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Progress of Medical Science.

EXPLOSIVE COMBINATIONS IN PHARMACY.

We select the following items from an interesting article on dispensing in the London *Chemist's and Druggist's Almanac* for 1880:

Chloride or iodide of nitrogen is formed by the addition of chlorine or a chloride, or iodine or an iodide, to ammonia; and this compound is liable to violent explosion on coming in contact with phosphorus, iodine, arsenic, olive or cod-liver oil, turpentine, etc.

Tincture of iodine and ammonia are often prescribed together, and iodide of nitrogen is necessarily produced. The rarity of accidents is due to the fact that the iodide is not free from water.

Mr. Rice, in *New Remedies*, mentions an explosion resulting from the preparation of the following prescription, iodide of nitrogen being evidently the cause:

℞ Iodinii, gr. xv;
Lin. camph. co.,
Lin. saponis co., a a gr. lx.

A concentrated solution of iodine and iodide of potassium was filtered through paper. The next day the filter was touched to be removed, when the paper and funnel broke into atoms with a loud explosion.

Concentrated solutions of permanganate of potash in alcohol are liable to explosion, and bichromate of potash in alcohol may ignite the latter. Aqua regia will also often cause an explosion with alcoholates or essences.

Chlorate of potash mixed dry with tannin is

dangerous, and an explosion has resulted from its mixture with muriate of morphia. The following prescription was presented at a pharmacy in New York: it cannot be prepared without an explosion:

℞ Lactis sulphuris, gr. iij;
Antimon. sulph. aurant., gr. iij;
Zinci valerian., gr. i;
Potass. chlorat., gr. ij.

The addition of nitrate of silver to essence of bitter almonds to remove the hydrocyanic acid has been followed by ignition.

The following compounds have at different times caused more or less serious accidents:

℞ Calcis hypophosphitis, gr. viij;
Potassæ chloratis, gr. xij;
Ferri lactatis, gr. v.

The trituration of hypophosphite of lime alone has sometimes resulted in an explosion. A man was killed at Erfurt while drying one kilogramme of the salt in a sand-bath. It is said to be most dangerous if quite pure.

℞ Glycerini, f 3 ij;
Acidi chromici, 3i.

This mixture can be made by adding the acid to the glycerin by very slow degrees.

A mixture containing chlorate of potash, tincture of perchloride of iron, and glycerin once burst in the pocket of a patient.

Pills containing oxide of silver are liable to inflame if they become warm. They have taken fire in the pocket of a customer, causing severe burns.

Other compounds liable to inflame during or after preparation are permanganate of potash and extract of milfoil, permanganate of potash and reduced iron in pills, golden sulphuret of antimony and chlorate of soda in pills.

It is always dangerous to associate glycerin or,

in general, any deoxidizer with easily-reducible compounds, such as the permanganates, chromic acid, the chlorates, and some organic acids.—*Boston Journal of Chemistry*.

ON VARIOUS FORMS OF FUNCTIONAL CARDIAC DISTURBANCES.

BY BEVERLEY ROBINSON, M.D., Lecturer upon Clinical Medicine at the Bellevue Hospital Medical College, New York.

(Continued from our last number.)

Physical investigation discovers clearly two facts: 1st, that there is no evidence of structural lesion. 2d, the presence of signs which enable us to affirm that the heart's walls and orifices are sound. If we bring percussion to our help, we find the heart has its usual size. Whenever functional trouble is conjoined with organic trouble, ordinarily the heart is, without question, more or less enlarged. Palpation of a heart functionally disturbed finds the apex at its normal seat; does not recognize such increased power as one would expect to find if the organ were hypertrophied, and seldom has a sensation approximating that of a "thrill." If auscultation be employed, there are usually no murmurs, and the heart-sounds, barring what is due to excitability, are healthy. If murmurs exist they indicate the accompanying blood condition, and this is indicated more by their seat and time of greatest intensity than by anything in the actual tone of the murmurs themselves. We have had great reason to believe, during the last few years, that many cardiac murmurs, once assumed to be evidence of organic trouble at the orifices, are only due after all to what should be considered functional trouble. And in the same line of reasoning I would now hold that, even with very pronounced disorder of cardiac action, it is not correct to infer the existence of either dilatation or fatty degeneration of cardiac fibre. The causer mentioned above are usually the origin of all the symptoms, and once they are effectually removed, the heart will come right of itself. The first sound of the heart affected with functional disturbance is sometimes accompanied with a clearly distinct metallic tinnitus, which is due, oftentimes, not as Hope affirms, to the noise of the cardiac impulse against the sixth rib, but simply to a stomach inflated with the gases of imperfect and prolonged digestion. I have seen this symptom persist for many weeks, and then quietly subside under the influence of a well-systematized treatment directed against the dyspepsia. In the diagnosis of functional trouble of the heart, the first and most important matter is to determine that no organic heart affection exists. Afterward we must endeavor to determine to what extent the signs present are occasioned by complicating symptoms of functional nature. This we are unable accurately to affirm in a certain number of cases, after a single examination, no matter how carefully and accurately made. Upon weighing fairly all symptoms

present, the age and circumstances of the patient, his preceding history, his hereditary tendencies, the nature of his employment, etc., we are still obliged to apply the touchstone of treatment in order to reach the exact truth. Even physical examination, so sure at times in the results afforded, will occasionally leave the mind uncertain as to the correct interpretation of the signs it makes known. The normal sounds of the heart are so much obscured by rapidity and irregularity of action, and so many general phenomena are present which may, at first, be attributable to organic disease, that we are forced to suspend judgment for a time. True it is that the varying degree of painful symptoms, their lack of permanency particularly, and the absence of grave disturbance, such as dropsy, hemorrhage, paralysis, etc., all point more directly to functional disorder than to structural disease.

But how many examples of the latter kind remain for a long period ignored, owing to the simple, though not always recognized fact, that they are covered up, or concealed from view, as it were, by the presence of a complicating neurosal affection, only those who practice frequent auscultation can be aware. Now it is just this very troublesome element of disease, the nervous one, which it is important to eliminate by judicious treatment, and to do this quickly and effectually we must rely, to a certain extent, upon the proper use of well-selected therapeutical means, but we should also rely greatly upon more power. If the physician consulted be thoroughly conversant with the complex nature of the affection he is called upon to treat, and yet feels confidence in his own resources, he will take positive ground by affirming in the beginning that many, if not all of the distressing symptoms experienced by the patient are the sequelæ of a deranged nervous system. He is abundantly justified in so doing, first, because in the majority of instances the future will prove the truth of his statements, and in the few instances in which he may, perhaps, be partly in error, the immense moral weight obtained from the start is of incalculable advantage to the patient. And even supposing, what is only rarely true, that there is in reality present an advanced stage of organic cardiac disease, we know well, by daily contact with hospital patients, that freedom from emotional excitement, perfect rest and tranquility, good food, hæmatinics, and the moderate use of digitalis, strychnine, and carbonate of ammonia, will work wonderful results. Make such a patient despair by telling him he has incurable or real cardiac disease, and soon the onward and downward tendency of his disease will be so marked, in spite of all our efforts, that we shall have to deplore rapidly fatal cases in which, by a justifiable deceit, there was the possibility of several years of life. Of course such a line of conduct as I have traced would not be permissible where sudden death might be anticipated or major interests of great moment are at stake. And look for a moment at

a sad, though usual example, of daily occurrence : Take a young fellow, like one among yourselves, who is simply run down temporarily in bodily vigor by too great sedentary occupation, combined with mental strain, and, perhaps, abuse of tobacco and coffee. He commences to be troubled with disagreeable, or even painful cardiac sensations. He cannot sleep comfortably at night, and after a half-dozen whiffs of a cigar, or a rapid walk of short duration, his heart seems suddenly to stop, or to beat forcibly and rapidly for a few moments, and then give intermittent and irregular shocks, which make him believe that all his internal machinery is out of gear. Under these circumstances he consults some experienced physician, who informs him solemnly that he has heart disease. What is —what can be the result—but gloomy forebodings, and a restless, irritable, feeling which forbids all steady, honest work, and makes him for months and years the victim of groundless fears? Better far that the examination had never been made, or the medical man consulted, for after a time, with improved hygienic surroundings, and more sleep and leisure, such cases might often come out all right. If not, abandonment for a time of tea, coffee, and tobacco, and the use of moderate doses of henbane, chloral, or aconite, with the local application of a belladonna plaster in the precordial region, will get the heart soon in good working order. During a painful attack of cardiac palpitations it may be advisable to give an opiate or an antispasmodic remedy. Tincture of lavender, aromatic spirits of ammonia, chloric ether, elixir of valerianate of ammonia, etc., are all good, and may be severally employed with advantage to the patient in relieving his distress. For several years past it has been my habit to combine the three first in equal quantities with an amount of syrup equal to the three in bulk. Of this mixture I give a teaspoonful in a little water every hour, until the painful feelings are notably relieved. Alcoholic stimulants are not debarred by this method of treatment, especially if the patient be weak and complain of fainting sensations.

There are numerous examples, however, in which the functional trouble accompanies a moderate degree of organic cardiac trouble, and so soon as the former is relieved, the latter remains innocuous with a little judicious care for a long series of years. The functional trouble may be dependent upon the condition of the blood, the stomach, or the gouty diathesis, or what is still tolerably frequent—a combination of different pathological conditions. Manifestly, in all such cases, while carminatives, small doses of digitalis, or the remedies already indicated, may be usefully employed to relieve occasional disturbance, paroxysmal in character, permanent relief can only be obtained by remedies directed against the causal agencies at work. If a plethoric state be present, use mild depletory measures, such as small, repeated doses of the neutral salts; if anæmia be the underlying difficulty, iron, generous diet, and life in the open

air, are mainly to be relied upon; for relief of dyspeptic trouble, regular meals, riding on horseback, and rationally formulated stomachics, varied according to prominent indications, should be persistently insisted upon; as for gout, potash and lithia salts are our sheet anchors, and soon an improvement of the cardiac condition will follow their exhibition. If the indications be complex, our formulæ should be made, so far as possible, to meet the requirements of the individual cases.—*N. Y. Medical Record.*

TETANUS: STUDY OF FOUR HUNDRED AND FIFTEEN CASES.

Dr. D. W. Yandell (*The Brain*) reports his study of four hundred and fifteen cases of tetanus. This study points to the following conclusions: (1) Traumatic tetanus is most fatal during the first decade of life. (2) It usually supervenes between four and nine days after the injury. (3) The largest number of recoveries are found in cases in which the disease occurred after the lapse of nine days from the injury. (4) Where tetanus continues fourteen days, recovery is the rule and death the exception, apparently independent of the treatment. (5) Tetanus arising during the puerperal state is the most fatal form of the disease. (6) Chloroform has, up to this time, yielded the largest percentage of cures in acute tetanus. (7) The true test of a remedy for tetanus is its influence on the history of disease. (a) Does it cure cases in which the disease occurred prior to the ninth day after the injury? (b) Does it fail in cases whose duration exceeds fourteen days? (8) Tried by these tests no agent has yet established its claims as a true remedy for tetanus.

SUBERINE IN EXCORIATED NIPPLES.

(*Lyon Medical.*)

The treatment advised by Dr. Brochard for sore and excoriated nipples is so simple that it deserves publicity:

"As soon as an excoriation or a crack, no matter how small, appears upon the breast of a nursing woman, the nipple and areola should be washed with *pure water*, and, after drying, powdered with *suberine*, or impalpable powder of cork. Suberine, which I always use for infants, is far preferable to lycopodium, which is an inert powder, because it contains tannin, and is exceedingly cheap, an important consideration with many mothers. After applying the powder, the nipple is covered with a piece of gold-beater's skin, cut star-shaped, and pierced in the centre with several holes made with a very fine needle.

"Whenever the child is to be put to the breast, the suberine should be washed off with water, and the gold-beater's skin placed over the nipple, thus allowing the babe to suck without causing pain to the nurse. After the infant has finished its meal, the nipple is again washed, powdered and covered."

ACHING KIDNEY.

By J. MATTHEWS DUNCAN, M.D., LL.D., in *Medical Times and Gazette*.

This disease is sometimes, both in men and women, very easily recognized. There are aching in cases of what is called floating kidney. The patient can put her hand on the lump, and say, "Here is the pain," and there is no difficulty in recognizing the disease. But there are some cases in which the disease is very difficult to identify. In pregnancy, for instance, right or left hypochondriac pain is very frequent. In many cases I have been able to be quite sure, from the history before and after pregnancy, that the disease was not to be classified in the vague way that is implied in giving it the name of hypochondriac pain, but that it was really a case of aching kidney. In pregnancy you have the very opposite conditions to those in floating kidney. If pregnancy is advanced, you can not get at the kidney to feel it and identify its position. Here I may remark that, while the disease often occurs in pregnancy, yet some women who are liable to it do not suffer while in that condition.

