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# THE CANADA LANCET,

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

VOL. XII. TORONTO, DEC. 1ST, 1879. No. 4.

## Original Communications.

### ON THE TREATMENT OF FEBRILE DISEASES BY THE APPLICATION OF COLD.\*

BY T. K. HOLMES, M.D., CHATHAM, ONT.

GENTLEMEN,—I intend in this paper to present for your consideration some observations on the therapeutic uses of cold applied externally. The subject commends itself to me on account of the great efficiency of this agent in properly selected cases, and also on account of the neglect it has suffered at the hands of the profession generally.

There is reason for believing, that beyond sponging the bodies of fever patients with cold water for a few minutes night and morning, its employment is seldom resorted to by medical men in general practice. While sponging the skin for ten minutes with cold water may cleanse it and so render a patient more comfortable, it will not reduce the temperature, when much above the normal, one half of one degree Fahr. It is as an antipyretic that cold applications will be considered in this paper; it is therefore desirable to inquire into some of the phenomena of the febrile state. No question in experimental science presents greater difficulties than that of the causes of fever and their mode of action in producing it. By the light already shed on this subject it is justifiable to believe that essential fevers result in most cases from the introduction of a poison into the system, and that its presence initiates that complexus of morbid phenomena known as essential fever. As heat is only a mode of motion, all abnormal elevation of temperature in the animal organism must be the result of excessive motion therein, and is only an index of morbid processes taking place in disturbed cystogeny and retrograde metamorphosis. An eminent English writer, whose name I forget, believes the

heat of fever to be the result of intensely rapid cell generation, but as the elevation of protoplasm to more complex matter is a synthetical process, heat would be used and not produced in accomplishing it. It may be, however, that cells thus rapidly formed, being ephemeral in their nature undergo equally rapid disintegration, and are decomposed into substances much simpler in chemical composition than the protoplasm from which they were formed, and that the excess of heat so produced over the amount used in the cell formation accounts for the increased heat observed in the pyrexial state. If, to heat so produced, be added that resulting from rapid retrograde metamorphosis of tissue previously formed, a plausible explanation of the rise in temperature is reached. In whatever way produced, the abnormal temperature becomes the chief factor in a chain of morbid action always injurious and often dangerous.

I have here the heart of a turtle recently removed from the body. It will be observed that when heat is applied by holding the plate over a lamp, the pulsations become more frequent, and that placing it on a piece of ice causes the heart to beat more slowly. Placing it again over the lamp the pulsations immediately increase in frequency, and again changing it to the ice the pulsations fall as before. This phenomenon was first observed by Dr. Brunton, and suggested to my mind the propriety of instituting a series of observations on the action of cold applied to the surface of the human body during febrile action.

The result of these observations has convinced me, that in the external application of cold we possess an agent that merits far more attention from the profession than it receives. Although we cannot apply heat and cold directly to the human heart as has been witnessed in the experiment just made, we can deprive the blood in the superficial capillaries of its heat and send it back in a cooler stream to the laboring and exhausted heart, and so produce a similar effect to that produced by cold upon the heart of the turtle. The nerves of the heart are not alone susceptible to the influence of heat and cold, but every organ under the control of the great sympathetic, responds to the influence of these agents. Nor is this all. It will be shown in this paper that they are also capable of producing, by reflex action through the cerebro-spinal system, the most marked effects upon the organs

\* Read before the Canada Medical Association in London, Sept. 11th, 1879.

normally under volitional control. The sequence of morbid processes in fever seems to me to be as follows: 1st, the generation within the body or the introduction from without of a poison; 2nd, excessive molecular motion in tissue undergoing disintegration as a result of the presence of such poison; 3rd, the transmission of the resulting heat to nervous centres, by the sympathetic filaments to their ganglia, by afferent nerves to the centres of the cerebro-spinal system, and to both by the blood. 4th. Reconversion of heat into motion as seen in increased functional activity of the heart, lungs, skin and some other organs, and in some cases in the violent explosions of force as manifested in convulsions of the voluntary muscles.

It will be found on examination that the successful treatment of fever has for its object the arrest of one or all of these diseased actions. We attempt to eliminate the poison that has initiated the train of morbid action, or failing to do so we try to arrest the undue metamorphosis of tissue by diminishing the oxygen-carrying power of the blood. We try to allay reflex action in the nervous tissue or we endeavour to convey from the body the excess of heat generated.

If we succeed in eliminating the poison or in neutralizing it, the patient is cured and our aim accomplished, but from the nature of the poison we are often unable in the present state of medical knowledge to do either, and so excessive molecular motion goes on, heat continues to be generated in too great amount, and we have no alternative but to interpose obstacles to the passage of oxygen to the tissues in which the morbid process is being carried on, and at the same time to aid in the removal of heat as fast as it is generated. The former we accomplish by the administration of various antipyretics as quinine, veratrum viride, aconite, digitalis, &c., while the latter is best accomplished by abstracting heat from the body by the external application of cold. Heat generally produces such violent action in the circulatory organs as to rapidly exhaust them and render them incapable of bearing further depression by therapeutic agents, so that many drugs acting as most of those just named are inadmissible. Their action moreover, is often too slow to render them availing in the preservation of life.

It is under these circumstances that the rapid abstraction of heat becomes of paramount impor-

tance in affording relief or in saving life. We know that a temperature of 106° F. or higher is incompatible with life if continued for even a comparatively short time, whatever the disease may be, and we know of no internal remedy that will reduce it to the health standard as quickly, safely and certainly as cold applied externally.

If a well developed child weighing thirty pounds and having a temperature of 106° F. be placed in a bath of water at 50° F. there will be no perceptible fall in the axillary temperature for three minutes; the mercury will then begin to fall very slowly and in about fifteen minutes will stand at 98½° falling much more rapidly the last three degrees. The rapidity with which the temperature falls is not the same in every case and cannot be prognosticated; it is well therefore to always keep a clinical thermometer in the axilla and remove the patient from the water when the mercury has fallen to 99½° as there will be a further fall after removal from the bath.

The temperature may be reduced with almost equal facility by sponging the whole body with whiskey or brandy and fanning the wet skin at the same time to promote evaporation. This method indeed is often preferable. As cold water is apt to alarm young patients and is unpleasant at first, it is better to have the bath tepid and rapidly cool it by the addition of cold water or ice until our object is attained. This precaution is unnecessary when from any cause the patient is insensible, which is generally the case in infantile convulsions.

The most notable changes that accompany the fall in temperature are those pertaining to the nervous and circulatory systems. The pulse becomes less frequent, slower and softer, nervous excitability is allayed, muscular spasm ceases, sleep is often induced while the patient is still in the water, and is almost certain to supervene on removal from it. In some cases, the temperature having been thus reduced there is no subsequent rise, the case progressing to rapid recovery; but in many diseases it is necessary to repeat the bath at such intervals as will be indicated by the rise in temperature. By keeping the patient in a cool, well ventilated room, and resorting to the use of the sponge bath and the use of a fan, the repetition of the cold bath will only be required at long intervals and may not be required at all. Experience has led me to the conclusion that children are more intolerant of in-

creased temperature than adults and that it is in febrile diseases of the former we can accomplish most by the use of cold externally.

The febrile diseases in which I have found this treatment to be most useful are diarrhoea, dysentery, scarlet fever, acute bronchitis and convulsions, complicating febrile action. I have also treated acute pleurisy, pneumonia, and cerebro-spinal meningitis in this way, but not a sufficient number of cases on which to base any conclusions. I may say, however, that the cases of pleurisy seemed to be benefited, but the cases of pneumonia and cerebro-spinal meningitis terminated fatally, although not, I believe, on account of the cold water treatment.

