association when they met last year at Halifax limit the time for the reading of papers, by which, I trust, many members will be induced to send in communications which otherwise they might not feel disposed to do. It is only therefore in an Association such as this that the accumulated experience of a large body of the medical profession in this Dominion can be properly collected and concentrated, so as to turn such inestimable stores of knowledge to good account, and render them available and useful to the profession at large. When we glance over the medical literature of former years, not only of Great Britain and the Continent but of the United States—what, I would ask, are the works which have stood the test of time, and which among the numerous changes produced by improving and increasing knowledge are still "lasting monuments," while systematic and, for their time, learned works have long since sunk into oblivion?—it will be found that those simple records of the experience of long lives, devoted with ardent zeal to the cultivation of medical knowledge, retain their value unto the present moment, and will doubtless continue to be consulted and referred to by succeeding generations, as mines of invaluable practical information. Now, if the practice of one man, as in the case of Hunter, Harvey, Smellie, and a host of others, can produce recollections of facts which have immortalized their names and conferred lasting benefits on every department of the healing art, how much more useful and important will be the combined efforts of hundreds of fact-collectors, concerning all the results of their practice and their observations thrown into one great depository, viz: the Canadian Medical Association. If I have tired your patience, gentlemen, by dwelling too long upon what appears to me to be the great object and what will form the great strength and importance of this association—I mean the collecting of valuable facts on questions of medical and surgical practice and public hygiene—I beg your indulgence; and yet there is another point which I must not omit, I mean the effect these meetings have on our social position. It brings together the members of the medical profession, it enables us to know each other, it binds us together with a social bond which must ever be not only a source of sincere

tisfaction but of mutual improvement and advan-ge. The friction of different minds earnestly en-ged in similar pursuits is peculiarly valuable, for is scarcely possible for any man who has been oved by the same impulses, agitated by the same rs, excited by the same hopes, and elated by the me successes, who has felt the responsibilities, and perienced the hours of painful anxiety in the treat-ent of difficult and dangerous cases, not to derive nsolation and benefit by consultation and commu-cation with his professional brethren."

He then proceeded to allude to some of the new scoveries which had taken place during the year in e practice of medicine, surgery, and mid-wifery.

Among other matters he reported some cases in ich Prof. Thomas had successfully transfused milk, operation which was first performed by the Presi-at during the great cholera epidemic in this city, and th the most beneficial results. It was of great im-rtance to remember that milk may be used as a bstitute for blood in transfusion, for, besides ng always more accessible, it might, in cases of demic among the human family, be preferable, as cannot in such a case be certain that the blood to injected is free from the germs of the disease it is nded to combat.

The treatment of fibroids of the uterus by hypo-mic injections of ergot was also alluded to, Dr. dder having found great benefit from it. The dress concluded with a reference to the serious ses which the medical profession and the world at ge had met with by the death of a very large mber of distinguished men. Great Britain had ; Bennett, James Clark, Latham, Headland, Sir orge Gibbs, Letheby, Donovan and many others. rmany had lost Prof. Franke; France had lost dral, Levain, Ballard, Duchesne; while the medi-c ranks of Canada had lost Dr. Cole of Clinton, . Yates, of Kingston, and Dr. Beaumont, of this r.

A number of new members were elected, and . White and Rochester of Buffalo, as repre-ting the American Medical Association, were ited to seats on the platform. Dr. White rned thanks for the compliment. Papers re read by Dr. Jos. Workman, of Toronto, on minal Insanity, by Dr. Strange of Aurora, t., on Ovariotomy, by Dr. Rosebrugh of Ham-n, on Membranous Dysmenorrhœa and its atment. A committee, consisting of Drs. dder, Hingston, Workman, Clarke, Playter, niff and Oldright were appointed to prepare a memorial to the Dominion Government with respect to vital statistics and public hygiene.

In the evening of the first day the members attended a very pleasant gathering, given by Mr. Bickford, whose grounds were brilliantly illuminated. A band of music was in attendance, and dancing was indulged in. A most bountiful repast was prepared, and everything passed off as pleasantly as could be desired. On the second day, after routine and some general business, papers were read by Dr. Geikie, of Toronto, on "Gastric Ulcer," by Dr. Trenholme of Montreal, on the "Treatment of Fibroid Tumours of the Uterus," by Dr. Grassett, on "Antiseptic Surgery."

ELECTION OF OFFICERS.

Dr. Thornburn submitted the report of the Nominating Committee, which was concurred in; President, Dr. Hingston; Vice-Presidents: For Ontario, Dr. Workman: Quebec, Hon. Dr. Ross; New Brunswick, Dr. Bayard; Nova Scotia, Dr. Moran; Secretaries: for Ontario, Dr. Zimmerman; Quebec, Dr. Russell, Jr.; New Brunswick, Dr. Herrington; Nova Scotia, Dr. Almon; General Secretary, Dr. David, Montreal; General Treasurer, Dr. Robillard, Montreal.