The disease in women is not a rare one, and its characters are the following: One or other kidney is the seat of pain. It is not a neuralgic pain; it is a heavy, wearing pain deep in the side. It is in the region of the kidney; and in many cases, as I shall presently tell you, you can easily identify it as being in the kidney itself. It is not generally that kidney-pain which is a familiar symptom of calculus. In such cases the pain is the pain of the pelvis of the kidney. You have in the region of the small ribs a boring or a nail-like pain. Patients with aching kidney generally point to the hypochondriac region, not to the back, as they often do in cases of calculus in the kidney. This pain is frequently accompanied by pain in the corresponding lower limb, referred most frequently to the course of the sciatic nerve, sometimes to the course of the anterior crural. The pain is often accompanied (and you will find this of importance throughout all the subjects of this lecture) by irritability—I do not say disease—of the bladder; and it is frequently accompanied by pain in the region of the ureter corresponding to the kidney affected. This pain is not rarely present only during the monthly periods. When it is present only during the monthly periods it may be classed with that disease, which is very ill-defined, called dysmenorrhœa. It should never be placed there unless you wish to use the word dysmenorrhœa in a very wide sense. If we use the word as including aching kidney, we might as well use it as including headache—a use which would be in accordance with what is extensively done by writers. This disease, however, often eludes the examination of the physician, because it occurs in many cases only during the monthly periods. In all cases it is then aggravated. I do not think I have ever seen a case in which the patient did not

volunteer the statement that the pain was worse at the monthly time.

It is not usual to find both kidneys aching; and I guess—I can use no stronger word—that the left kidney is much more frequently the seat of disease than the right one. You are not left in your diagnosis in all cases merely to identification of the seat of the pain, although that may be sufficient. Frequently in the region of the pain you can find distinct fulness; that is a very important condition that I have not time to explain to you. It can scarcely be made out in a fat woman; but in many cases this condition of fulness over the affected kidney is easily recognized. In addition, swelling of the kidney or of the suet, or of both, is not rarely to be made out. The physical examination of the kidney is too much neglected. It is not in floating kidney only that you can feel the organ. In many women who are not nervous, yielding themselves freely to examination, and who are not fat, you can feel the kidney with distinctness; and in cases of this kind you can frequently make out, as I have said, that there is a swelling of the kidney or of the suet, or of both. There is also generally tenderness, sometimes great tenderness.

The treatment is to be conducted on the general principles applicable to the therapeutics of neuralgia or slight hyperæmia; and these two conditions are not so very remote from one another as may at first sight appear. A neuralgia sounds as if it were something quite different from a hyperæmic condition; but that has to be proved. The remedies I have found of most service in simple cases of this kind are tonic regimen and tonic medicines, especially iron in the form of the tincture of the perchloride combined with mild diuretics in small quantity, and especially the common sweet spirits of niter.

THE PROBABLE VALUE OF CHLORIDE OF BARIUM IN INTERNAL ANEURISM.

I wish to draw the attention of the profession to the action of the soluble salts of baryta on the heart and blood-vessels, and to their probable efficacy in the treatment of some varieties of internal aneurism.

In the middle of February, 1878, it fell to my lot to deal with an abdominal aneurism.

The patient was an elderly married lady, aged 65; she was not robust, on the contrary, fragile, but of such active habits in social and philanthropic work, that she perpetually overtaxed her strength; with the exception, however, of an attack of pleurisy, and an occasionally very troublesome cough, she had enjoyed very fair health; she was the mother of three children, and had had several miscarriages; she had been always temperate in every sense of the word, and during the greater number of her years had been a total abstainer from every kind of alcoholic drink; she manifested symptoms of inherited gout, and a neat

relation gives indications of having divided the inheritance with her.

She confessed that she had often felt throbbing in the body, and pain there, and also in the back on the left side, but she had made no complaint about the matter to her medical attendant, and fulfilled her usual social and domestic duties until she was, one day in February, 1878, attacked with severe shivering, and a sense of severe malaise. On the following morning I found her temperature $102^{\circ}4$, and on searching for the cause of the pyrexia I discovered a pulsating tumor, painful, situated behind, above, and to the left side of the umbilicus; there was a loud systolic bruit heard over the tumor, and in the course of the common iliacs; the bruit was heard with the stethoscope in common use, and also very distinctly with Spencer's differential stethoscope, which can be used without any pressure; there was also a bruit heard close to the vertebral column on the left side; pressure on both external iliacs greatly increased the pulsation, and so distressed the patient that I received a decided impression that it would not be advisable to repeat the experiment; the throbbing was also greatly increased by any exertion, and by any excitement or emotion; the transverse colon could be felt crossing the tumor, and when distended with flatus it gave rise to very distressing increase of throbbing. The pulse varied from 72 to 100, usually about 84; at the wrist it was full, compressible, but with a considerable degree of tension, and it had the same character in the carotids and iliacs. There was a moderate degree of anæmia, and a worn, distressed appearance of the countenance. No vomiting, appetite very small, digestion weak, bowels relieved by enemata; sleep very much disturbed and scanty.

The case was seen by several professional gentlemen, and independently by Mr. J. W. Teale of this town; they all agree that the case was one of abdominal aneurism.

The patient was put upon Tufnell's diet, and kept perfectly at rest in the horizontal position. During this treatment, and at the commencement of it, the urine was examined several times; specific gravity usually about 1026—at first no albumen, in about one month just a trace of albumen, and after that no albumen at any examination; at the end of two or three months of Tufnell's treatment the daily average of urine was about one pint three ounces. The temperature soon fell to normal, and there was no other cause discoverable to account for its rise; during the progress of the case the temperature only very occasionally rose to $101^{\circ}2$, as from any emotional excitement, and also during a distressing toothache from a necrosed tooth.

At the end of five months of this treatment, which was carried out by the patient and attendant most conscientiously and rigidly, there was no improvement in any way; the tension of the pulse remained the same, and the throbbing of the

tumor had rather increased, so that under any excitement, as, for instance, during a thunderstorm, it quite shook the bed; the sensations of the patient and my own observations began to prepare me to expect the worst.

There were reasons for abstaining from the use of large doses of iodide of potassium, so I did not try it. After careful consideration I selected chloride of barium as a probably useful remedy, and began to give it in doses of one-fifth of a grain three times a day; after three or four weeks I increased the dose to two-fifths of a grain, and, with the exception of a very short trial of three-quarters of a grain, I kept to two-fifths of a grain during the remainder of its administration. Within a fortnight of the use of the chloride there was a very marked diminution of throbbing both to the sensation of the patient, and by my own observation; after five weeks use of it the patient was able to bear the removal of a necrosed molar tooth (which had for a few days given rise to neuralgia in the head and to distressing face-ache) without an anæsthetic; the tooth was, of course, not firmly fixed, but I should not have dared to allow its extraction previous to the administration of the chloride; and after nearly five months continued use of the same remedy the tumor was so reduced that it could scarcely be felt, and only a faint systolic murmur could be heard. At the present time, four or five months since the discontinuance of the chloride of barium, there is still a slight systolic murmur, but no throbbing; the pulse is about 72, and has entirely lost its unnatural tension.

Mr. J. W. Teale has recently seen the case again, and he expressed himself highly gratified with the change in the patient's state. So that testimony can be borne by an independent trustworthy practitioner to the accuracy of the diagnosis in the first place, and to the reliability of the improvement.

It will now be interesting to examine into the *modus operandi* of the drug. According to the experiments of Boehm (Ziemssen vol. xvii. p. 377) it would appear that the salts of baryta in overwhelming doses paralyse the heart and blood-vessels; but that in more moderated doses they stimulate or irritate the heart and blood-vessels, so that the pulse is made more rapid, and the blood-pressure very greatly increased. What are the doses which will produce the opposite results is not very certain. A poisonous dose of the chloride is half a grain; Ringer puts the dose at from half a grain to a quarter of a grain, but in the edition I have he does not state for what purpose. Hammond gives doses of three-quarters of a grain three times a day in multiple spinal sclerosis—as a nervine stimulant I suppose. I have myself taken about one grain three times a day for several weeks with a very marked stimulant effect. So that I should expect the stimulant dose to be somewhere near one grain, and the paralyzing dose nearer two drachms. The dose I

selected was under that which I suppose could produce a decided stimulating effect; and, as a most essential improvement occurred at the beginning of the use of the salt, when I was giving one-fifth of a grain, I should not be surprised to learn that I should have done as well, if not better, by keeping to that quantity. There was no marked decrease in the rapidity of the pulse, and no sudden diminution of the impulse; the throbbing gradually subsided, and the general improvement went on *pari passu* with it. There was not any sign of a paralysing influence of the drug on the heart. I regret that I had not in my possession a sphygmograph, and that I cannot, therefore, give any sphygmographic tracings.

The drug appears to have a decided affinity to the muscular coat of the arterial system; and I imagine that it restored tone to the diseased portion of the arterial coat, and thus gave rise to consolidation of the weakened arterial wall. In my case the aneurism appeared to be fusiform rather than sacculated, and therefore deposition of fibrin could not very readily take place.

It may be said that since the chloride of barium causes an increase in the blood pressure it is not reasonable to expect that it should do anything but harm in a case of aneurism; no one, however, who has witnessed the beneficial effects of ipecacuanha in dyspeptic vomiting, or of arsenic in gastro-enteritis, or of cantharides in some cases of nephritis (*Vide* Ringer's Therapeutics), will be deterred by the facts mentioned above from giving the chloride of barium in aneurism in an appropriate dose. Of course it may be asserted that the improvement in my case arose from the prolonged rest and rigid diet, and was only coincident with the administration of the chloride; this is quite possible, but the progress of the case did not make it appear to me at all probable.

The question of the value of the drug in aneurism can only be decided by repeated trial; and I report my case as fully as I have done, that it may be tried by others in suitable cases.

In my opinion preference should be given to the chloride of barium in fusiform aneurisms which have hitherto not been very amenable to treatment also in the aneurisms of advanced age; and it might also be tried in any case in which iodide of potassium is inadmissible, or does not promise to be useful.

Of course perfect rest is essential to any medical treatment; and it would be well to try Tufnell's diet alone at first, and to adhere to it as far as possible during the use of the drug. By F. Flint, M.D.—*The Practitioner*.

TREATMENT OF EPILEPSY.

Extracts from a clinical lecture of Prof E. C. Seguin, M.D., in the *Phila. Med. Times*.

Brown-Séguard has shown that counter-irritation at the seat of the aura is often of the greatest

benefit in addition to them. This serves to transmit to the seat of disease in the encephalon a sensation which may counteract the one proceeding from the latter. Blisters, setons, and the tourniquet or other species of ligature are the forms of counter-irritation employed. The aura acts as a flag or signal to show us the location of the trouble in the brain, and it often enables us to designate this with considerable exactness. It is supposed by the public (and by a large number of the profession) to be the starting-point of the epileptic seizure; the truth is the irritation starts in the brain, at the seat of the lesion present, and travels along some sensory tract to the point where the fibres constituting the latter terminate in the periphery. I therefore prescribe frequent blistering of the groin. The blisters employed should be small (say as large as the end of the finger), and should be repeated every second or third day.

In the general treatment of epilepsy I use only one formula in order that I may keep an exact record of the quantity of the bromides that is taken in each case. This gives a standard for all, and enables me to compare readily the quantity taken by different patients. My first solution is: ℞ Ammonii bromidi, ℥ss; potassi bromidi, ℥ij; aquæ, fl. ℥ vij. M. My experience shows that simple water is best for bromide solutions. I never employ elixirs or syrups, for patients soon tire of them, and, as a rule, prefer the saltish taste to salt mixed with sweet. In my second solution I substitute bromide of sodium for bromide of potassium, as it seems to suit some patients better than the latter. In my third solution, which I have used during the past two years only, I substitute chloral of bromide of ammonium in the above, and this prescription I find is excellent for a certain class of cases. Allowing seven teaspoonfuls to the ounce, it is seen that in the first mixture one teaspoonful contains ten grains of bromide of potassium and five grains of bromide of ammonium; in the second, ten grains of bromide of sodium and five grains of bromide of ammonium; and in the third, ten grains of bromide of potassium or sodium and five grains of chloral; that is, in every instance, one teaspoonful of the mixture contains fifteen grains of the "anti-epileptic." It is generally necessary to produce mild bromism; but severe bromism is very injurious. It is always a delicate matter to steer between the two extremes of too little and too much bromide, and it ordinarily takes me from one to three months to fix upon the proper dose in any given case. Hence I invariably refuse to treat out-of-town patients for epilepsy unless they consent to remain in New York for at least a month after the treatment is commenced. You will find marked difference in individuals as to the toleration of the bromides. Thus, in a lady thirty grains a day produced a most profound effect; on the other hand, I have known a baby a few months old take seventy grains a day and exhibit no signs of bromism. At present there is a gentleman under my care who is taking

one hundred and sixty grains of bromides in the twenty-four hours without the slightest inconvenience. In order to determine the effect of the bromides we must observe: (1) whether the intellectual faculties show a tendency to become sluggish and dull, and (2) whether the muscles have lost tone, which produces a change in the physiognomy. A delicate test of bromism is that discovered by Voisin, viz., the irritation of the fauces and soft palate with a spatula or brush, as the disappearance of this reflex is a very constant sign of bromism. It should never be omitted. Voisin claimed that when this point was reached we need go no farther; and this is a good general rule, though it has its exceptions. In some cases the attacks return from time to time, notwithstanding this evidence of bromism.