A large number of children die every summer from acute diarrhoea. The attack usually comes on suddenly, the stools are frequent, the stomach sick, and the temperature high; If seen a few hours from the beginning of the disease the child will be found restless and pained, the stools offensive and unnatural in color, the features pinched and pale, the eyes sunken and often the feet and hands cold. The patient moans and moves the tongue about the mouth in a peculiar manner, and often makes efforts to vomit when no food or drink has been taken. If the case be allowed to go on, the pupils become contracted, the breathing labored, the extremities colder and bluish in color, the pulse frequent and feeble, the fontanelles depressed and the child rolls its head from side to side on the pillow. If the axillary temperature of that child be tested, it will almost certainly be found to be between  $103^{\circ}$  and  $106^{\circ}$  F., notwithstanding the coldness of the extremities. Such cases must have relief promptly or they will all die. The indications are to rid the bowels of offensive accumulations, to arrest the vomiting, to preserve the strength and to reduce the temperature. Purgatives will seldom remain on the stomach, nourishment and stimulants are rejected in the same manner; it is generally useless to administer anti-emetics, and even if we could wait for the action of drugs that reduce the temperature, they would, as a rule, be inadmissible on account of their depressing influence on the circulation. If a child in this condition be placed in a cold bath for from five to twenty minutes, according to the heat of its body, and the coldness of the water, the temperature will fall to the normal standard, the heart will

beat with more force, the thirst will be less intense, the circulation will become equalized, sleep will generally be procured, and the stomach will retain nourishment and medicine. If, after a few hours the temperature rise again, the bath can be repeated, but by allowing the child to lie naked and be sponged and fanned its repetition may not be necessary, for if, in the meantime a purgative dose of rhubarb or castor oil be given the tendency to a rise of temperature will not be so great. I have frequently seen children that had tossed and moaned for hours fall into a quiet sound sleep in the water in a few minutes, and continue to sleep well after being taken out. As an illustration I have transcribed from my case book the following typical cases.

CASE I.—July 27th, 1878.—J. Ellson, æt. 5 months, strong and well nourished, has had diarrhoea for forty-eight hours, and the mother thinks fever also. Looks distressed, temperature  $105^{\circ}$  F. pulse 130, evacuations greenish and offensive and about twelve a day. Ordered rhubarb and soda bicarb. aa. grs. iv. every two hours.

28th, 10 o'clock, a. m. The child has not rested but cries and tosses about incessantly, the extremities cold and temperature  $105^{\circ}$  F.; no pulse at wrist, breathing labored, fontanelles depressed, eyes sunken, features pinched and bluish and it refuses to nurse. Put it into water from the well until axillary temperature fell to  $99\frac{1}{2}^{\circ}$  when the child fell asleep. Soon after its removal from the water the pulse returned at the wrist, and the body and extremities became of about uniform warmth. At 1.30 p.m. the temperature had risen to  $104^{\circ}$  and the child was again restless. Repeated bath with same result as at first.

29th—Rested well all night and has nursed several times, temperature  $99\frac{1}{2}^{\circ}$ . Parents had used sponge bath and fan frequently through the night. Stools greenish. Ordered a dose of castor oil and chloral enough to make it rest.

30th—Passed a comfortable night and nurses well; has been sponged several times during last twelve hours; temperature  $99\frac{1}{2}^{\circ}$ . After this an occasional dose of rhubarb and soda was the only medicine given, and the child soon recovered entirely.

CASE II.—July 12th, 1876, 10 o'clock, a.m.—Casper Schwemler a robust child five months old has had diarrhoea for three days, but not very ill

until yesterday, since when it has neither nursed nor slept, but has constantly uttered half suppressed cries. It is pale, hands and feet cool and skin dry. Gave a purgative dose of rhubarb and calomel.

3 o'clock, p.m.—Bowels well moved by the medicine, the last evacuation being natural in color. Extremities cold, pulse imperceptible, pupils contracted, face leaden hue and thirst intense. The axillary temperature to my surprise was  $105^{\circ}$ , for I had been deceived by the coldness of the extremities and the general appearance of the patient, and did not expect to find temperature so high. Gave half a drachm of brandy and put it into a tepid bath, and rapidly cooled it by the addition of cold water. In ten minutes the temperature fell to  $102^{\circ}$ , and sleep came on for the first time in thirty hours. When the mercury fell to  $100^{\circ}$  I removed the child from the water and it slept most of the afternoon and was not thirsty. As the temperature fell the pulse became better and the pupils larger. 8 o'clock, p.m., temperature  $103^{\circ}$ , child sleeps well and looks comfortable. Bath repeated and temperature reduced to  $99^{\circ}$  in five minutes.

13th, 10 o'clock, a.m.—Rested well all night and nurses, temperature  $103^{\circ}$ . Ordered a dose of castor oil. 11 o'clock, a.m.—Child has had two convulsions within last few minutes, is insensible and temperature  $105\frac{1}{2}^{\circ}$ . Repeated the bath and reduced temperature to  $98\frac{1}{2}^{\circ}$ . After this the temperature never rose above  $101^{\circ}$ , the bath was not resorted to again, and in a few days the child was well.

CASE III, BRONCHITIS, Jan. 5th, 1879.—N. Clarke, æt. 14 months, ill five days with what the parents thought an ordinary cold.

I saw it on the fifth day of its illness, and found it with well-marked acute bronchitis, tem.  $105^{\circ}$ , pulse 140. Abundant râles over both lungs. For the next five days the treatment consisted of hot fomentations to the thorax, with occasional applications of turpentine to keep up slight counter-irritation, and the administration of quinine with small quantities of Dover's powder. An aperient given when required, and the child was allowed to nurse. The symptoms underwent but little change until the 10th, when great restlessness came on. The breathing was very rapid and there was constant moaning and rolling of the head. Extremities cold, pupils small, tongue dry, pulse too frequent to count, and tem.  $106^{\circ}$ .

Fearing the child would die unless relieved promptly, I felt justified in trying the effect of cold externally, which I did by removing hot fomentations, sponging the body with brandy and fanning it vigorously. At the end of half an hour, the temperature had fallen to  $99^{\circ}$ , and the patient was sound asleep, pulse slower and fuller, breathing easier and extremities warmer. I then instructed the attendants in the use of the thermometer, with the request to keep the axillary tem. as nearly  $100^{\circ}$  as possible, by the means just used.

11th. Instructions have been observed, and child has rested well and has not been very thirsty. Tem.  $100^{\circ}$ , resp. 35, pulse 130. Thinking the disease had passed the climax and that convalescence would go on, I advised the mother to put on the child a thin night-dress, and to omit the application of the brandy.

12th. The parents informed me that in four hours from the time the sponging was stopped, the child became restless and worse in every respect, and that the temperature rose to  $104^{\circ}$ , when they again resorted to the cold sponging with same beneficial result as before. For the next three days it was necessary to continue the cold applications several times daily, after which time the fever disappeared and the child made a good recovery.

In my own experience, eighty per cent. of all cases of convulsions in children occur during fever, and I believe are nearly always caused by the elevation of tem. alone. The ordinary treatment of such cases is unsatisfactory. Chloroform, first recommended by Sir James Simpson, will control the spasms, but in many cases these recur in such rapid succession that no intermission can be perceived; they continue whenever the anæsthetic is stopped, and our only recourse is to continue its administration until the fever yields to medicine, or subsides spontaneously. I have followed out this plan of treatment in many cases, often successfully and frequently not so.

I have notes of four fatal cases, in which the inhalation of chloroform was continued from six to thirty hours. The administration of medicine in these cases is always difficult, sometimes impossible, and is generally attended with risk to the already weakened heart. This is true of bromide of pot. chloral, veratrum. aconite, &c., while quinine acts too slowly to be depended upon in any severe case. Warm or hot baths are sometimes

useful, when by inducing perspiration, they reduce the temperature, but every medical man knows that they often fail to arrest the convulsions.