The following Committees were appointed:

Publication.—Dr. David, *Chairman;* Drs. Robillard, F. W. Campbell, Howard and Osler.

Medicine.—Dr. George Ross, *Chairman;* Drs. Mullin and Sweetland.

Surgery.—Dr. J. H. Richardson, *Chairman;* Drs. Oldright and Kincaid.

Obstetrics.—Dr. Ross, *Chairman;* Drs. Strange and Rosebrugh.

Therapeutics, New Remedies and Medical Jurisprudence.—Dr. Fulton, *Chairman;* Drs. D. Clarke and Hornibrook.

Necrology.—Dr. Osler, *Chairman;* Drs. Graham and Farrell.

Medical Education and Literature.—Dr. Howard, *Chairman;* Drs. Hodder and Parker (Halifax).

Climatology.—Dr. Marsden, *Chairman;* Drs. Playter, Baynes, Tye, Dewit Martin, Larocque, Ross (Quebec), Botsford, Canniff and Jennings.

Delegates to the American Medical Association: Drs. Grant, Sweetland, Hingston, David, Fulton, Thornburn, Marsden, Russell, Sr.; and to the

International Medical Congress to be held at Philadelphia, next month:—Drs. J. Ross. F. H. Wright, Macdonald, Malloch, Grant, Brouse, Workman, Dickson, Osler, Wilkins, Craik, Russell, Jr., Earl, Wickwire, Canniff, Rosebrugh, Yeomans.

Dr. Hingston thanked the Association for the marked honor which had been conferred on him. He was deeply sensible of that honor, especially as he would succeed one who occupied, and justly occupied, so high a professional and social position in the country. He only hoped he might fulfil the duties belonging to the office in such a manner as to meet with the approval of those who had done him the honor."

It was unanimously resolved to allow the Secretary $100 for his services, and to pay the Treasurer's expenses.

On motion of Dr. Osler, it was decided that the next meeting of the Association be held in Montreal on the second Wednesday in September.

Dr. Hingston, Montreal, submitted the report of the Committee on Medical Education, recommending that the medical education in each Province be assimilated, so that a license to practice in one Province may be understood to extend to all the Provinces of the Dominion.

The report was received.

Dr. Hingston moved, "That this Association is of opinion that the sanitary laws at present in existence in the Dominion are insufficient to meet the requirements of public health; that a system of public hygiene must embrace an acquaintance with vital statistics; that the importance of that knowledge is recognized elsewhere; that in countries not more favorably situated than Canada, systems more or less complete of vital statistics obtain, and sanitary laws have been enforced; therefore this Association is of opinion that it would be within the scope and function of the Dominion Parliament that such a comprehensive scheme should be introduced as would supply a much-felt want, afford to the members of the profession throughout the Dominion and other scientific persons additional means of acquiring a more extended knowledge of the more prevalent diseases in the different parts of the Dominion, and establish comprehensive laws relating to public health." Carried.

The President stated that a memorial had been received from the Exemption Committee of the Toronto City Council asking the Association to support the abolition of exemption from municipal taxation. As it was shown that the subject was one which did not come within the objects of the Association the letter was laid on the table.

Dr. Reeve, Toronto, read an interesting paper on "Otology or Aural Surgery," and exhibited some instruments used in his practice.

Dr. Yeomans and Dr. Oldright declined to read their papers because of the lateness of the hour.

Dr. Trenholme, Montreal, exhibited Molesworth's instruments, which were examined with much interes by the members.

The thanks of the Association were presented to Dr. Hodder, for his conduct in the chair; to the Toronto members of the Association for the reception they had given to their visitors; to the Mayor fo the use of the Hall; to the Railway and Navigation Companies; to the General Secretary, Dr. David, and the Treasurer, Dr. Robillard.

The Association then adjourned.

Third Day's Proceedings.

The members of the Association and their friends assembled at the Northern Railway depot, at 8 a.m. where a special train was in readiness to convey them on their trip to Lake Couchiching. On the arrival o the train at Belle Ewart, the steamer "Lady of the Lake" was in waiting to convey the party on a trip round the Lake and through the Narrows to Couchi ching. The Company went to the Hotel, where a sumptuous dinner was prepared which all seemed pre pared to do justice to. After dinner, the usual loya toasts were drunk and responded to, and a vote o thanks passed to the Northern Railway Company for their courtesy to the Association. While there, some engaged themselves in fishing, others in boating, bath ing, &c. The Company returned home in the even ing, much pleased with their journey.

BIRTH.

At Port Dover, Ont., on the 4th of July, the wife o Charles Battersby, M.D., of a son.

MARRIED.

At the Olivet Baptist Church, Montreal, on the 12th Sep tember, by the Rev. John Gordon, Oliver C. Edwards M.D., C.M., to Henrietta, daughter of William Muir, Esq.

see front of 4:575 [illegible]

Canada medical record