The eruption of acne is looked upon by the patient and friends as a very important sign of bromism, but not by the physician. It is really due to some peculiarity of the individual when it occurs, and varies very greatly in severity and in location in different patients. The shoulders, neck, and face are most apt to be affected. In some cases the acne becomes troublesome long before doses sufficiently large to control the epilepsy are reached; but the gentleman who is taking one hundred and sixty grains of bromides a day scarcely suffers at all from it. More serious effects of bromism are those such as paresis and impairment of intellect; but it is never necessary to push the remedies to this excess. It is very seldom that morbid bromism is produced if proper caution is observed.

The time necessary to continue the drugs is still under discussion. Some authorities are content with one year. I hold that the patient should not give up their use until he has been three years without any epileptiform manifestation, however slight. Brown-Séquard and Voisin place the limit at three to five years. I have seen patients who had left off the medicine at the end of two years, and then had a return of the trouble. You will often be importuned by the patient and his friends to allow him to give up, but you must be firm in insisting upon the continuance of the treatment. It is seldom, however, that we can prevail upon patients to keep it up three years after the attacks have entirely ceased.

The time in the day for the administration of the bromides is an important factor in success in treatment. For a time I followed Brown-Séquard in his practice of giving the greater part of the necessary quantity at bedtime, because in the immense majority of instances the attacks occurred between bedtime and 8 or 9 A.M. My plan is now to give the greatest amount just before the time that the attacks are wont to occur. In the case now before us we can go upon Brown-Séquard's old rule, and I propose, indeed, to order only one dose of the bromide mixture in the twenty-four hours, for the reason that the patient never has any fits now except early in the morning. At first he

should take two teaspoonfuls at bedtime, and the dose should then be gradually increased until a small amount of bromism is produced. It is best to give it on an empty stomach, and I think we are much less likely to have acne produced if we use alkaline instead of simple water for our mixture. I employ Vichy with those who can afford it, and a solution of bicarbonate of sodium among the poor.

In conclusion I will mention the manner of giving the bromides in different cases, it being understood that the patient in each instance is an adult:

1. When the attacks occur at night or early in the morning we might give one teaspoonful of the mixture before each meal, and then at bedtime.
2. When the attacks vary as to time we might give two teaspoonfuls in the morning, one before supper, and two or three at bedtime.
3. When the attacks are more liable to occur in the daytime we might give three or four teaspoonfuls in the morning, one before supper, and two or three at bedtime.
4. In the nocturnal form we would give three or four teaspoonfuls, at one dose, either at bedtime or early in the evening. The gentleman who is using one hundred and sixty grains of bromides a day takes six teaspoonfuls in the morning and five at night.

AIDS TO DISEASES OF WOMEN.

By J. J. REYNOLDS, M.R.C.S. ENG.

LEUCORRŒA,

commonly called the "Whites," signifies any whitish discharge from the vagina, and includes, in fact, all the non-hæmorrhagic vaginal discharges.

There are four varieties:—

1. Uterine. 2. Cervical. 3. Vaginal. 4. Vulvar.

Uterine Leucorrhœa occurs especially in middle and old age, and consists of whitish mucus and epithelial debris. It is alkaline in reaction, and is often attended with a certain degree of pain.

Cervical Leucorrhœa occurs more especially during the childbearing period, and consists of transparent, thick, tenacious mucus, resembling unboiled white of egg. This is also alkaline in reaction. Cervical leucorrhœa prevents pregnancy.

Vaginal Leucorrhœa is met with more commonly in young women, and is generally light-coloured and creamy, and consists almost entirely of epithelium and oil-globules. It is acid in reaction.

Vulvar Leucorrhœa is the form generally met with in children.

Causes.—They are—(a) General (b) Local.

The general causes are:—

1. Debility of the system, as from prolonged lactation, acute or chronic diseases (phthisis), &c.
2. Hæmorrhages, as menorrhagia or metrorrhagia, producing anæmia.

3. The strumous and syphilitic diathesis.
4. Anti-hygienic conditions, as bad air, scanty diet, unhealthy occupations, &c., producing a general state of ill-health.

5. Residence in hot countries, bringing on a feeble, relaxed state of health.

The local causes are:—

1. Inflammations of the vagina or vulva.
2. Morbid states of the uterus, as congestion, acute or chronic inflammation, new growths, &c.

3. Morbid conditions of the cervical canal.

4. Local irritation, as from a pessary or excessive coitus, and, in children (especially the strumous and ill-fed), from worms and want of cleanliness.

5. Urethral hæmorrhoids.

6. Masturbation.

It must be remembered that leucorrhœa is normally present at certain times. It precedes and follows menstruation, and it is often, if not always, present during pregnancy.

Treatment.—1. Improve the general health.

2. Remove any local condition causing the leucorrhœa.

3. Check the discharge with astringent lotions; alum, sulphate of zinc, and acetate of lead, are good astringents.

The treatment of the general health must depend upon the constitutional condition present. In struma, cod-liver oil, iron, and residence at the sea-side will be very beneficial.

DISEASES OF THE UTERUS.—DISPLACEMENTS OF THE UTERUS.

Inversion of the Uterus exists when the uterus is turned inside out. The inversion may occur in various degrees, but three are usually described.

1. Depression: the fundus falls inwards, producing a cup-shaped depression.

2. Introversion: Depression greater, and the inverted portion may project through the os in the form of a round ball, not unlike the body of the polypus.

3. Perversion: This is very rare. The whole of the cervix, as well as the body of the uterus, is completely inverted. Inversion may be acute or chronic.

Causes.—Acute version is generally the result of parturition, being caused either by traction on the cord to remove the placenta, or by improperly applied pressure over the fundus uteri. It sometimes occurs spontaneously. Partial and irregular contraction of an enlarged uterus is generally thought to be a cause, the upper part of the uterus probably being relaxed and the lower part contracted. Apart from child-birth, it is chiefly caused by a fibroid polypus, or a submucous fibroid; but inversion of the uterus under any condition is rare.

Symptoms.—In recent inversion they are generally well marked, but vary much with the degree of inversion. If the inversion is great there will be

severe nervous depression and generally free hæmorrhage. Occasionally severe abdominal pain and cramps are present. On vaginal examination, the uterus will be felt in the vagina, or may even be seen outside the vulva. In slight cases there may be no symptoms, and in cases of the first degree, the cup-shaped depression of the fundus may be felt through the abdominal walls. In chronic cases there is generally hæmorrhage and often leucorrhœa as well, which is caused by the inverted mucous membrane of the uterus getting irritated and inflamed. From the pressure of the displaced uterus, bladder and rectal irritation are often set up.

Prognosis.—It is very grave. Cross states that about one-third of all cases are fatal, either very soon or within a month. Death may be due to sloughing, or gangrene of the inverted portion, hæmorrhage, or gradual exhaustion. The shock alone is sometimes so great as to quickly cause death.

Diagnosis.—Inversion has to be distinguished from a polypus or fibroid tumor, and prolapse of the uterus and vagina. The following are the chief signs of distinguishing inversion from a polypus:—

1. The history of the case. In recent inversion this is very important. The sudden shock, and hæmorrhage following labor point to the nature of the disease.

2. By manipulation from the rectum, and through the abdominal wall, the fundus uteri will be found absent from its normal position in inversion, or a funnel-shaped depression may be felt. In polypus the fundus will be in situ.

3. On vaginal examination in inversion, a rounded tumor will be felt, soft or hard, very vascular, with a velvety surface, and bleeding on slight manipulation. It will be painful to the touch, and its size will vary from alternate contraction and dilatation. A polypus is not sensitive; it does not change its size, and is not so vascular.

The diagnosis from prolapse of the uterus and vagina can easily be made by means of the sound. Its admittance for a distance of two-and-a-half inches or more at once proves the existence of prolapsus.

Treatment.—An inverted uterus may cure itself in one of three ways:—

1. Spontaneous re-inversion may take place.
2. The uterus may separate by gangrene, and a cure take place.
3. Cases are related where the uterus has been torn away and recovery followed.

In recent cases the taxis is generally successful; the part last inverted being returned first.

In chronic inversion, taxis is dangerous,—then gradual, continuous, and long-sustained pressure on the tumour is required, either by means of an air pessary, or an elastic pressure. If these means fail, a repositor will be necessary, and, as a last resort, amputation of the inverted uterus may be required, but it must be remembered that, at times, inversions exist for years without injury to health.

OVARIAN DYSPEPSIA.

J. Milner Fothergill, M.D., (*American Journal of Obstetrics*) describes "a form of dyspepsia induced and kept up by irritation arising from the ovary." The irritation, of course, must be reflex. The condition of the ovary affects the stomach very much, as the impregnated uterus may be said to do. It was noticed that patients who presented themselves at the City of London Hospital for diseases of the chest, with the usual symptoms of phthisis, had a good family history. The patient also frequently had a good physique. Closer investigation showed that the two marked features in these cases were dyspepsia, with leucorrhœa and menorrhagia. These conditions unite a defective nutrition with excessive waste, and produce a condition exceedingly favorable to the of tubercle.

The condition of the ovary was found to be the prime cause of this mischief—a state of vascular excitement in one or both ovaries, usually the left. This condition Barnes calls "cophoria." Patients suffer more or less pain in the iliac fossa much aggravated during the menstrual periods, at which time there is a more or less severe genitorural neuralgia. Pressure over the affected ovary induces acute pain during the excitement of the menstrual flow, and, at other times, in a less degree, while the patient "feels queer," as if about to faint. We have, in this condition, an important though small organ morbidly excited, and capable of giving off from its nerve centres waves of nerve perturbation, which will be felt in distant organs. These waves may break at different points. In one case the stomach may be affected, in another intercostal neuralgia may be the prominent symptom. Uterine disturbance is excited—there is frequently menorrhagia present, and always leucorrhœa. Sometimes there is diminished menstrual flow, but then there will be more profuse leucorrhœa. A distressing orgasm, recurring oftenest during sleep, makes the patient still more uncomfortable. This recurrent orgasm affects the bladder through the nerve centres of that organ, and adds incontinence of urine to the already too complicated affection in a certain proportion of the cases. Then, also, the ovary, or ovaries as the case may be, keep the uterus in a constant state of erection, and high vascularity, so that it is not strange that such patients suffer from leucorrhœa and menorrhagia; or, if instead of menorrhagia, there is an increased leucorrhœa, then the starved, overtaxed organism may prove unequal to the periodic hemorrhage.

As for the stomach, which also contains sympathetic nerve fibers, isolated nerve ganglia, and some fibers of the pneumogastric, the case is different. As has been fully proved by M. Bernard, as well as by later experimenters, the effects of a stimulus applied to the sympathetic nerves of the stomach, is to cause a diminution, or even complete arrest, of secretion. As is well known, the action of the sympathetic nerve filaments is to contract the

arteries and arterioles, while the pneumo-gastric filaments dilate them. Hence, it is easy to understand the effect of a nerve current from the ovary, which, traversing the sympathetic nerve fibrils, arrests the flow of gastric juice, more or less thoroughly, and dyspepsia is the consequence.

The etiology of these cases is involved in doubt. Inquiries seem to elicit the facts that a miscarriage, in a few cases marriage; in others who were middle-aged women, nearing the end of their reproductive life—a confinement, were the beginnings of the trouble. A few were made thus miserable by the excessive excitement due to the changes at puberty, and quite a number of the patients attributed their trouble to the excitement set up by the working of the treadle sewing machines.

The treatment for this class of evils is, first, to unload the bowels with a saline, such as sulphate of magnesia; bromide of potassium to control the conductivity in the nerves, and a blister over the region of the ovary. If the stomach is too intolerant of food and medicines they may be given per enema. Also, astringent vaginal injections, hip baths, etc., are important.

The menorrhagia is treated during the flow by quietude, cooling drinks and unstimulating food. The irritable stomach should be supplied with small quantities of food at regular short intervals.

To treat the stomach as the offending organ does no good in these cases, therefore the author begins the treatment of dyspepsia by eliminating the ovarian factor in all females before treating the stomach.