The cold bath fails so seldom that it may be considered a specific. The spasms will frequently continue until the temperature has been reduced to  $98\frac{1}{2}^{\circ}$ , but at this point they are almost invariably arrested. Several years' experience with this plan of treatment has inspired me with the strongest confidence in its usefulness, and yet a desire not to have its value over-estimated, compels me to admit that there are cases in which convulsions will return or continue, notwithstanding the reduction of temperature, but such cases are rare, and probably are complicated by organic lesions, as tubercular meningitis. The following cases will illustrate the comparative value of the cold water treatment of convulsions, complicating fever.

CASE IV., July 3rd, 1875, M. A. æt. 2 years, strong and well-developed, was taken suddenly ill last evening with dysentery and fever, which lasted all night, and at 7 this morning there was a convulsion. At 8 o'clock I saw him, tem.  $103^{\circ}$ —restless. Ordered a large dose of castor oil, and one-third of a drop of the fluid extract of aconite every hour while fever lasted. Another convulsion occurred at 10 a.m., and another at half-past 10, when I began the administration of chloroform. At noon the oil had operated well. At 2 p.m., the convulsions recurred and continued for two hours with no intermission, although the patient was partially under the influence of chloroform during the time. At 4 p.m. they were as violent as possible, tem.  $105^{\circ}$ , pulse 150, breathing noisy and labored, a light frothy foam was constantly discharging from the mouth and nostrils, and death seemed inevitable. I now put child into bath at  $50^{\circ}$ , and added ice and ice water. In ten minutes the breathing became easier in fifteen minutes, the tem. was  $102^{\circ}$ , and in twenty minutes  $99^{\circ}$ , and the pulse 110. All spasms had ceased, and the child was replaced in bed. It slept soundly for half an hour and awoke with no bad symptoms. There was no return of fever, and no further treatment was required.

CASE V.—Feb. 5th, 1871.—L. Lamont, æt. 6 years, was first ill this morning with chill followed by fever (malarious). At 1 p.m. convulsions came on and continued without intermission, until 5 p.m., when she died. The treatment consisted of

warm baths, castor oil, injection to move bowels, bromide of pot. and hydrate of chloral. The temperature the whole afternoon was  $104^{\circ}$ . Chloroform was administered part of the time.

CASE VI.—Sept. 26th, 1872.—P. T., a strong boy, 8 years old, was well until noon to day, when chill came on, followed by fever and convulsions, which still continued when I arrived at one o'clock p.m. The attendants had just removed him from a warm bath. It was impossible to get him to swallow anything. Applied cold to the head, gave an enema and put him under chloroform, which controlled the spasms, but they always returned when it was omitted. The enema acted well, the chloroform was continued, the temperature remained at  $106^{\circ}$ , the pulse became gradually weaker and more frequent, and after three hours he died.

CASE VII., Oct. 28th, 1876.—C. Gore, æt. one year, was never ill till last evening when fever came on and lasted all night. At 7 o'clock this morning convulsions began and lasted without intermission until half-past 11 a.m., when I saw the child and found him convulsed and senseless, with a tem. of  $104^{\circ}$ . Used cold bath and in ten minutes tem. fell to  $99^{\circ}$ , the spasms ceased and consciousness returned. The child remained well until the following Thursday (4 days), when it again had fever and convulsions beginning as before. The parents, having witnessed the beneficial effects of the former treatment, put the child into a cold bath, and in a few moments he was well and remained so afterwards.

In carrying out this plan of treatment, care is required to protect the bulb of the thermometer from contact with the water, by keeping the arm pressed firmly to the side. The application of cold should not be continued after the tem. has been reduced to  $99^{\circ}$ , as there will be a further fall after it has been stopped.

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### ERGOT VS. BRANDY IN UTERINE HEMORRHAGE.

BY THOMAS W. POOLE, M.D., LINDSAY, ONT.

A very recent issue of the LANCET contained reports of cases of severe uterine hemorrhage, in which, notwithstanding the repetition of large doses of ergot and the free use of alcoholic stimulants, *the flooding continued*. I do not refer more point-

edly to the article containing these reported cases, because it is not so much with these special cases, as with the general practice, of which they are typical, that I wish to deal.

A little consideration, surely, will show that ergot and brandy (or whiskey) produce opposite effects on the vascular system; that while ergot contracts the arterioles generally (as proved by microscopic and ophthalmoscopic observation), and in so doing lessens blood supply and arrests hemorrhage, brandy, on the contrary, dilates the arterioles (as in flushing), excites the heart to increased action, and thus produces an effect on the circulation the very opposite to that of ergot,—and one not only most undesirable, but even dangerous in actual or threatened hemorrhage. It seems desirable in the interests of sound practice and for the safety of our lying-in patients, to characterize the practice of simultaneously or alternately administering ergot and brandy in the class of cases referred to, as erroneous and unjustifiable.

We are far from denying that in extreme cases of exhaustion, when the heart is failing, and arrest of the circulation is threatened, a prompt stimulant is called for; but this is a different thing from administering whiskey or brandy during and at the close of labor, *with a view of assisting the action of ergot, or bringing about the desired uterine contraction.*

Every practitioner knows how unreliable the ordinary tincture of ergot is found to be; and though there may be pharmaceutical reasons why the tincture does not contain all the active principles of the drug, we are strongly inclined to the opinion that the chief reason for its failure is that the dilute alcohol it contains is sufficient to prevent or counteract the proper action of the ergot it holds in solution from exerting its expected influence over the arterial and uterine muscles.

During the earlier years of our practice we had a series of very severe hemorrhagic cases, which we have since attributed to the permission given the patient to use whiskey or brandy (then too often the custom) during or at the close of labor. We have been much more fortunate in this respect since avoiding alcoholic stimulants in these cases, and would not think of permitting their use, especially where hemorrhage was present or even anticipated.

It is no valid argument against the foregoing

views that in some instances brandy increases uterine activity and hastens labor. In the case of other patients the effect is the very reverse. The difference may be accounted for owing to the different susceptibilities of the patients. What is a stimulant for one is a sedative or depressant for another, and favors or retards uterine contraction accordingly. Alcoholic liquors when taken to full narcotism—that is complete drunkenness—produce arterial contraction and surface paleness and coldness, and in this stage of its effects alcohol becomes an ally of ergot. But before this stage is reached the previous one of stimulation, with its vascular excitation has to be passed through, so that for this and other obvious reasons, alcoholic narcotism, as well as alcoholic stimulation, is inadmissible in the treatment of hemorrhage.

Here we might stop, and perhaps we ought to do so. We have said our say—entered our protest, and attempted to justify it, and there only remains to make our bow, and retire. But every man who has a hobby is expected to trot it out on all possible occasions, and as we are one of these fortunate individuals, we append what follows, on which the editor can practice “excision” if so disposed.

The safety of the parturient woman depends on securing due contraction of two sets of muscular tissue, that of the muscular coats of the arteries and of the larger uterine muscle itself. Hence it becomes important to enquire on what muscular contractile power depends. All physiologists declare that this power is an inherent endowment of muscular tissue, and that even the uterus is in no way dependent upon nervous agency for the exercise of that power. (Dr. W. B. Carpenter, *Human Phys.*, pp. 979, 980, &c.) The contractile power of muscle is impaired by atrophy or degeneration of its tissue, and is increased by its own healthy nutrition. Although depending, in this way, on vital processes, and subject to co-ordinate control through the agency of the nervous system, muscular contractility is so far independent of vital dynamics that it survives the general death of the organism, and in *rigor mortis* displays “the most steady and persistent contraction which muscle can possibly exhibit,” (Dr. Anstie) yielding at last only to the disintegration of putrefaction. How then, do agents like ergot, acetate of lead, &c., produce the desired uterine and arterial muscular contrac-

tion, whereby post-partum hemorrhage is ordinarily arrested?

Not by acting as nutrients to these muscles, and so increasing their contractile power, for which these agents are unfit, and for which time cannot be afforded. Nor is the bleeding arrested by any direct astringent or styptic effects exerted on the uterine vessels through the general circulation, for which the quantity administered is too small; and such an effect, if it could be produced so as to choke the bleeding vessels, would be dangerous to the organism. Besides, microscopic and ophthalmic observations have shown that ergot actually reduces the calibre of the arterioles throughout the body—a sufficient explanation for the arrest of the hemorrhage.