TREATMENT OF STERILITY.

At the meeting of the St. Louis Medical Society, held March 13th, a very interesting paper, illustrated by drawings, upon the treatment of sterility dependent upon endocervicitis and endometritis was read by Dr. A. C. Bernays. The treatment which is advocated he attributed to Dr. G. Simon. The reader held that sterility, and the dysmenorrhœa depending upon it, belonged as much to the domain of surgery as stricture of the urethra or fissure of the anus; that the swollen condition of the mucous membrane of the cervix caused a stricture of the neck, and this stricture was the cause of dysmenorrhœa and sterility.

The operation by which he proposed to cure this stricture is as follows: The patient is placed in the lithotomy position; the neck is split by incisions similar to those made in Sims' bilateral incisions. Now, it has been found that this procedure temporarily cures the leucorrhœa, but that the cut surfaces reunite, and the condition of the patient becomes worse than it was before. In order to prevent this, another step is necessary, namely, a wedge-shaped piece is cut from the anterior and posterior vaginal surfaces of the neck, the cuts running at right angles to the long axis of the uterus, and the base of the wedge being

external; the surfaces of these wedge-like cuts are brought together by sutures, thus prying open the split cervix and exposing to view the internal os.

Dr. Bernays has performed the operation seventeen times. Up to December, 1879, he had treated fourteen cases in this way, and in regard to these was ready to give results: Five of the patients became pregnant, and three of them had been delivered. Of these five, two had been barren between six and seven years, one five years, and the other two between three and four years. The nine others, though they remain barren, have been relieved of their leucorrhœa.—*Boston Medical and Surgical Journal*, April 1.

SULPHIDE OF CALCIUM IN THE TREATMENT OF SUPPURATING BUBOES.

My attention was first called to the value of the sulphide of calcium in arresting processes of suppuration through an article in *The Lancet* of February 21, 1874, by Sydney Ringer, M.D. Dr. Ringer claimed that, when the product of suppuration in scrofulous sores was thin and ichorous, the administration of small doses of the sulphide of potassium or of calcium promptly changed the purulent fluid to one of a more healthy character, and that the healing of the sore was promoted. He also claimed that the formation of boils and abscesses was prevented by a timely administration of small doses of the sulphides, and that, when suppuration had already occurred in such cases, the suppurative process was quickly arrested through the influence of these remedies. Opportunity for a practical test of these claims soon occurred, and resulted in my own personal conviction of their entire correctness, and I have now for the last five years habitually prescribed the sulphide of calcium in cases of threatened suppuration in phlegmonous swelling from various causes, and, as a rule, with very gratifying results. The manner of its use was practically the same as advised by Dr. Ringer, viz: 1-12 grain of the sulphide of calcium every two hours, or 1-20 every hour, during the day and up to the time of retiring. Especially have I found small doses of the sulphide of calcium useful in arresting the progress of furuncular swellings and abscesses, and in preventing their occurrence when threatening. On the other hand, I have repeatedly tested the influence of this drug upon the suppurative processes in mucous membranes, as in gonorrhœa, gleet, leucorrhœa, etc., without being able to discover that it influenced or modified the suppurative process in such cases in the least degree.

Among the cases in my private practice where prompt arrest of suppuration was quickly followed by absorption of pus already formed and resolution of tumor, and apparently from the use of the sulphide of calcium, were several inguinal buboes associated with chancroid. The simple fact that resolution occurred in these cases was (in accord

ance with the popular teaching) accepted as proof that the buboes were of sympathetic and not of chancroidal origin.

Authorities have long taught that, once the virus from a chancroid has been carried along a lymphatic vessel and deposited in the adjacent lymphatic gland, inflammation is at once set up in the substance of the gland. This, it is claimed, goes steadily on in spite of all and any treatment until an abscess is formed. This must, sooner or later, through advance of the suppurative agency or by surgical interference, result in an open ulcer, the pus of which will possess the same vicious character as the chancroid from which it was derived. This variety of bubo is known as the virulent or chancroidal bubo. The suppuration of such buboes has been considered *inevitable*, and all buboes not pursuing this course have been set down as not of true chancroidal but of simple or sympathetic origin. Inflammatory lymphatic enlargements associated with chancroid are very naturally dreaded as most likely to prove by results to be of chancroidal origin, and usually, after a few feeble attempts at treatment with a view to their resolution, glands affected are encouraged to suppurate, and prompt incision and evacuation of pus are advised as soon as the slightest true fluctuation is recognized. If suppuration is indeed inevitable, undoubtedly it is wise to encourage it, to evacuate the virulent product at the earliest moment, and thus afford access for efficient treatment for the destruction of this new-formed chancroid. For this reason I had been an earnest advocate for early incision into suppurating buboes associated with chancroid. My experience in the few cases above alluded to, however, made me incline to the belief that a thorough and extended trial of the calcium sulphide in cases of inflammatory buboes associated with chancroid might give such results as to make its use imperative in every such case.

In order to gain further light on this important matter a systematic use of the calcium sulphide was made, in my service at Charity Hospital, in eighteen consecutive cases of inflammatory bubo occurring with, or as the immediate sequel of, well-pronounced chancroid. All the facts considered of importance were noted by myself and under my direction by Dr. Johnston, my House Surgeon, and are truly confirmatory.

Thus it will be seen that, out of eighteen cases of inflammatory bubo presenting the rational evidences of chancroidal origin, and treated systematically by the use of small doses of the sulphide of calcium, resolution occurred in fifteen, and that in only three cases was incision ultimately required.

If we apply to these cases the usual rule that chancroidal buboes always eventuate in chancroidal abscesses, always suppurate and require evacuation by natural means or surgical procedure, then we must hold that only three out of fifteen cases of inflammatory buboes associated with chancroid were the result of transference of the suppurative process from the chancroid to the adjacent lymphatic

phatic gland. It is just possible, however, that the influence of the sulphide of calcium may, in arresting suppuration, extend to the true chancroidal bubo. The apparent successful use of this drug in the series of cases herewith presented at least suggests and invites a trial of its efficacy in all instances of threatened glandular suppuration, whether associated with chancroid or of puryle sympathetic origin.—*Fessenden N. Otis, M.D., in New York Medical Record.*

MANAGEMENT OF DEEP ABSCESSSES.

J. T. Kent, M.D., in discussing the management of deep-seated chronic abscesses, says: Perfect evacuation and coaptation of the walls of the abscess cavity seem to be the points to be constantly held in view. * * * The surgeon is too apt to open the cavity in its most accessible locality, when the floor is the only possible place to secure perfect drainage. The floor of an abscess will be also changed as the patient changes his attitude from the walking to the recumbent position; therefore an abscess upon a patient walking about should be sometimes opened in a different locality from one in bed. * * By perfect evacuation we obtain perfect coaptation, which is imperative; rest is therefore the only means of cure, as it permits nature to do her work in her own good way.

Superficial abscesses are of little importance compared with the deep-seated cavities involving important structures; therefore, not so much knowledge and judgment are required in the management of them. Another important feature of deep abscess is the change that occurs in the anatomical relations of the part. No anatomist will pretend to be able to give the relations of arteries, veins, muscles and nerves in deep-seated abscess of any proportions, * * but might say, as I was once known to say, "plunge in the knife." This is not my practice now. To make an opening in a deep-seated abscess at its most depending part is at times a most difficult undertaking, hence it becomes necessary to perform the operation with as little risk as possible. * * I am in the habit, according to Hilton's method, of making an incision with my scalpel through the skin at the most depending point, then, with my groove-director, I force an opening to the supposed cavity. If I have entered an abscess a small drop of pus will appear in the groove of my director, then with my dressing forceps I follow the groove in the director to the cavity, and, by separating my fingers, I force an opening which may be enlarged at will, and with perfect safety.

These hints are not given to frighten the timid from making their usual free incision in superficial and ordinary abscesses, but to encourage precaution in the very rarely met with deep-seated formations of pus in dangerous localities, as sub-muscular abscess of the thigh, submammary, gluteal, cervical and post-pharyngeal abscesses. Injections in large

abscess cavities are, as a rule, of little use, and often dangerous. Perfect rest must be procured. If it cannot be obtained by the recumbent position, it must be had by strapping, bandaging or compressing. The means will readily suggest themselves to the competent anatomist of procuring rest and coaptation, which is the all-important issue to be uppermost in the mind of the surgeon after the evacuation has been completed.

Any treatment directed to a permanent cure must be conducted in accordance with the history and etiology of each respective case. Internal remedies are often demanded, so-called alteratives and tonics are commonly resorted to by nearly all surgeons. Then, with a thorough knowledge of the most potent of all remedies, rest will crown the surgeon's labor with a fair degree of success and satisfaction.

ON GLYCERIN IN FLATULENCE, ACIDITY AND PYROSIS.

SYDNEY RINGER, M.D., and WILLIAM MURREL, in the *Lancet*.

An old gentleman, who for many years suffered from distressing acidity, read in a daily paper that glycerin added to milk prevents its souring, and he reasoned thus: "If glycerin prevents milk turning sour, why should it not prevent me turning sour?" and he resolved to try the efficacy of glycerin for his acidity. The success of his experiment was complete, and whenever tormented by his old malady he cures himself by a recourse to glycerin. Indeed he can now take articles of food from which he was previously compelled to abstain, provided always that he takes a dram of glycerin immediately before, with or directly after his food.

He recommended this treatment to many of his friends (sufferers like himself), and one of these mentioned the above circumstances to us.

We have since largely employed glycerin, and find it not only very useful in acidity, but also in flatulence and pyrosis, and that it sometimes relieves pain. We meet with cases where flatulence, or acidity, or pyrosis is the only symptom, but more frequently these symptoms are combined. Some patients rift up huge quantities of wind without any other symptoms than depression of spirits; in others we get flatulence and acidity, one or other predominating; and we meet with others who suffer from acidity, flatulence, and also pyrosis. In all these various forms we find glycerin useful, and in the great majority of cases very useful. We do not mean to say that in all cases it is superior to other remedies for these complaints; indeed in several instances it has only partially succeeded, where other remedies at once cured. On the other hand, in some cases glycerin speedily and completely succeeded, where the commonly-used remedies for acidity and flatulence completely failed. We do not pretend to estimate its relative value

to other remedies; we are only anxious to draw attention to its virtues.

Gas is in some instances formed in the stomach, in others in the large intestine, in some patients in both. Our observations were made on stomach flatulence, and as glycerin is so readily absorbed we should hardly expect that it would influence the formation of wind in the colon, except given in large doses, and when it acts as a slight laxative, and so expels the putrefying mass which forms the wind.

In some cases it removes pain and vomiting, probably like charcoal, by preventing the formation of acrid acids, which irritate delicate and irritable stomachs.

We suggest that it acts by retarding or preventing some forms of fermentation and of putrefaction. J. Mekulics (*Archiv. f. Klin. Chir.*) shows that glycerin prevents putrefaction of nitrogenous substances, as of blood diluted with water, which speedily decomposes at the ordinary temperature of the air. Two per cent. of glycerin retarded decomposition for twenty-four hours; ten per cent. for five days. If the fluid were placed in the hatching-oven, then two per cent. retarded decomposition for several hours, ten per cent. for forty-eight hours, and twenty per cent. altogether prevented putrefaction. He also proves that glycerin destroys bacteria and prevents the formation of septic poison, though it will dissolve and preserve the septic poison itself.

TREATMENT OF ACUTE RHEUMATISM.

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

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

The dose of the alkalies must be increased until

the acid secretions are neutralized. A very good combination of these remedies is the following:

℞ Sodæ bicarb.	3 iss
Potas. acetatis.	3 ss
Acid. cit.	3 ss
Aquæ	℥ f. ʒ ij

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

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

The patient must be sedulously protected from vicissitudes of temperature, and lie in bed between blankets. The alkaline treatment relieves the pain, abates the fever, and saves the heart by lessening the amount of fibrin in the blood.

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

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

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

TREATMENT IN CASES OF EXCESSIVE LOCHIAL DISCHARGES.

Dr. Hugh Miller, in a clinical lecture delivered at Glasgow, recommends the following prescription in cases in which there is an excessive discharge, accompanied by a relaxed condition of the uterus. He administers one drachm doses of liquid extract of ergot repeated every three or four hours, and

℞ Quiniæ sulph.,	3 ss
Acidi hydrobrom.,	ʒ vj
Aquam ad.,	ʒ ij

Dose, one drachm in aq. ter. in die.

By this method large doses of quinia may be given without causing headache. In septic cases Dr. Miller advises the employment of sulpho-carbolate of potash, in the form of powders, in doses of ten to fifteen grains internally three times a day.

When the discharge is suspended, the treatment consists of turpentine stupes applied over the lower part of the abdomen, with the addition of warm moist cloths, or of sponges, pressed out of hot water, and applied to the external parts. In special cases, which require an antiseptic plan of treatment, Dr. Miller makes use of a solution of thymol, one part to five hundred parts of water, or, better, three grains of thymol in an ounce of eau de Cologne. This mixture, which has a pleasant and rather refreshing odor, is simply sprinkled over the napkins before they are used. In severe cases, with a putrid odor, a solution of permanganate of potash, injected with Higginson's syringe, provided with a vaginal portion, is made use of; the injection of the fluid is continued till it returns unaltered in color. In all cases where the discharge is excessive, tincture of arnica is employed; the tincture is used in the proportion of one teaspoonful to a cupful of water; it acts as a mild astringent and disinfectant.— *Practitioner.*

TREATMENT OF CHOREA.

Dr. Thomas B. Peacock, in the recently issued volume of St. Thomas's Hospital Reports, in the concluding portion of a report on cases of chorea, thus speaks of the treatment of the disease:

In a large proportion of cases of chorea there is evidence of disorder of the general health and of the digestive organs, the tongue being furred and the bowels confined. When this was the case a purgative was usually first prescribed, such as a calomel and rhubarb powder, or some blue pill and rhubarb, and this was combined with the stomachic mixture (a cold infusion of rhubarb and gentian with-soda and ginger) and this treatment was continued till the symptoms of disorder of the digestive organs subsided. In some cases under this treatment, the choreic movements almost wholly disappeared. In others they were greatly relieved, and the patient was then put upon a tonic course of treatment, quinia and iron with cod-liver oil and a nutritious diet, and an allowance of wine. In others, when the tongue became clean, but the choreic movements still continued, nervine tonics were used; if the patient was pallid and anemic the chalybeate remedies were generally first employed, preference being given to the saccharine carbonate of iron, in doses of five, ten, or twenty grains, three times daily. In other cases citrate or sulphate of iron was given. If, after a fair trial of this, there was little or no obvious improvement in the state of the patient, sulphate of zinc was prescribed, in doses of one or two grains, three times daily, and the dose was increased by one or two grains twice a week, till sickness or nau-

sea was produced, or till the symptoms subsided.*

Not unfrequently the zinc was first given, and either remedy was replaced by the other, or by the liq. arsenicalis, if no satisfactory improvement was seen at the end of a week or fortnight. The amendment is often very gradual, and seems rather to accord with the improvement in the general health of the patient than to follow quickly after the use of the remedy. A very good test of the advantage of the treatment is afforded by the state of the pupil; generally, when the symptoms are very active, it is large, and shows little or no action under the stimulus of light, but, as the symptoms subside, it diminishes in size, and is much more readily affected by light.

The movements are occasionally so constant and severe that the patient gets little or no rest at night, and so becomes rapidly exhausted, and the back is apt to chafe and bed-sores to form, and indeed it is in this way that the cases generally prove fatal. It becomes, therefore, of great importance that the patient should be quieted, and anodynes are required for this purpose. I have generally preferred to give Dover's powder, frequently in combination with henbane, either at night or at intervals during the day. Sometimes morphia has been used in a similar way, and occasionally it has been employed hypodermically; and more recently chloral has not unfrequently been given at night.

The use of the shower bath, either cold or tepid; or, when the patient is timid, of ablution with tepid or cold water, is often of use in effecting a complete cure after the active symptoms have subsided; and when the patient becomes prostrated nutritious food and wine must be given; and I have sometimes seen great advantage from the use of nutritive enemata with wine, where the patient was becoming rapidly exhausted and could not take an adequate amount of food by the mouth. In one very severe case, in which the skin was excessively dry and harsh, great relief was obtained by the use of the warm bath, followed by the inunction of warm oil.

CASES OF ABNORMALLY HIGH TEMPERATURE.

A late number of the *British Medical Journal* contains a report by Dr. Donkin of eight cases of abnormally high temperature, all but one in females, and none proving fatal. Pain was a prominent symptom in all. An abbreviated statement is subjoined.

- No. 1, 111.6°; convalescing from enteric fever.
- No. 2, 108°; no organic lesions; ovarian pain.
- No. 3, 115.8°; great abdominal pain and excitement.
- No. 4, 111°; convalescing from enteric fever.
- No. 5, 113°; enteric fever and double pneumonia.
- No. 6, 112°; synovitis. This was the only male.
- No. 7, 112°; painful stump, with necrosis.
- No. 8, 117°; pyonephrosis.—*Buffalo Medical and Surgical Journal.*

* The zinc appears to be more efficacious when the dose is rapidly raised:

OFFICIAL ACCOUNT OF TYPHOID OUTBREAKS AT LENNOXVILLE.

The local Committee of Management of Bishop's College, Lennoxville, in publishing the following report of the Medical Commission, appointed to examine into the causes of the recent outbreak of typhoid fever, deem it right to give a short statement of the first and subsequent appearances of the disease, and the steps taken by them in the emergency.

Early in the spring term of 1880 two boys from the United States were taken down with pneumonia, the disease having shown itself almost immediately after their arrival at school. These boys were attended by Dr. Austin, the medical officer of the school, and by a physician from the United States. They recovered after a protracted and dangerous illness. No other cases of illness occurred in either college or school during the whole of the first term of 1880.

In the month of May a bad smell was noticed by Dr. Lobley, the Principal of the College, in the College building—which was found to emanate from the drain of the night water closet—and was caused by an inflow of water from outside of the building. An examination disclosed the fact that this drain discharged into the ground some few feet from the main barrel drain or sewer. Repairs were instantly made and disinfectants in large quantity applied, and the whole work, which took only a very few days to complete, was finished by the 22nd May.

It should be here stated that the rebuilding of the college after the fire, when the night water closet was constructed, was under the supervision of a competent architect, Mr. Nelson of Montreal, and that a clerk of works of good reputation, Mr. Richard Richards, was employed to oversee the work. Had Mr. Richards done his duty this gross neglect on the part of the contractor could not have occurred. At the end of May one of the boys in the school was taken ill during a time of intensely hot weather. Dr. Austin reported the case as one of sunstroke, not severe. When the boy was recovering he was called into Montreal by his father, and the medical man there discovered symptoms of typhoid fever about the case. The Committee was, however, not informed of it, and even if they had been, it would presumably not have created any anxiety in their minds as it was deemed a very mild case. On the 21st June Mr. Cook, a student in the College, exhibited feverish symptoms and went home, but in his correspondence with Dr. Lobley he made no allusion to typhoid fever. On the 24th June the college and school broke up for the holidays, and with the exception of the cases mentioned all, both students and boys, appeared to enjoy robust health. The usual games had gone on, and the severe mental strain of the examinations had passed off without any appearance of illness.

Somewhere about the 10th July news came of

the illness of Mr. Gibb, a student of the college, suffering from typhoid fever, and soon afterwards his death was announced. Almost simultaneously news of the illness of several school boys and one or two of the students reached the college. Alarm was felt at once, and the Committee was called together without delay. On the advice of Dr. Austin it was determined to reconstruct the whole drainage system, which on examination was found to be defective, and the advice and active assistance of Mr. Walter Shanly, C. E., was sought for and freely given. At the request of the corporation of the college, which was called together in the emergency, Dr. Godfrey, of Montreal, who happened to be in the neighborhood, made an inspection of the drainage system, and suggested some modifications, which were adopted. Dr. Godfrey was assisted in his investigation by Dr. Robertson, of Lennoxville, at the request of Principal Lobley. At the time of the reconstruction of the drains, the prevalent idea was that the trouble was due to the defective drain above mentioned, but the Committee found great difficulty in coming to any conclusion on the subject owing to a difference of opinion amongst medical men, some of whom declared that the disease might be dormant in the system during three or four weeks at a maximum, whilst others said that as many months might pass before it would be developed.

During the progress of the drainage work the Committee determined on the removal of the wood-sheds and latrines from the centre of the great college yard, where they had long been an eye-sore, and it was on this ground alone that they were removed. This involved the filling up of the cesspit, which was very thoroughly done, new earth and disinfectants being thrown into the space. About the same time the Chairman of Trustees urged that the well water should be sent to Montreal for analysis. This water was freely used by the whole institution.*

The following gives the result of the analysis by Dr. Baker Edwards:—

BEAVER HALL HILL, Montreal, Aug. 19, 1880.
ED. CHAPMAN, ESQ., M.A.,

Bishop's College University, Lennoxville.

SIR,—I hereby certify that I have analyzed the sample of water which you forwarded to me from the well supplying the college and school, and that I have very carefully examined the water, both chemically and microscopically, for any dele-

*In an article published in the January number of the *Canada Medical and Surgical Journal*, signed by Dr. Worthington, it is stated that he some years ago was one of a commission, consisting of Dr. Johnston, of Sherbrooke, Dr. Robertson, of Lennoxville, and himself, to examine the sanitary condition of the then school, and that he at that time condemned this well. The report of this Commission contains no allusion whatever either to this well or to any water supply.

In this respect, as in many others, the doctor has drawn on his imagination,

terious matter, and find it *perfectly pure and wholesome, and well adapted for drinking purposes*. The water contains *per Imperial gallon*:—8.4 grains of total solid matter; of which 7.7 grains are mineral; 0.7 grains are organic.

The mineral matter consists of carbonate of lime and magnesia, with a trace of iron and alumina and the usual saline chlorides of sodium and potassium.

The hardness of the water (as indicated by "Clarke's test") is 5°, which ranks the spring as a "*soft water*."

The organic matter present is of a simple vegetable character, and free *albuminous, nitrogen and nitrates*.

On the whole you may be satisfied that your water supply is not only pure but excellent.

I have the honour to be,
Your obedient servant,

J. BAKER EDWARDS, D.C.L., F.C.S.,

Professor Practical Chemistry and Public Analyst,
&c.

This analysis satisfied the Committee, who, not being scientific chemists, did not know then that strong doubts existed as to whether the origin of typhoid fever could be detected by analysis.* Under these circumstances with a new drainage system supposed to be perfect, and with the water in use pronounced by a scientific analyst to be "not only pure but excellent", the college and school re-opened in September.

In October, owing to the unprecedented drought, this well, which had never been known to fail, although used for over twenty-five years, ran dry. The water, however, soon came in again, on the setting in of the rains of autumn. In the beginning of November the pump at the well was frozen, and thenceforward the use of the water ceased.

During the whole of this time the health of the college and school seemed excellent, and the athletic games, principally foot-ball, were vigorously prosecuted. In the end of November several cases of typhoid fever made their appearance. The Committee were startled, and again sought advice. The water was again sent in for analysis, and this time not the well water only but that used for culinary purposes, obtained from a reservoir in the woods, as well as the water used by the cows at the farm houses whence the milk was obtained.

The following is the second analysis of Dr. Baker Edwards:

*After the completion of the work it came to the knowledge of the Principal that the results of Dr. Baker Edwards' analysis were called in question by Dr. Worthington, and that he had expressed an opinion that the well ought to be closed. But so much reliance did the Principal place upon the report of the Public Analyst that he took no action upon this.

(COPY.)

MONTREAL, 12th December, 1880.

R. WHITE, ESQ.

DEAR SIR,—I have carefully examined the three samples of water from Lennoxville as minutely as the limited quantity permitted, and can safely say that none of these are polluted by sewage or organic germs likely to cause sickness. No. 1 is the least pure and contains much suspended matter, and I should not consider it fit for drinking purposes, unless filtered. No. 2 is a good spring water, free from organic nitrogen, and containing 8.40 grains of solid mineral matter to the Imperial gallon, this corresponds with the water I analyzed in August last, and it is in every respect an excellent drinking water. Sample No. 3 is less pure, but is a perfectly wholesome water, and sample No. 4, town supply, shows more organic matter than either of the other samples. If the sample No. 1 is in use I should like to examine a larger quantity, say one gallon, as, from the presence of a rat's hair, possibly the bottle was not clean, this water is also turbid with suspended clay.

No. 1. Sample taken from tank in stable at Lunden's farm. No. 2. Sample taken from well in court yard. No. 3. Sample taken from tank in school from spring, brought in by gravitation. No. 4. Sample is the supply used in the city of Montreal from the Water Works.

I am, yours most truly,

(Signed,) J. BAKER EDWARDS, D.C.L.,
Public Analyst, Montreal.

Being completely puzzled at the cause of this second outbreak, the Chairman of Trustees visited Montreal, and called a meeting of gentlemen friendly to the college, amongst whom were the medical men who kindly accepted the duty of examining and reporting on the whole matter. The thanks of all who take an interest in Bishop's College and school are due to these gentlemen for their patient investigation of the case, and the Committee, while regretting that this investigation has failed in discovering the origin of the outbreak, have yet scrupulously followed the suggestions made from time to time by the Medical Commission, as well as the direction of the Sanitary and Drain Inspectors of Montreal, who also kindly lent their valuable assistance.