Nor is this muscular contraction the result of any stimulus imparted *directly* to the muscular fibre, which is not amenable to excitation in such a way—the contractile power of a muscle being a comparatively fixed quantity, resulting from its state of nutrition at the time, and the freedom with which its various parts are brought into simultaneous action. Nor is muscular contractile power due to any stimulus conveyed to it from the nervous system, for Dr. C. B. Radcliffe has quoted authentic physiological experiments to prove that the contractile power of a muscle is most strongly exerted in proportion as the influence of the nervous system is withdrawn. (Lec. on Epilepsy, Paral. and Pain, pp. 95-100.) And in so far as this concerns the uterus, Dr. Carpenter shows that not only is post mortem parturition authentically recorded, but that normal parturition has occurred in cases of paraplegia, where the spinal functions were necessarily inactive. And besides, who would think of administering either ergot or acetate of lead as a vital stimulant to nerve or muscle!

Arterial contraction occurs to the greatest extent possible in the general death of the organism. *Ergot tends to produce a state of the arteries similar to that which occurs in the extinction of nerve force by death.* This fact alone, were there no others, would show that ergot is not a stimulant to the arterial muscle; and if not a stimulant to the arterial muscle, it is not a stimulant to the uterine muscle, both of which may be regarded as obeying the same laws and subject to the same influences.

The foregoing facts, we believe, show that the action of ergot is to partially paralyze the dilating

power of the vaso-motor nerves of the arterioles (as death does to a greater extent), and then, in one case as in the other, the inherent contractile power of the arterial muscle asserts itself, contracting the calibre of these vessels to a greater or lesser degree, and arresting hemorrhage when this is present. By an application of the same principles to the uterus itself, ergot would be held to paralyze the motor nerves of that organ, which ordinarily *restrain* its muscular contractions, and the uterine muscle being thus set free to exert that independent contractile power, which Dr. Carpenter ascribes to it, it does so accordingly, with the increased effect we witness under the action of ergot. That ergot should be regarded as a paralyzer, rather than as a stimulant, will be no way surprising if a reference is made to the general effects of this drug as described by Dr. Pereira.

Electricity also produces arterial as well as general muscular contraction. That it is a paralyzer of nerve force we think cannot be doubted. It sets the muscle free to contract, as does ergot, only much more suddenly and by a paralysis of the nerve more intense while it lasts. In moribund cases it hastens the onset of rigor mortis, and thus shows, that like ergot, *it tends to produce a condition of the muscles similar to that occasioned by the cessation of nerve action.*

Water, not merely warm, but *hot*—ranging from 117° to 124° Fah.—also arrests uterine and other hemorrhage. A recent writer in a leading journal suggests that it does this through the agency of the vaso-motor nerves. Is it not as fair to infer that water so hot, paralyzes these delicate nerve fibrils, as that it excites them; and that as a consequence, the less vital and less impressive contractility of the arterial muscle is set free to contract, and so to occlude, these tubes? The truth of this view of the case finds confirmation in the fact that if a frog be placed in water, the temperature of which is raised to 42°C., or 107½° Fah., it speedily dies of “tetanic heat rigidity.” Would anyone say, as the frog was dying, that its nervous centres were excited, and as a consequence were “discharging” nerve force in excess, as a result of which, its muscles were so strongly contracted? If so, why does the frog die with its nervous system acting so vigorously?

When the parturient woman suffers from a cramp in her limb, do we attribute the knotty and con-



tracted condition of the muscle to an excess of nerve force, stimulating it to an unwonted degree, or rather to temporary paralysis of the nerve trunk from pressure in the pelvis, which for a time deprives the muscle of its ordinary nervous restraint?

That ergot, acetate of lead, electricity and hot water are depressants of nerve force is further shown by a comparison of their effects with that of brandy, which is an undoubted stimulant, and as such excites the vaso-motor nerves so as to induce arterial dilatation and increased vascular activity. As the other agents mentioned produce the very opposite effects, they cannot be regarded as stimulants, and if not, then it is difficult to see what explanation of their mode of action other than that given above is possible, consistently with the foregoing physiological facts.

Lindsay, Ont., Nov. 5th, 1879.

### SEVERE INJURY TO THE BRAIN.— RECOVERY.

BY DRs. N. R. COLTER AND STEPHEN SMITH, WOODSTOCK, N.B.

We enclose the following notes, made from memory, of a case which has recently occurred in our practice, and which seems to us worthy of record, in view of the speedy recovery from a severe injury, and the amount of brain tissue lost, without any apparent effect on the intelligence of the sufferer.

On Saturday evening, Sept. 20th, Dr. Colter was called about nine miles into the country, to see a girl named Fletcher, aged 12, who had been kicked by a colt, in the forehead. He found her in a semi-comatose condition, unable to speak, with fully dilated pupils. Her friends reported that they found her lying, a few minutes after the accident, entirely unconscious, and as they thought, dead. The wound, however, soon began to bleed, and she aroused partially and was carried from the barn to the house.

The injury was a semicircular wound in the forehead, the lower edge about  $\frac{3}{4}$  inch above the left superciliary ridge, the outer edge, about  $\frac{1}{2}$  inch from the temporal ridge, and extending about  $1\frac{1}{2}$  inches—filled with coagulum—on removing which, he found oozing out semi-solid gray matter, evidently a portion of the cerebral substance. The

finger detected a depressed portion of the frontal bone,  $1\frac{1}{2}$  by  $1\frac{1}{4}$  inches—surrounded by the rough edges of fractured bone—lying loose and pushed into the brain. This he was unable to remove with any means he had at hand. As he was some distance from home, and the prospect of death was imminent, he made use of such simple means as were at hand, to relieve the shock, viz. : Cold applications to the head, external heat to the body, with spirits of ammonia internally, and promised to return in the morning and remove the bone, if she were still alive. On Sunday morning, Dr. Colter and I visited the patient, and found her still alive and sufficiently conscious to groan when she was moved. We etherized her, trephined below the fracture, and removed the depressed portions, which we found had penetrated through all the membranes and had broken up the subjacent cerebrum, part of which oozed out, with a small quantity of blood, when the bone came away. As soon as she recovered from the effects of the ether, she began to talk and laugh somewhat wildly, but recognized her friends.

We had previously applied a carbolized lotion freely, and sewed up the upper portion of the wound, leaving the lower part open for drainage. Ordered the carbolized lotion to be continued, and the constant application of cold spring water, for lack of ice, to the head. Light diet, and a dose of salts and cream of tartar next morning. Her pupils still continued largely dilated, but responded somewhat to light.

Sept. 23rd. Dr. Colter saw her; medicine had operated freely; wound had bled somewhat; considerable cerebral substance on all the dressings; head hot; skin feverish; delirious; pulse 120; thready; respiration hurried; pupils still dilated; spoke occasionally a word or two; tried constantly to tear off the bandages; had occasional restless sleep; pushed down the bed clothes when she wished to urinate; took food and drink when it was given her with a spoon. The brain bulged somewhat through the wound. Dr. C. removed a stitch to relieve pressure and facilitate drainage, and dressed the wound.

Sept. 25th. Drs. C. and I both saw her. Symptoms not materially changed, except that she had had 8 or 10 convulsive seizures during the night. The brain protruded largely through the wound and was beginning to slough on the surface. She

had now lost the use of her right arm, but not the leg ; her under jaw was stiff ; could not protrude her tongue beyond her teeth ; had some difficulty in swallowing, and had ceased to be able to articulate. Removed another stitch ; cerebral matter sloughing freely ; a little pus and serum oozing away. Pupils still dilated and a little responsive to light. Ordered another dose of salts and a mixture of 15 grs. of chloral hydrate, with 15 grs. of bromide of potassium, to be given at 8 p.m., and repeated every four hours, for three doses, if convulsions continued.

Sept. 28th. Dr. C. and I both saw her ; friends reported that they had only given one dose of the chloral mixture, through error ; convulsions few on Thursday night, frequent through Friday and Saturday, and so constant on Saturday night that they thought she was dying, and ceased to feed or disturb her. Found her very weak ; gave food and stimulants before dressing the wound ; ordered beef tea and brandy every two hours, and chloral mixture every four hours, till seen again. Condition of wound but little changed ; brain more sloughy ; right arm quite paralysed ; speechless ; but evidently understood when spoken to sharply.

Sept. 30th. Convulsions now only recurred at night, and then not nearly so frequently ; slept a good deal ; had taken more nourishment ; fever considerably abated ; head cooler ; pupils still dilated. Removed the sloughy brain freely, and two more stitches. Ordered chloral at night only, 15 grs., bromide of potassium every four hours in day time ; continue beef tea and brandy freely.

Oct. 1. Condition but little changed ; removed remaining stitch, and substituted supporting strips of plaster ; cut away all the sloughy brain visible ; continued other treatment.

Oct. 4th, Dr. Colter saw her. Found her much improved ; fever and heat of head almost gone ; quite intelligent but unable to speak ; could move the upper part of right arm slightly ; took nourishment freely ; bowels acting naturally ; no return of convulsions ; slept well at night ; wound beginning to heal at the edges, but little slough remaining ; a good deal of pus oozing out.

Had daily reports from her of steady improvement, (she was an impecunious patient.) Oct. 13th I visited her. Found her improving in every way ; wound glazing over and uniting with the skin around ; fever gone ; intelligent ; using right

arm feebly ; speechless ; pupils still dilated ; but less than before ; eating freely.

Oct. 15th. Found her sitting up in a chair, partly dressed. Improving in every way ; understood everything said to her readily, but could only respond with "ga-ga-ga," which sounds made her laugh at herself. Her arm had become quite useful.

Oct. 21st. Still improving except in speech, which was unchanged. A few days later heard from her brother that she was about the house beginning to articulate the family names, and seemed to be quite as intelligent as she had ever been. Since reported, that the wound is nearly healed, her health quite good, and intelligence unimpaired.

The size of bone removed was nearly that of a Mexican dollar, and at least a fluid ounce and a half of brain was lost.

## THE MICROBIO OF PUERPERAL FEVER.

(Translated from *El Siglo Medico*.)

BY JOSEPH WORKMAN, M.D., TORONTO.

"Our readers may regularly follow the progressive daily investigations made in relation to the inferior organisms which are believed to be met with in certain diseases, constituting their primordial and constant cause. The collection of these microbial generators of diseases, thanks to the labours of Pasteur and his disciples and imitators, continually augments in the liquids contaminated by the organism. In addition to the bacteria of carbuncle, the vibrios of septicæmia, and of purulent infection and simple suppuration, we have henceforth to admit the microbio of puerperal fever, whose existence, suspected by Pasteur, appears to have been established in the following conditions.

A woman who, a few days previously, had been delivered in the ward of Dr. Hervieux, in the Maternity, suffered under a very characteristic puerperal fever ; her death was certain, and in fact took place on Sunday morning at six o'clock. The *lochia* of this patient, examined on the previous Wednesday, were found very fetid, and full of various microbes, both moving and motionless, among which was encountered in great quantity an

organism in form of spherical grains, associated two and two, or four and four, or forming rosaries, such as Pasteur described in one of the last meetings of the Academy of Medicine of Paris. The blood drawn from a puncture in the finger, presented in only a doubtful manner the presence of the new organism, but treated in a medium of culture it gave place, without mixture with microbes of a different nature, to the development of this same organism, formed in walls of grains, or rosaries of grains. New cultures, made during life, and at seven, and thirty-two, hours after death, gave similar results. In the autopsy, the pus of the uterus, the Fallopian tubes, and the uterine lymphatics, also contained this organism, but associated with others under the form of points and minute rods, some of them moveable.

Equal results were obtained, not only with the blood and lochia of a woman who in like manner died under very grave puerperal fever, in the clinique of Dr. M. Raynaud in the Lariboisiere hospital, but also with the pus taken by means of puncture of the peritoneal cavity. Beyond doubt, the culture of this last gave likewise the organism in form of rosary, and associated with it the very diminutive microbio in minute twigs, which Pasteur, Joubert and Chamberland had already signalized as a most active generator of pus.

Whilst Pasteur was devoting himself to these investigations on the liquids of the puerperal state, Dr. Geltz of Nancy sent to the institute a note, stating that a cryptogam of the genus leptotrix, very similar to the leptotrix met with in the saliva, and on the gums, existed in great quantity during life, in the blood of a woman attacked with puerperal fever of a grave form. Inoculation of these cryptogamic twiglets, found in the living or the dead blood, practised on guinea-pigs, appeared to establish its toxic action, and its innumerable reproduction in the blood. But this reproduction was effected only in guinea-pigs and rabbits, and not in dogs.

As to this leptotrix of Geltz, does it hold any analogy with the puerperal microbio of Pasteur? Does it not seem to result, from the descriptions respectively given by both authors, that the puerperal state holds various generations in the domain of the microbes? Already, for example, we know of three,—that of Geltz, and the two of Pasteur, in the form of rosaries, and the

very minute twiglets, active generators of pus. Be the fact as it may, Pasteur insists that these microbes are very common, and are met with in all parts; it is quite easy to extract them from common waters, and hence it is that Pasteur is inclined to affirm, that in the presence of associated microscopic organism, we should to day preferentially seek for the etiology of puerperal fever. It is easy to comprehend the *role*, which, according to the conviction of Pasteur, common waters must play in this etiology; accordingly he proceeds to announce, as his final conclusion, that in his opinion, we should prohibit the employment of common waters in the washing of the genital organs, and use only water which has been heated up to 115° Centigrade (207° Fahr.)

M. Pasteur further advises, for the washing of the genital organs, the employment of boracic acid, which, according to observations, confirmed by the results of the practice of professor Guyon, opposes the development of the organic production of ammoniacal urine. The mucous tissues bear very well a 4 per cent. solution of this acid, which suffices to kill the organisms in question. Certainly this is a rational therapeutic, and those who hold the doctrine of etiology by these micro-organisms —(a doctrine which we know is every day making progress,)—would be very culpable, should they disdain the use of a means so simple, in presence of a disease so terrible as puerperal fever.

We would here beg permission to offer a few observations on the interesting investigations of the authors mentioned. If the doctrine of these micro-organisms is presented to us as extremely similar in certain affections — such as carbuncle and septicæmia, in which there is observed a certain relation of causality between the moment of introduction of the organized miasmatic poison and the appearance of the disease, and which is always alike in different individuals, sexes, and ages, it appears to us, that the admission of an elemental organism capable of producing a pathological state as its consequences, only in individuals of one sex, and of an age so particular and determined as that of the puerperal, is repugnant to the idea of similitude and analogy. What reason can there be that these microbes do not produce analogous phenomena of absorption in man and woman? Is it because that during the first days after delivery, there exists a solution of

continuity through which the germs in question may enter? If this be so, why is it that in the wounded and those having ulcers, the infective phenomena are not presented, when they are submitted to identical hygienic conditions, in the same habitations, and practising cures with the same waters which are regarded as so toxic? How is it to be explained that during epidemics of puerperal fever, analogous phenomena are not presented in children and men?

It is true that argument and theory should yield to observation and experiment; it is however, certain, that neither have experiments been so numerous, nor observations so unassailable, as to prevent us here recording, with greater reason than on other occasions, that it is still to some pathologists doubtful whether those germal miasms, verified by the microscope and observation, are the cause, or one of the effects, of the infective diseases.

### Correspondence.

#### CHLORAL IN DIPHTHERIA.

To the Editor of the CANADA LANCET.