It is because these suggestions cannot be fully carried into effect until the summer that it has been found necessary to open the school temporarily at Magog, whilst the work of the college is going on as usual at the Village of Lennoxville in other buildings away from the college.

The annexed report of the Medical Commission is now published at the earliest possible date after its receipt. The delay in furnishing this report is attributable to the desire to leave no stone unturned in the investigation of this case.

In conclusion, the Committee of Manage-

ment believe that the sympathies of all right-minded men will be with them in this trying emergency. The Trust which they have undertaken—that of carrying on a College and School—at great personal sacrifice of time and money, with the sole desire of doing their duty to the country in which they live, and to the Church of which they are members, has been an arduous one, albeit a “labour of love,” and they cannot but express their deep regret that the editors of a Scientific Journal should have been led to form one-sided conclusions, when they at the same time acknowledge that they have had only an *ex-parte* statement before them.

J. A. LOBLEY, D.C.L., Principal,
A. C. SCARTH, M.A., Prof. Educ'l. History,
R. W. HENEKER, D.C.L., Chairman of Trustees,
ED. CHAPMAN, M.A., Bursar,
HENRY ROE, M.A., Professor of Divinity,
Members of the Committee of Management.

N.B.—The name of the Rector of the School is omitted on account of his necessary attendance at Magog.

To the Chancellor and Corporation of the University of Bishop's College, Lennoxville.

GENTLEMEN,—We the undersigned, having been appointed a commission to inquire into the origin and spread of an outbreak of typhoid fever which occurred during the summer and autumn of 1880 at Bishop's College and Grammar School in Lennoxville, beg to submit the following report:—

We personally inspected the Institution on the 19th and 20th December last, and at our request the College authorities invited Mr. Radford, the Health Inspector, and Mr. Lowe, the Drain Inspector, of the City of Montreal, to carefully examine the drainage and ventilation of the premises. These gentlemen have kindly complied with the request, and have submitted to us an elaborate statement of their investigations, together with a number of valuable suggestions, which we have embodied in this report.

For the sake of brevity and convenience, the subject will be considered in sections, as follows:

Situation.—The School and College buildings stand upon an eminence at the junction of the Massawippi and St. Francis Rivers, near the village of Lennoxville. The soil is generally light and gravelly, the situation open and airy, and admirably adapted for a large public institution.

Medical history of the Institution in reference to Typhoid Fever.—We are informed that ten or twelve years ago a boy contracted typhoid while at school, but no other cases occurred; from that time to the re-opening of the College and School after the Christmas vacation in January, 1880, we do not find anything in this connection calling for special comment, beyond the fact that in the summer vacation of 1875 one of the boys died of typhoid fever in Lennoxville, but the disease was evi-

dently contracted after leaving school, in the house where he was visiting. In February, 1880, shortly after the re-opening of the School, two cases of illness of a somewhat suspicious character occurred, in both instances the boys were ailing when they returned to school, and one of them continued ill for about two months; unfortunately, we have been unable to come to a positive conclusion with reference to the precise nature of these cases. On the 18th of May a drain in the quadrangle was open for repairs; one of the boys descended into it, and shortly afterwards he developed typhoid fever at his home in Montreal. In July, after the School and College had closed, reports began to come in of other cases. Altogether, we have been able to trace twelve cases in this epidemic—five from the College and seven from the School. During the months of August and September, the sanitary condition of the Institution was investigated, and found to be very unsatisfactory. A new system of drainage was substituted, new latrines built, and many improvements made under the directions of a competent engineer. The reasonable hope was entertained that no further trouble would occur. On September 22nd the School re-assembled. During October and the early part of November the health of the pupils was excellent, but towards the end of the month six boys and one resident student were taken ill with the fever. About the middle of December, a servant boy employed about the kitchen and dining-room was also attacked. Two other cases that developed the fever at their own homes have been reported, making in all 10 cases during the second epidemic. There was nothing in the distribution of the cases through the College and School which could favor the idea that the disease originated in any special quarter of the Institution.

Internal Economy and Commissariat.—The boys and students take their meals together in the dining-hall; in other respects the institutions are separate and distinct.

Milk Supply.—We visited and inspected the dairy farm, and while we found no reason to ascribe the outbreaks of typhoid to any contamination of the milk, we would draw attention to the dangerous proximity of the well, privy and stable and to the faulty position of the tank, which is at present below the level of the stable floor. These conditions, in the event of any cases of typhoid occurring at the farm-house, would prove a ready means of spreading the disease.

Water Supply.—The water supply of the Institution is derived from (1) a well in the quadrangle, 19 feet in depth, and, at the time of our visit, containing 2ft. 4in. of water. On account of its supposed purity, this water was used almost exclusively for drinking purposes. During the exceptional drought of last season this well ran dry, and was not available for general use until some time after the opening of the School. The well is situated at the lower part of the quadrangle, at a distance of 90 feet

from the old latrines, the soil between being of a light gravelly nature, and the dip being towards the well. (2) A spring in the Beaver Meadow, the water of which, after passing along in an open stream for some distance, is collected in a tank and conveyed thence through perforated logs to a large reservoir in the School building, whence it is distributed to the various parts of the establishment.

Analysis of Water.—The analysis of water was made by Professor Croft of Toronto; the following is a copy of his report:

Report on Three Waters from Lennoxville.

No. 1, water from cistern in school.

No. 2, water from well in quadrangle.

No. 3, water from Duffield's well.

It did not seem requisite or desirable to make an accurate quantitative analysis of each specimen, as the mineral constituents, unless present in abnormal quantities, could have little or no effect on their medicinal properties, and no chemical test can recognize typhoid germs. It appeared desirable to test the waters qualitatively as to their constitution, as to presence of ammonia or ammoniacal salts, chlorides, and organic matters, also for magnesia. By an accident from frost and other causes, the first analyses of No. 1 were untrustworthy, and had to be repeated.

Ammonia.—Each test was repeated two or three times so as to avoid error, and in cases of distillation, a quantity of pure water was first distilled to wash out all ammonia from the vessels, and in neither of the waters could ammonia be detected directly—*i.e.*, in the water as taken from the bottles. In first products of distillation—No. 1, faintest trace; No. 2, decided trace; No. 3, less decided trace. In no case very large; most so in No. 2.

Chlorine.—Probably as chloride of sodium—No. 1, scarcely perceptible trace; No. 2, decided, so much so as to induce rough determination, about 12 grains per gallon of chloride of sodium; No. 3, decided, but less than in No. 2.

Sodium.—Probably as chloride—No. 1, faint trace; No. 2, very decided; No. 3, decided.

Sulphuric Acid.—As probably sulphate of lime was present—No. 1, very faint trace; No. 2, decided, but not large; No. 3, about the same as No. 2.

Lime.—As for above.

Magnesia.—No. 1, scarcely perceptible; Nos. 2 and 3, rather more, about equal.

All waters gave a very slight precipitate on boiling, consisting of carbonates of lime and magnesia, with an infinitesimal trace of iron.

<i>Solid contents.</i>	5,000 grs.	70,000 grs.	1 gal.
No. 1, first experiment,	6.1	85.4	
No. 2, "	6.2	86.8	
No. 3, "	6.6	92.4	

These experiments were repeated, and the numbers assigned represent the mean of several experiments. They (the residues) all became blackened very much on heating, Nos. 2 and 3 especially shewing presence of much organic matter. I have not been able to ascertain the exact quantities, but may say that 2 and 3 are very objectionable, from the presence of organic matter.

I have a letter from Dr. Baker Edwards, who analysed one of these waters and found only 8.4 grains in a gallon of 70,000 grains. That cannot have been one of the waters submitted to me, unless in the hurry of writing Dr. E. has placed the decimal point wrongly. The 8.4 corresponds closely with my 85.4. Can there be a mistake here?

I think the waters are all bad, as containing too much organic matter. I have had several cases of similar waters to examine in Yorkville and Toronto, in or from houses where sickness prevailed—one case bad typhoid. They all exhibited the same properties—chlorides in excess, magnesia, traces of ammonia, and organic matter. In one exceptional case I denounced the well water. There has been no illness to speak of in the School since the change.

Your obedient servant, HENRY H. CROFT.

P.S.—I have other confirmatory experiments going on, but send this as report on results obtained up to this time. The numbers obtained by analysis made in a hurry may not be absolutely correct; moreover, an error in 5,000 grains has to be multiplied or divided by 14 for 70,000.

H. H. C.

Suggestions with regard to the water supply:—

- 1.—That the well in the quadrangle be closed.
- 2.—That iron distributing pipes replace the wooden logs in the quadrangle.
- 3.—That, if possible, the large receiving tank be removed from its present position and located at the spring, and that the water be conveyed thence to the school reservoir through iron pipes.
- 4.—That the connection at present existing between the reservoir and the School drain (flush-pipe) be cut off, and that the reservoir be regularly cleaned and inspected.

Privies.—About the centre of the quadrangle the old latrine was situated; it was a square pit about 4 feet in depth, lined with unmortised planks, which permitted the liquid portion of the faecal matters to ooze freely into the surrounding soil. In August last the latrine was abolished, the contents were carted away, and the pit filled with earth and lime. A few feet from the latrine, between it and the well, we caused a pit to be dug a depth of six feet, and we found the loose gravelly soil to be impregnated at various depths with organic matter. To replace the latrine, closets were constructed behind the gymnasium, but not

upon a plan which could prove to be either effectual or satisfactory.

Suggestions with regard to the privies:—

- 1.—That the closets be removed from such close proximity to the gymnasium.
- 2.—As we are of opinion that for outside privies the earth system, if properly carried out, would be preferable to any other, we would suggest that every precaution be taken to secure its thorough and systematic application.

Drainage.—The old barrel drain which passed under the corner of the school and chapel was imperfect in construction, and ill-adapted for the purposes required; it was removed in August, and replaced by two 12-inch vitrified tile drains, one for the College and the other for the School. These drains united below the College building, and emptied into the Massawippi, well out in the stream. The river below this point is consequently contaminated with sewage. The ventilation provided for these drains is insufficient and unsuitable, and in addition to the recommendations contained in the report of Messrs. Lowe and Radford, we would suggest the construction of a proper ventilating shaft in the main drain, near the junction. We append the careful and minute report of these gentlemen, and concur in their recommendations.

Subsoil Drainage.—Owing to the faulty construction of the old barrel drain and the latrine, the soil of the quadrangle must have become contaminated with thier fluid contents. In order effectually to purify this quadrangle, we would recommend that a thorough system of subsoil drainage be adopted. The present well, which probably drains a considerable portion of the quadrangle, should be utilized by carrying a tile drain from the bottom.

It is a well-known scientific fact that the atmospheric air penetrates the soil, according to its character, to an indefinite depth, and circulates in every direction with a rapidity of motion dependent upon various surrounding conditions, one of the chief of which is variation of temperature. This air is known as ground air. The temperature of the cellars and basements, especially where furnaces are used, is considerably higher in cold weather than that of the outside soil, consequently the flow of ground air will then be directed towards these cellars and basements. If the soil be contaminated in any way, so will be, to a greater or less extent, the ground air contained in it. In this way it is very probable that polluted ground air from the quadrangle is drawn up through the imperfect floor of the basement and circulated throughout the building. In order to prevent, as far as possible, the entrance of this air, we would recommend a thorough covering of the cellar and basement floors with some suitable impervious material, such as concrete or asphalt. The

walls, as high as the level of the soil, should be protected in a similar manner.

It is now held by the best authorities that imperfect sanitary conditions cannot of themselves originate the typhoid poison, but when once the specific germ has gained access to a soil suitable for its development, it spreads and multiplies with great rapidity. The conditions most favorable for its development are chiefly those produced by defective drainage and ventilation. In this instance, whence the poison came, or by whom introduced, we have been unable definitely to ascertain; but, whatever may have been the precise origin of the disease, the condition of the drainage and water supply during the latter part of May was most favorable for the development and diffusion of the typhoid poison. The close proximity of the well to the latrines favored the contamination of the drinking water; and to the use of this water, more than to any other single cause, we attribute the spread of the disease. In this opinion we are strengthened by the result of Professor Croft's analysis.

From the foregoing it must be evident that, in order to eradicate the disease, it is absolutely necessary to secure for the institution thorough ventilation, perfect drainage, and a pure water supply.

We cannot conclude this report without bearing our testimony to the courtesy and willing assistance rendered us at all times by the School and College officials during the prosecution of our investigations, and to the evident desire on the part of the authorities to carry out all reasonable and necessary reforms.

We have the honor to remain,
Gentlemen,

Your obedient servants,

T. SIMPSON, M.D.

WM. OSLER, M.D.

J. C. CAMERON, M.D.

MONTREAL, 21ST January, 1881.

RULES FOR INJECTION IN GONORRHEA.