SIR,—An item in your November number determined me to give you my experience with chloral in diphtheria. About three years ago, a case of sporadic diphtheria of malignant character came under my care. When about despairing of the patient's life, I prescribed a sleeping draught containing chloral hydrate and potas. brom., with a view to obtain much needed sleep. Next morning I was agreeably surprised to find my patient improved, and attributing the change to the rest, ordered the draught to be repeated that evening. On returning the following morning, the patient was still more improved, and expressed her belief "that the sleeping mixture did her throat more good than any gargle yet used, as it brought up far more stuff from her throat and made it feel better after." On investigation this was found to be the case, and a wash containing chloral hydrate  $\mathfrak{z}$ , to an ounce of water, was ordered at once, and with wonderful effect, the patches peeling off rapidly, the throat feeling more comfortable, and the patient improving generally. Following up this treatment as opportunity offered, I was convinced that a specific had been obtained for diph-

theria (as much so as quinine in intermittent fever); but being deterred by past results with new remedies, I decided to await a more crucial test, and have, during the past two months, obtained such, as this locality has been visited by an epidemic of the formerly dreaded disease. In that time I have successfully treated fourteen cases of undoubted character, some very severe, and several others of a diphtheritic nature, and was about to publish a record of them, in order more clearly to establish my conclusions, but do not deem it necessary when such an eminent authority as Rokitansky can be referred to by the profession. I feel quite confident in recommending this remedy, and have experienced very great pleasure in "going back" on my old friends, carbolic acid, tinct. ferri. mur., bromo-chloralum et cetera. I have at the same time administered internally acid salicylic and quiniæ sulph., to prevent blood poisoning, but am quite sure that the local improvement is not due to these, as they have been given in pills and wafers, with equally good results. The wash is applied by a sponge swab, as I find that the contraction of the fauces on introducing the swab is sufficient to express the liquid, and one such application every three hours has proved satisfactory so far. Apologizing for the length of this letter,

I remain, yours sincerely,

R. CARNEY.

Windsor, Nov. 14, '79.

#### "MEDICAL ETHICS."

To the Editor of the CANADA LANCET.

SIR,—Will you kindly give an opinion on the following case through the columns of your valuable journal. In July last a woman (Mrs. M.) was taken ill, and Dr. X. was called upon to attend her. What the case was at the outset, I know not. After a number of days, the husband becoming dissatisfied with the treatment of the above named gentleman, discharged him, and employed Dr. Y., who attended for several days. He then found that the woman would have to be sent to the Insane Asylum, and called in Dr. Z. to examine her and sign a certificate for her admission, which was done. Some time afterwards Dr. Z. sent his bill to Dr. Reid, Superintendent Insane Asylum, who returned

it, saying that Mrs. M. had been admitted on the certificates of Drs. X. and Y. Dr. Z. at once interviewed Mr. M. (the husband,) and learned the following facts. After Dr. Z.'s departure from his house, Dr. X. came in and said that "if there were five dollars to be made out of his wife's case that he had a right to make it," and wound up with giving Mr. M. a *third* certificate, recommending him to have his wife admitted upon that (*his*) certificate, and Dr. Y.'s. Now, Mr. Editor, I would like to know if such a line of conduct as this is becoming a gentleman, and in keeping with the code of professional ethics?

Yours truly,

Dartmouth, N.S., Nov. 7, 1877.

Z.

[We do not think Dr. X.'s conduct was in keeping with the code. The patient was no longer his as he had been discharged, and he had no right there, unless again sent for by the husband or Dr. Y. It was certainly very annoying to Dr. Z. after having been called in by Dr. Y. to make out a certificate of insanity, to have it set aside by the certificate of another. On the other hand we think as a matter of courtesy, under the circumstances, Dr. Y. might have called in the former medical attendant, although he was under no obligation to do so.]—ED. LANCET.

To the Editor of the CANADA LANCET.

SIR,—In your last number you mention a communication from an indignant brother, in which he reflects upon the Medical Council as an "august body," and is especially confounded by the issue of certain instructions to detective Smith, directing him to cease the prosecution of midwives. These instructions are signed by the President, and with reference to them, your correspondent wishes to know, 1st, "For what he pays his annual contribution to the College of Physicians and Surgeons?" and 2nd, he asks, "Can the President break the law?"

As to the first question I would say, that surely the College is not regarded as an institution created for the purpose of affording to its members protection in their professional pursuits against those who are not in its register, and it is not supposed that the annual dollar is levied to provide the means of securing that protection. Did the Ontario Legislature, in enacting the medical bill, remember only

the interests of the medical men of the country, and forget those of all their other constituents? My view of the intentions of the Legislature has always been just the opposite of that. I have supposed that the scope and aim of the Medical Act was simply the protection of the lieges from ignorant men, acting as physicians, whether these men had college degrees or not; and that it was thought that the end desired would be best secured by instituting our College, and committing to its honor the testing of the qualifications of those who were to care for the health of the community. I do not believe that the intentions of the Legislature went beyond that; and I am pretty sure that the unpopularity of the College which is so evident, is grounded upon indignation at an apparent desire on the part of members of the College to go beyond the intentions of the Legislature, and to seek protection for themselves.

The trust reposed in the College is surely an important and an honorable one, and it is to enable us to fulfil it, that the contribution of one dollar a year has been imposed. I do not say but that the Legislature should provide the funds, since it has imposed the trust, but it has not provided the funds, and for reasons which seem good to itself, it probably will not provide them. It cannot be proposed that we should retire from the position we occupy, rather than that we should pay our small yearly contribution. If our College is to collapse, let it not be on that point at any rate. I am sure that if, when I looked on my dollar for the last time, I had the reflection that I was parting with it, that it might be used in the prosecution of midwives, I would think I was devoting it to a very poor mission, and would grumble with the loudest, and I am glad to think, that the Medical Council, with all its faults, is really too "august" to raise funds for such a purpose.

With respect to breaking the law, I may venture an assurance that the law is in no danger. It is not at all a breach of the law to refrain from setting its processes a-going, and that is all which the President can be accused of, in reference to the prosecution of the midwives.

There is nothing to prevent your correspondent himself from proceeding against these women, if he has a call of conscience in that direction, or if he thinks the game worth the candle.

Yours truly,

J. D. MACDONALD,

President C. P. & S., O.

Hamilton, Nov. 7th, 1879.

## Selected Articles.

### ELECTRICITY A PARALYZING AGENT.

[The *N. Y. Medical Record* of a recent date, publishes an interesting article under the above heading, written by Dr. Thomas W. Poole, of Lindsay, Ont., from which we make the following selections:]

"In proof of its paralyzing effects on nerve-tissue, we point, first, to Matteucci's experiment on the spinal cord of a living rabbit, in which it was shown that during the passage of a common galvanic current the cord might be pricked, cut, torn, burned, or otherwise injured, without eliciting from the animal any sign of pain. Dr. C. B. Radcliffe, F.R.S., quotes this experiment (with others) in his 'Lectures on Epilepsy, Paralysis, and Pain,' and there distinctly asserts 'the paralyzing influence' of electricity: 'Whether the current was passed up the spine or down the spine, the result was the same so far as its paralyzing action was concerned, and so it was in the other two experiments which have been mentioned' (p. 65). Dr. Radcliffe, however, asserts that the muscles, as well as the nerves, are paralyzed by the galvanic current, to which, as well as to some other of his conclusions, we take exception, for reasons which will hereafter appear. Drs. Beard and Rockwell, leading medical electricians of New York, also testify to the same effect in stating that 'the cord remains insensible to any stimulus that may be applied to it, so long as the current is passing' (*Med. and Surg. Elec.*, 2d ed., p. 127). Dr. Moritz Meyer refers to the observations of Valentine, Matteucci, and Eckhard in this connection, and to the effects of the constant current on nerve-tissues and adds: 'In other words, *the nerve is paralyzed* so long as any portion of it is subjected to the action of a continuous current' (*Elec. in Prac. Med.* (Hammond), p. 62).