In acute gonorrhœa before all things we must insist upon the patient wearing a suspensory in order to prevent traction on the testes. He should take no beer or champagne or any drink which contains much carbonic acid in the nascent state, as this gives rise to dysuria. Meat in the evening and late meals should be avoided, as favoring the occurrence of nocturnal pollutions, aggravating the patient's condition. The same may be said of the sitz-bath taken late in the evening. During the acute stage, if there still exist severe pain, especially after passing urine, and stabbing pains at the posterior part of the urethra—one of the earliest symptoms of gonorrhœa—we may confidently begin the treatment by the injection of a

very weak solution of an astringent metallic salt. After the first effective injections the pains are considerably diminished, the urine is passed more easily, and the slight fever which is often present disappears. The relief of the pain may also be hastened by tepid sitz-baths. It is an interesting fact that the patient, who at the beginning of the gonorrhœa can only pass urine amidst the severest pain, is able to empty the bladder while in the bath with the greatest ease and comfort. With regard to the injections they should at first be as weak as possible, so that they may never act as caustics, but only as astringents. The substance from which Prof. ZEISSL has derived the best results is the permanganate of potash, of which he prescribes two centigrammes in 200 grammes of distilled water, thrown in four times daily by means of a caoutchouc syringe, care being taken to prevent the entrance of air, the presence of even a small quantity of which in the urethra suffices to induce severe dysuria. If this occur, or pains arise in the testes, the injections must be suspended, and the symptoms suitably treated. As already stated, it often happens that after a few injections the pain diminishes, and all traces of the gonorrhœa frequently disappear after only a week's employment of the permanganate. If however, after using this very weak solution for a week, no essential improvement has taken place, it may be strengthened by a centigramme; but Prof. ZEISSL never goes beyond fifteen centigrammes in the 200 grammes of water. A rule to be observed is not to continue the same injection for too long a time, as the urethra becomes accustomed to the presence of the medical agent, the further employment of which is then useless, and a weak solution (thirty centigrammes to 200 grammes) of sulphate of zinc should be substituted, gradually increasing the strength to five decigrammes. If this does not succeed, Prof. ZEISSL then resorts to the employment of insoluble bodies, such as bismuth, kaolin, or the acetate of lead. Injections containing these suspended bodies must be well shaken, so as to cause a uniform distribution of the precipitate in the urethra. This powder may remain in the urethra for a long period—and at all events until the next discharge of the urine; and when it is forced into the glandular orifices of the prostate it often remains there for a fortnight longer. This circumstance explains the beneficial action of these suspended substances, as they remain in close and prolonged contact with the membranous and prostatic portions of the urethra and with the prostate itself—the parts in which the catarrh exhibits the greatest obstinacy.—
Weiner Med. Woch.—Lea's Abstract.

HINTS ON SEA-BATHING.

August is the month for sea-bathing, which, if properly managed, is one of the most healthful and invigorating of exercises, though its good effects are often neutralized through ignorance or

carelessness. The following extracts from Dr. J. H. Packard's *Sea-Air and Sea-Bathing* (one of the "American Health Primers") furnish a very good summary of rules for the guidance of the unprofessional reader in this matter:—

How Long to Bathe.—It is quite absurd to lay down positive rules as to the time people should remain in the water, since they do not carry watches in with them. And any day's experience on the beach in the season will show a great many bathers sporting in the water for half an hour or an hour, and even longer, without any perceptible ill effect. It is quite a common practice among the young to go in, take a bath, come out and lie on the sand, and go in again, perhaps a number of times. The powers of endurance vary greatly; and it is well known that swimmers have sometimes remained in the water for many consecutive hours without harm.

There can, however, be no question that for sanitary purposes, and as a matter of prudence, it is better to take the bath, and then to leave the water for the day.

What is wanted in ordinary sea bathing is to carry the chilling of the body only so far as to promote the subsequent reaction. The first sense of cold on entering the water is soon followed by the feeling of returning warmth; and this continues for some little time, to be again succeeded by a sense of chilliness. This second cooling is accompanied by a diminution in the activity of the circulation, shown especially by blueness of the lips or finger nails; and this should *invariably* be regarded as a signal for leaving the water *at once*. To wait until the teeth chatter, and the skin of the fingers becomes shriveled like those of a washerwoman, is in a very high degree imprudent.

For those who have young children or invalids under their charge, and who are able to observe and regulate the exact time of their stay in the bath, it may be said that this may be according to the condition of the skin, somewhere between two and fifteen minutes. It is always safe to err on the side of prudence, and to cut the bath needlessly short rather than to prolong it at any risk.

Perhaps it need hardly be said that the colder the water is the less time should be spent in it. When the air and the water are both cold, the duration of the bath should be correspondingly diminished. This condition of things increases the danger of shock and of insufficient reaction.

One should enter a sea bath comfortably warm, and exercise actively during the stay in the water. The temporary chilling of the surface will then give place quickly to a glow, which may be kept up or even increased by thorough rubbing.

How to Bathe.—There is very seldom opportunity for diving into the sea, and only a very small number of bathers are expert enough to do it. The best plan is to walk or run rapidly into the water, wading out at once far enough either to dip the whole person head and all, or to allow a wave to break over the bather. Some like to have a

bucket of sea water dashed over them before going in. Once in the water, and thoroughly wet, one need only keep moving, occasionally going under a wave, as long as the water is agreeable, and there is no sense of chilliness.

THE ORIGIN OF TETANUS.

The *Brain*, for January, 1880, contains an article by Surgeon Major J. J. L. Ratton, in which he enunciates the proposition that tetanus is a single disease; that it begins in persistent peripheral nerve irritation, and ends in organic molecular and functional disturbance of the medulla. The peripheral nerve irritation may or may not be traumatic, but is invariably the cause of the disease; so that the term idiopathic tetanus should be disused. The above conclusion is arrived at after exhaustive arguments have been adduced in proof of the five following points: 1. Peripheral nerve irritation is a cause of tetanus. 2. Peripheral nerve irritation is present in all cases of the disease. 3. It produces eventually the group of symptoms known as tetanus. 4. It explains the facts of the morbid anatomy of the disease. 5. It guides the treatment of the disease, and is proved by its success. The great bulk of cases of so-called idiopathic tetanus are either puerperal, menstrual, or the result of worms. That case of idiopathic tetanus in which peripheral nerve irritation could be excluded as the cause must be absolutely free from disease; the author cannot imagine that such a case ever existed. His view of the pathology of tetanus is that in the first stage of the disease (that of continued nerve irritation reacting upon the medulla and originating tonic spasms), up to a certain point there is no morbid change in the cord, and consequently there would be no evidence of disease. At this period division of the afferent nerve, by cutting off the source of irritation, arrests the symptoms. Afterward, continued irritation, exciting the reflex function to an inordinate degree, causes hyperæmia with molecular changes, and frequently inflammation. Here there may or may not be visible changes, but these will be hidden by molecular changes. Pathological facts fit in exactly with these views. Sometimes no changes are found, sometimes microscopical changes, and sometimes evidences of inflammation of the medulla and upper part of the cord. The treatment by amputation, or section of the afferent nerve is only efficient up to a certain point; when molecular changes have taken place in the medulla it is useless. Division of the nerve in the second stage may help, but does not cure the disease. Something more is wanted—some powerful wrench to the nervous system that will alter the morbid molecular arrangement of the parts, or act as a revulsive or counter-irritant. Stretching a large nerve trunk (e.g., the sciatic), and making traction on the cord, have been tried and followed by marked success. The drugs used, and which

have justified their use in this disease, are just those which are known to diminish the reflex irritability of the cord. The ice bag to the spine, leeches, blisters, and plasters, to the same, all testify to the universal opinion acted upon, if not avowed. The tetanus is a disturbance disease of the reflex unctio nfe of the cord.

BILIOUS HEADACHES.

When patients are very bilious, and a conjunctiva yellow a good cholagogue purgative will excite the action of the liver, and drain away a copious quantity of bile. Form:

℞. Hydr. subchlorid; gr. iij
Pil. colic. co., gr. vj
Ext. hyoscyami, gr. ij

Misce et divide in pilulas ij. To be taken at bed-time occasionally.

A mixture of soda and bismuth with sal volatile will be useful to relieve flatulency and acidity.

Form:

℞. Sodæ bicarb.,
Bismuth subcarb.,
Pulv. acaciæ, āā 3j
Spt. amm. arom., ʒ ij
Syr. zingib., ʒ iij
Aquæ puræ, ad., ʒ viij

Misce. Two table spoonful three times a day, half hour before food.

If the headache is accompanied with atonic dyspepsia, and there is a clean tongue with weight and oppression at the epigastrium, the nitromuriatic acid will be found serviceable, before meals or three times a day. Form:

℞. Tinc. nuc. vom., ʒ j
Acid. nitr. dil., ʒ j
Acid. hydrochl. dil., ʒ ij
Tinc. aurant., ʒ vj
Aquæ puræ, ad., ʒ vj

Misce. A table spoonful in a wine glassful of water three times a day.

If flatulency is very troublesome, bismuth with nux vomica, and, if there is constipation, a morning pill of aloes, nux vomica, and belladonna, or one consisting of aloes, capsicum, quinine, and ipecacuanha, are indicated. Forms:

℞. Ext. aloes. barb., gr. ¼
Pulv. ipecac., gr. j
Pil. rhei comp., gr. iij

Misce et fiat pilula. To be taken daily before dinner.

℞. Quinæ sulph.,
Ext. aloes aquos., āā gr. xij
Pulv. capsici,
Pulv. ipecac., āā gr vj
Glycerini, q. s.

Ut fiant pilulæ xij. One to be taken daily before food at midday.

—Dr. Day on Headaches.

OXALATE OF CERIUM AS A COUGH REMEDY.

Dr. Andrew H. Smith, chairman of the Committee on Restoratives, New York Therapeutical Society, at the meeting held April 9th, 1880, reported cases illustrating the different degrees of success obtained in the use of the oxalate of cerium in the treatment of cough. The report was based upon eighty-four cases furnished by reliable observers.

Dr. Cheesman had used the remedy in hospital practice from July 1st to November 1st, 1879, allowing it to take the place of all sedatives, including opium, in the daily average of *phthisis* patients. It was uniformly administered in the form of dry powder, and notes were taken in 69 trials. In 39, marked relief followed; in 19, the cough was moderately relieved, and in 11 no relief whatsoever was afforded. The 11 cases where the remedy was inefficient, 9 were in the third stages of the disease, and in 8 the Philadelphia preparation was used. In all the cases where the cough was relieved Merck's oxalate of cerium was used. The drug was given, as a rule, two or three weeks, and often intermitted to test its efficacy. Five grains were given on waking in the morning and at bed time as the average dose; occasionally a dose of five grains in the middle of the day was given with marked benefit. Dr. George Bayles also reported his observations; in addition to the benefit derived in phthical patients he had experienced benefit from its use in whooping-cough. It produced no bad effects on the stomach.

The conclusions reached by the committee were the following:

1. Oxalate of cerium could be safely administered in doses of 10 grains, three times a day, for many days in succession.
2. The only unpleasant symptom, when so used, was slight dryness of the mouth that appeared after several days.
3. It was probably the most efficient when administered dry on the tongue.
4. Its effects were not produced until two or three days after its use was begun, and lasted two or three days after the remedy was discontinued.
5. It was most efficacious in the treatment of chronic cough, and the initial dose should be 5 grains.
6. In the majority of cases it had not proved an efficient cough medicine for any considerable length of time, but could be regarded as a valuable agent to be employed in alternation with other remedies.
7. It did not disturb the stomach; on the contrary, it relieved nausea and improved digestion.
8. Different preparations upon the market were not equal in value; and when success was not obtained by one, another should be substituted.—
Medical Record.

GASTRIC ULCER.

By HERBERT W. LITTLE, M.D., New York.

As ulcers of the stomach, which give definite symptoms during life, are not of common occurrence, with the exception of perforating ulcers, of which the termination is fatal, it will be interesting, perhaps, to read the case given below. This is presented for the following reasons, viz.: *first*, on account of the great obstinacy of the case; *second*, the controlling influence of ingluvin; *third*, the tolerance of rectal alimentation.

The obstinacy of the case will be perceptible farther on.

As far as the beneficial effect of ingluvin in this instance went, it certainly was, apparently, very satisfactory; but, whether or not the ulcer was cicatrizing at the time it was administered, and the improvement was a mere coincidence with its administration, or whether or not the improvement was due directly to the effect of the remedy, is hard to say. In either case, improvement promptly followed the use of the remedy.