The faradic current produces similar paralyzing effects, which differ from those of the galvanic current 'mainly in degree.' Thus the faradic current has been effectually employed to benumb local sensation in parts about to be subjected to minor surgical operations, and, as is well known, both currents are employed for the temporary relief of neuralgia and other painful states; for which result no better explanation can be offered than that the nerves of the affected part are for the time so paralyzed as to render them incapable of transmitting the sensation of pain. It may be said that this effect is properly anæsthesia rather than paralysis; but these are only different names for the same condition, and as Dr. Anstie has fully shown, anæsthetics are invariably paralyzers (*Stim. and Narcot*, pp. 273, 328, 398, etc.)."

"We are convinced that the nerves do not 'stim-

ulate' the muscles to contract. We find all the physiologists asserting the inherent contractile power of muscular fibre, and even admitting the ability of muscle to exercise this power, in many instances, quite independently of nervous influence. Illustrations of this are to be found in the movements of microscopic portions of protoplasm; in the contractions of the foetal heart before the development of nerves; in rhythmical and other movements of muscular parts after death of the body; in post-mortem parturition in pregnant females who had died undelivered at or near the end of the period of gestation; in parturition normally occurring in cases where the spinal cord had been destroyed by disease, or paralyzed previously, well authenticated cases of which are mentioned by Dr. W. B. Carpenter (*Human Physiology*, 5th Am. ed., pp. 979, 980); in the existence of rigor mortis, the facts of which have not been explained on any satisfactory basis (not excepting the latest hypothesis, which refers it to coagulation of the myosin or muscle plasma), other than that of independent muscular contraction, which is the view of the late Dr. Anstie and of physiologists generally.

Dr. C. B. Radcliffe, in the work already quoted, asserts (in support of a different thesis) that 'muscles do not pass into a state of contraction when they may be supposed to receive a larger supply of nervous influence than usual;' and, again, that 'ordinary muscular contraction is associated with deprivation of nervous influence;' nay, more, 'that *the power of muscular contraction is inversely related to the amount of nervous influence supplied to the muscles from the nervous centres*' (pp. 95-100). The experiments of Sir A. Cooper, Kussmaul and Tenner, and Dr. Brown-Sequard, are quoted in support of these propositions, which find additional confirmation in such facts as the cure of a much larger percentage of cases of tetanus by stimulants than by any other means (Dr. W. A. Hammond, *Diseases of Nerv. Syst.*, 550). It is only on the view that in the excessive muscular contraction here witnessed nerve-force was in abeyance (and not in excess) that stimulants could be justifiable, or this result explained. Dr. Anstie was so impressed with the force of Dr. Radcliffe's argument that after referring to it he writes: 'The true action of vital force would appear to be rather that of restraining muscular contraction than of exciting it' (*Stim. and Narcot.*, p. 70)."

"Electricity paralyzes the motor nerves, and so permits muscular contraction. This principle, like a master-key, unlocks the fastnesses and clears up the obscure and hitherto unexplained problems in electrical treatment. It accounts for the benefit this agent sometimes affords to muscles suffering from enforced disuse, by the exercise it gives them, thus attracting blood, and with this pabulum, where-by their nutrition is improved. It accounts for the failure of electricity in chorea (Dr. J. Russell Rey-

nolds, Clin. Uses, etc., p. 83) and in spasmodic states generally. Why this failure? Because the preponderance of muscular action here is owing to the too feeble restraint already exercised by weak or exhausted nerves, and an additional paralyzing agent is the least likely means to benefit them. It explains why electricity is powerless for good whenever, as in early and late rigidity, it fails to induce muscular contraction; because the muscle is already isolated from the nervous centre; the nerve is paralyzed and electricity can paralyze it no further; the muscle is already freed from nervous restraint, and as electricity can free it no further it fails to cause it to contract, and its use can do no good, but may do much harm. It also serves to explain why it is, 'if you find, for instance, a limb perfectly paralyzed, but contracting perfectly well to galvanism, or sometimes acting even in excess, you can do nothing more by applying galvanism to that limb' (Dr. J. Russell Reynolds, Clin. Uses of Elec. p. 94). The benefits of electricity are for the muscle, in the manner already stated, but here the muscles are healthy and their condition cannot be improved. It is the nerve that is at fault, and electricity not being a tonic, or stimulant, or vitalizer to it, does not improve its condition, as it ought to do if it possessed the qualities attributed to it. Here is a problem: 'Why the muscles that are paralyzed should act more readily than healthy muscles to a slowly interrupted current has not yet been explained' (ib., p. 98). The explanation is easy. A weaker current serves to paralyze the nerves of the diseased limb, and set the muscles free to contract, than will suffice for the healthy nerves of the sound limb. Why a slowly interrupted galvanic current is sometimes effective for this purpose, where the faradic current fails, we have discussed elsewhere in our 'Physiological Therapeutics,' where the more important objections to the theory here advocated have also been considered.

Numerous facts might be adduced to show that the relations here assigned to motor nerve and muscle, apply also to the vaso-motor nerves and muscular coats of the arterioles. But as this part of the subject is only indirectly associated with the topic of this paper, and as we have discussed it in a recent issue of the *Record*, under the title of 'The Effect of Pithing on the Vascular System,' we make no further reference to it here.

We have already shown, how, as a paralyzing agent, electricity indirectly benefits muscles whose functional power is impaired from atrophy or disuse,—by improving their nutrition. A wide field of usefulness is also open to this agent—on the same view of its action as a nerve paralyzer—in the control it exercises over vascular activity in organs and tissues. By paralyzing the vaso-motor nerves (whose function we claim to be to *dilate* the arterioles) it brings into play the independent con-

tractile power of the muscular tissue of the arterial coats, and thus produces a reduction in the calibre of these vessels, arresting congestion and diminishing blood supply to morbid growths or hypertrophied tissues, with the gratifying results not unfrequently recorded. Thus the undoubted beneficial results of electricity in certain cases, as well as its failure in others, find a ready explanation in the theory we advocate."

"We desire to refer briefly to the serious consequences which may, and have, resulted in practice from the mistaken idea that electricity is a tonic or stimulant. We refer especially to its use as a supposed restorative in cases of suspended animation, as in apparent drowning, or in threatened death from chloroform. The cases on record where apparent benefit has resulted from electricity in these states, are so few, so associated with other remedial processes, and generally so unsatisfactory, as to furnish no trustworthy evidence in its favor, while that to the contrary is direct and convincing. It has notably failed in experiments where these states were artificially produced to test its powers, in the hands of such experienced electricians as Drs. Beard and Rockwell (*Med. and Surg. Elec.*, 2d ed. pp. 665-6). It has extinguished the spark of life in cases of threatened death, which were happily recovering under other means; and many more such catastrophes would be on record, if duly reported, and if it were not that batteries are frequently not available on such occasions—or when so, are often out of order, and fail to act.

Dr. Ringer, in writing of the use of electricity in these cases, states that 'some authorities are wholly opposed to its use, on the score of its influence to arrest a very feebly beating heart, and so diminishing any slight remaining chances of recovery' (*Therapeutics*, p. 292). Dr. B. W. Richardson, of London, England, writing of resuscitation from the narcotism of chloroform artificially induced, states: 'I feel it too unreasonable to recommend galvanic action as a means of resuscitation. Galvanism is a two-edged sword. It might by accident, I may say, in some cases, restart respiration, but it would in this respect be inferior in principle to artificial respiration, and in the majority of cases *it would more effectually promote death than restore life*. . . . When used as it is commonly used, merely to excite prolonged contraction of muscles, it is not aimless merely, but positively mischievous.' Having narcotized a rabbit with chloroform till respiration and other evidences of life had ceased, and restored it by artificial respiration, he narcotized another to a similar degree, to show the effects of electricity. Commenting on the fatal result, he states: 'When I used the electric stimulus [observe the word employed in this connection], I took out of the muscles what remaining force was there—the primary force required for recovery—and under the semblance of restor-

ing life, *clenched death!*' (*Medical Times and Gazette*, 1870. Braith. Retros., January, 1871, p. 256).