The patient was supported exclusively by rectal alimentation for three consecutive months, proving the tolerance and absorption of enemata, the rectum acting as a second stomach. This would seem to show the fallacy of Dr. Tully's statement that, inasmuch as there are no lacteals in the colon and in the rectum, the idea of introducing nourishment into the system by means of *enemata nutritiva* is a perfect chimera. It seems, as Bodenhamer says, that the nutritious elements are taken up by the absorbents, and conveyed by them to the *receptaculum chyli* or *reservoir of Pecquet*, and thus soon find their way into the economy, and produce their assimilative and nutritive effect. Bodenhamer, in his excellent treatise on rectal medication, further states that there are lacteals both in the colon and rectum, and that the late and lamented Prof. Horner, of Philadelphia, stated, from minute researches, that the office of the follicles of Lieberkühn is that of absorption, and not secretion. Therefore, absorption takes place principally through the lacteals and follicles of Lieberkühn. In my position as house physician at the Presbyterian Hospital, I have had opportunity to test the tolerance and absorptive powers of the rectum and colon to a considerable extent, both for food and for medicine, and have great confidence as regards their efficacy; and, moreover, am safe in saying that in a number of instances I have seen life saved by resorting to rectal-colonic alimentation.

The patient, a female, aged 36, unmarried, and a seamstress by occupation, came under my observation October 1, 1879, with what was supposed to be gastric ulcer. She stated that she had always been stout and healthy, with the exception of a general peritonitis, which she had two years ago. Her weight when in health was about 160 lbs.

The present trouble began eight months ago with nausea and vomiting after eating; at times she

vomited a little blood. The vomiting had increased so much that for the last two months it had been almost continuous, being excited by the ingestion of food. She knew of no cause for her ailment. She had been from the first under medical care, but had derived no benefit. Almost all the remedies in the materia medica employed for that purpose had been used to check her vomiting, but without avail—*ipsecac*, *opium*, *pepsin*, *bismuth*, *soda*, *oxalate of cerium*, *hydrocyanic acid*, *eucalyptus*, *carbolic acid*, *calomel*, *salicylic acid*, *nitrate of silver*, *Carlsbad water*, *ice*, etc. She was gradually getting worse, having lost twenty-five pounds since the inception of the trouble, and the vomiting still increasing.

When she came under observation she was emaciated and feeble; had not had her menses since July last; bowels constipated; vomited everything shortly after being ingested, not being able to retain either solid or fluid food, although coarse and solid food gave her more distress than fluid; threw up a little blood three or four times. Always felt relieved after emesis had taken place. Complained of tenderness, confined to the centre of the epigastric region, and a burning pain (coming on soon after eating) in the same location. At times she would complain of a dorsal pain or *cardialgia*. No tumor was felt through the abdominal walls. The diagnosis of gastric ulcer was founded on the following symptoms: great tenderness at a localized point in the epigastrium; a burning pain in the same location; vomiting of both solid and liquid food, and always experiencing relief after emesis. As the nausea and vomiting was more severe in an hour or so after eating, it seemed to point to the pyloric end of the stomach as the seat of the disease.

She was given a liquid diet consisting of milk with lime-water and beef-tea, occasionally chewing rare pieces of beef and swallowing the juice. To control the vomiting, powders of subnitrate of bismuth and morphia were administered. This plan of treatment was kept up for five days without any beneficial result, the milk being thrown off as well as the beef-tea. Various remedies were then tried, but still she vomited and retched until everything was thrown off her stomach—even bile, blood, and mucus being expelled. A whitish discharge which had been vomited occasionally was examined microscopically, and found to consist of squamous epithelium and blood-corpuscles, with mucus and extraneous matter. She was then put on enemata of milk, beef-tea, and defibrinated blood. Ice, soda, and subcarbonate of bismuth in twenty grain doses, with blistering over the stomach, were all employed to relieve the retching, but with no amelioration. In fact, all the symptoms were aggravated. The burning pain was getting more intense, the tenderness and vomiting increasing, and now insatiable thirst tormented her, but everything she took to relieve this only aggravated the emesis. As a last resort, *ingluvin* was employed, to be given three times a day. Within a week she felt better. The vomiting was greatly relieved, now occurring but twice a day,

whereas formerly it was almost continuous. The burning, gnawing pain was gradually eased. Improvement rapidly progressed; in ten days the vomiting had entirely disappeared, the tenderness and burning diminishing. The enemata were now discontinued (having been used three months). The patient got out of bed, and thereafter ate three meals a day without any inconvenience. She began immediately to gain flesh, and her menses again appeared. Shortly after she went home in excellent condition, with the ulcer probably cicatrized.

As mentioned above, this case is interesting, partly on account of the long-continued use of rectal injections, showing the value of them in prolonging and saving life. They are of service after operations on and in diseases of the tongue, pharynx, œsophagus, and stomach; after removal of cancer of the tongue, of tumors of the jaw, and in cases of diphtheria, tumors of the pharynx, stricture or obstruction in the œsophagus, tumors of the larynx, pressing upon the œsophagus, or in any disease interfering with deglutition; also in cancer or ulcer of the stomach, gastritis, and in marasmus of children. Of the latter, Dr. G. M. Smith, of this city, had a case, the subject of which was a little girl in a deplorable condition. She was supported entirely by rectal injections, until gradually she was restored to perfect health.

These injections may be used almost without limit, although there is a prejudice against them on the part of the patient. Dr. Austin Flint, in his "Practice of Medicine," mentions three cases which were supported by nutritious enemata. The first was sustained three weeks, the second one month, and the third and longest three months.—*New York Medical Record*.

WHY WE EAT OYSTERS RAW.—Dr. William Roberts, in his interesting lectures on the digestive ferments, states that our practice in regard to the oyster is quite exceptional, and furnishes a striking example of a general correctness of the popular judgment on dietetic questions. The oyster is almost the only animal substance which we eat habitually and by preference, in the raw or uncooked state; and it is interesting to know that there is a sound physiological reason at the bottom of this preference. The fawn-colored mass which constitutes the dainty of the oyster is its liver, and this is little else than a heap of glycogen. Associated with the glycogen, but withheld from actual contact with it during life, is its appropriate digestive ferment—the hepatic diastase. The mere crushing of the dainty between the teeth brings these two bodies together, and the glycogen is at once digested without other help by its own diastase. The oyster in the uncooked state, or merely warmed, is, in fact, self-digestive. But the advantage of this provision is wholly lost by cooking, for the heat employed immediately destroys the associated ferment, and a cooked oyster has to be digested, like any other food, by the eater's own digestive powers.—*London Medical Record*.

ICE TO THE ABDOMEN IN TYPHOID FEVER.

At a recent *séance* of the Société Médicale des Hôpitaux, M. Labbé called attention to the efficacy of ice applications to the abdomen in typhoid fever, complicated or not. He related the case of a young girl attacked with typhoid, whose temperature exceeded 104° , and who appeared at the last extremity, who, under the influence of this treatment, was perfectly cured. M. Labbé claims for this procedure a considerable lowering of the temperature and a notable amelioration of all the other symptoms.

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MONTREAL, FEBRUARY, 1881.

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At a late meeting of the Medico-Chirurgical Society, Dr. Hingston mentioned a case of very rare occurrence. In May, 1867, he had been called by the late Dr. Smallwood to see a French Canadian lady, then aged 63 years, the subject of a large ovarian tumour. He proposed ovariectomy, but the patient declined, but consented to emptying the cyst. This was first done on 13th May, 1867; the quantity removed was four gallons. From that date to the 10th March, 1876, the operation was repeated forty-three times, with an average of four gallons each time. From March, 1876, to August, 1880, she was not operated upon; on 13th August, 1880, $3\frac{1}{2}$ gallons were removed, and on 25th January, 1881, the last time, six gallons were removed. She died from an attack of indigestion, after eating a very hearty supper, on 30th January, at the age of 81 years. The patient continued in perfect health until the day of her sudden death, and was able to walk several miles. The total number of operations was 46, and the quantity removed was 186 gallons.

Three smaller cysts, weighing in all about 20 pounds, and which had grown within the past three years, were not interfered with.

At the recent meeting of the Medico-Chirurgical Society of Montreal, Dr. Bessey presented for final inspection the case of Psoriasis Lepraformis of 18 years' standing, treated solely by bovine vaccination. The patient appeared to be perfectly cured, the disease having entirely disappeared, traces in the form of *skin marks* only remaining of what was at first a most inveterate and disagreeable looking case. The patient expressed herself well-pleased with the result.

By the result of this case Dr. Bessey has established the value of vaccination as a valuable agent in the treatment of chronic skin diseases.

LAWTON'S ABSORBENT COTTON.

Upon the first introduction, a year or two since, of absorbent cotton, the new article attracted much attention, and was eagerly received, especially by Surgeons and Gynæcologists. It was found to answer admirably many of the purposes for which patent lint was formerly employed, in the dressing of wounds, in applying medicated lotions, in soaking up discharges, etc., etc.

By soaking the absorbent cotton in medicated solutions, and subsequently drying it, we may obtain the effects of many local remedies. Thus we may, by using carbolic, boracic or salicylic acid, or Labarraque's solution, make it antiseptic. By saturating it with astringents, we may give it this property in any degree, even carrying it so far as to obtain a most powerful styptic. The article furnished by Wyeth of Philadelphia will be found very fine, on account of the facilities they possess for the manufacture, and the care taken at every step of the process.

"The Medical Faculty in Missouri are taking measures to rid the state of Quacks, with whom it is over-run."

"Three bills have been prepared for legislative action—one providing for the creation of a state board of health; another for regulating the practice of medicine, and the third for the registration of births, deaths and marriages."

"Owing to the enactment of stringent laws regulating medical practice in Illinois and Kansas, Missouri has been crushed with an immigration

"of irregulars, which she now finds it expedient
"to get rid of."

(*Frank Leslie's Illustrated Paper*, February
5th, 1881).

ADMINISTRATION OF ERGOT IN LABOR.

A writer in the *Dublin Journal of Medical Science* remarks that there is no doubt that the judicious administration of ergot will often save a woman from the necessity of a forceps delivery. If there is reason to fear postpartum hæmorrhage, ergot should be given always before the child is born. The fifteen to thirty minim range of the Pharmacopœial liquid extract is practically useless, but there is a limit to the dose which it is desirable to give. Two fluid drams may be cited as a maximum, but occasionally it is justifiable to repeat this quantity. Ergot should never be administered until the labor is so far advanced that it could, if necessary, be easily finished with forceps. In cases where tonic uterine contraction follows, threatening the life of the child, but not terminating the labor, recourse may then be had to the forceps. If the placenta should happen to be morbidly adherent, the danger of the complication may be greatly augmented by postpartum increased uterine contraction, due to the influence of the ergot administered.

Small-pox has broken out in the Fort Madison penitentiary, Iona, creating great excitement and panic.

Diphtheria and small-pox are said to be increasing in Chicago, and a case has been discovered in a tenement house there where six persons had the latter disease, and were without medical attendance for five days.

William Dewart, of Rochester, N.Y., has patented a device for ventilating houses, by using the well-known facts that plants give off ozone and oxygen, and absorb and use carbonic acid in their growth. His invention consists of a small conservatory, from which pipes issue to every room of the house, intended to convey the necessary oxygen.

Dr. McLaren, of Edinburgh, Scotland, states that the types of insanity have changed with modern times. For instance, acute delirious mania is now

comparatively rare, but mental enfeeblement attended with paralysis, is becoming more and more common, and is the result of the over-work and worry of the struggle for existence at the present day.

Dr. Wilkins, Professor of Physiology and Pathology, University of Bishop's College, has been appointed examiner in these subjects at the University of Toronto.

We direct attention to the advertisements regarding the preliminary examination of the College of Physicians and Surgeons of Quebec, and the half-yearly meeting of the Governors.

OBITUARY.

We record with much regret this month the death of Dr. Robert F. Godfrey, of Montreal, son of our much respected confrere, Dr. Robert T. Godfrey. The deceased began his medical studies at McGill University, concluding them at the University of Bishop's College, from which University he graduated with honors in 1873. He commenced the practice of his profession and big fair soon to have around him an extensive practice but failing health warned him to desist. He proceeded to Colorado, where he remained some time; returning he occupied a farm in a beautiful section of the Eastern Townships, devoting himself to agricultural pursuits. All was unavailing the disease, phthisis, continued its onward progress, and he returned to the parental roof, where surrounded by his friends, he passed to his rest at the early age of 30 years. Young Dr. Godfrey was a man of singularly amiable disposition, and among his college mates was a universal favorite. His abilities were of a high order, and had life and strength been spared to him he would have made his mark as a medical man. We extend to his parents our deep sympathy.

January 28th, 1881, at Richmond, Virginia, *Dr. Henry S. Jaynes, LL.D.*, aged 62 years, one of the most prominent physicians in Virginia, and a large contributor to professional literature.

Dr. Alva Curtis, of Cincinnati, aged 83, on 25th January, 1881.

DIED.

In Montreal, on the 24th February, Robert F. Godfrey, C.M., M.D., aged 30 years,