How well this tallies with the action of electricity as a paralyzer, and how very inconsistent it is with its action as a reputed stimulus! Yet such is the force of habit, custom, or blind adherence to authority, that men call that a stimulus while in the very act of recording its paralyzing effects. Nor is Dr. Richardson happy in his allusion to taking the force out of the muscles. The muscle is not paralyzed by electricity. It will soon pass into rigor mortis, in which it will display 'the most steady and persistent contraction which muscle can possibly exhibit,' to use the words of Dr. Anstie, a condition which electricity simply hastens. If Dr. R. had stated that by means of the electric current he had intensified the already existing paralysis of the nerves (produced by the chloroform), and thus prevented all chance of recovery, his statement would have been more in accord with his facts, and with the ideas he evidently intended to convey."

#### THE USES OF THE HOT-WATER DOUCHE IN PARTURITION.

Dr. Albert H. Smith, in a paper read before the Philadelphia County Medical Society (*Phil. Med. Times*, Aug. 16, '79), claims as facts proven by experience that the hot-water douche (110° to 115°) thrown upon the cervix uteri or the rim of the undilated os, will stimulate contraction of the longitudinal and oblique muscular fibres of the uterus into an expulsive effort, while the circular fibres surrounding the os relax under its influence; 2d, that a similar douche thrown into the cavity of the relaxed and bleeding uterus, after the expulsion of the fœtus or the placenta, will produce prompt and vigorous condensation of the uterine walls, with an immediate closure of the sinuses; 3d, that a like application to a bleeding surface from laceration in the passage of the child through the pelvic canal will arrest the hemorrhage at any point, whether it be from a tear of the circular artery in the cervix, or from rupture of the vascular tissues upon the anterior margin of the vulva about the vestibule, or from the furrows upon the posterior wall and the labia.

Dr. Smith has found the application to the cervix of the hot douche thoroughly and rapidly effectual in the first stage of normal labor at full time, almost equally rapid in a rigid condition in an accidental premature labor, and more slowly—though with ultimate effect—in the induction of labor in a quiescent uterus. The method of application is simple. The patient should lie upon her back, with a bed-pan placed far under her sacrum, so that there should be no danger of the water getting upon her clothing.

The injection should be thrown into the vagina with a syringe with a rubber tube and metal nozzle with a large hole in the end, and Dr. Smith prefers the Davidson bulb-syringe, as the stream can be driven with more force, and with the intermittent action necessary with that instrument. A quart to three pints of water medicated with ʒij of 90 per cent. solution of carbolic acid, or ʒss of Labarraque's solution should be thrown into the vagina, the pipe being directed *against* the cervix, not into it. The douche may be repeated every hour or two, according to the demands of the case, or the violence of its results.

The condition in which we get the most signal effects from the douche is that of uterine inertia after the placental delivery, and in this condition Dr. Smith is inclined to think that we have an absolutely reliable agent to control bleeding—an agent which may reduce the terrors of post-partum hemorrhage, and make its fatal termination an almost impossible event if applied at any time while power of reaction is not entirely exhausted.

The nozzle should be carried on the index finger into the vagina, while the opposite hand grasps firmly the uterine globe. The fingers in the vagina may be moved about freely to break up clots rapidly, there being sometimes a complete distention of the vagina with firm, hard coagula. The stream is kept up continuously, washing out as fast as the clots are loosened; the nozzle is to be carried to the os uteri, and directed into the orifice. If the coagula in the uterus are loose and not abundant, the force of the stream may be sufficient without carrying the finger into the uterine cavity, but if the hemorrhage has been great, and the uterus largely distended, it is better boldly to introduce the pipe, guarded by the finger, and moving it around gently, let it, with the aid of the stream, detach from the intra-uterine surface all shreds of membrane or small coagula which may be found adherent to the surface, and which, if not removed, will act as centres of coagulation. While this is going on, the hand upon the uterine tumor feels it steadily and, generally, instantly contracting, condensing itself into a firm, hard mass, receding completely into the pelvic cavity below the brim. The water passing from the vulva is soon observed to be free from color, and the hemorrhage is arrested. A uterus after such accident ought to be carefully watched, and compressed in the hand of the accoucheur or of an assistant until all probability of secondary relaxation is over.

Spencer Wells recently performed his nine hundred and fifty-fifth ovariectomy, in which he employed the bichloride of methylene as the anæsthetic. The bichloride has been employed in over 100,000 cases in England, without as yet a single evil result following its use.



**A NEW METHOD OF TREATMENT IN OPIUM INEBRIETY.**—Dr. J. B. Mattison, in a paper read before the American Association for the Cure of Inebriates, and published in the *Journal of Inebriety*, submits what he terms a "New Method of Treatment in Opium Inebriety." It is based on the power of certain therapeutical resources to control abnormal reflex sensibility, and accomplishes, largely, two cardinal objects, minimum duration of treatment and maximum freedom from pain. It consists in producing a certain degree of nervous sedation, and consequent control of general and reflex sensibility by means of the bromide of potassium, ammonium, sodium, or lithium, though reference is made especially to the *bromide of sodium*, and to its employment in *continued doses*, by which is meant its administration three times in twenty-four hours, at regular intervals so as to keep the blood constantly charged with the drug. Dr. Mattison lays particular stress on this method of administration. The salt should be given largely diluted with water, a drachm of water to a grain of the salt.

Granted a suitable case for treatment the plan may be summarized as follows: Opiate reduced, at once, to one-half or two-thirds usual quantity. Subsequent gradual decrease and withdrawal in seven or eight days. Mercurial cathartic, first night, followed by daily laxative enemata, or Hunyadi water. Bromide of Sodium, 60 grain doses, increased 30 grains daily, ter in die, in six or eight ounces of water, on empty stomach, continued five to seven days. Restlessness following opium abandonment—met by hot baths, 100° to 110°, ten to thirty minutes each, often as required. Bromide eliminated by diuretics—digitalis and nitre, and diaphoretics—hot and steam baths. Insomnia relieved by chloral, combined if need be, with Indian hemp or hyoscyamus. Diet exclusively milk and lime-water first three days of opium abstinence. Full diet resumed as soon as possible. Debility removed by generous living, general faradization, strychnine, iron, quinine, etc., with outdoor exercise and varied social enjoyment.—*Mich. Med. News.*

**COLOUR-SIGHT AND COLOUR-BLINDNESS.**—An interesting pamphlet on this important subject has just been published by Dr. Wolfe, of Glasgow, in which he gives the results of the inquiries of a commission formed of himself, Dr. Cumming, and Dr. Pickering. He discusses and, we think, very fairly meets Mr. Gladstone's views in regard to the colour-blindness of Homer. The defect of Homer, he thinks, was amblyopia from Egyptian ophthalmia, which is likely enough. That the human race has not lately developed the sense of colour seems to be demonstrated by the numerous differential terms and indirect references to various colours that appear in the old Greek and Hebrew writings.

The results of the Glasgow commission showed that there are in Glasgow 3 per cent. of colour-blind persons, whilst 6.5 per cent. see colours with difficulty. The importance of such statistics cannot be over-estimated, since the safety of the public, both in trains and on ships, depends on the recognition of red and green by the officials. The method of testing colour-blindness employed by the commission consisted in making the subject look at a given portion of the spectrum, name it, and pick out a piece of worsted, from a mixed bundle, of the same tint. It is somewhat remarkable that whilst stringent rules are adopted in all continental countries in regard to the testing of railway officials prior to their engagement, in England alone it is not considered requisite to do more than apply a simple test or two, though it is well-known how much is dependent on a correct appreciation of colour.—*The Lancet.*

**A NEW ANTISEPTIC.**—A new antiseptic agent has appeared in Germany, which, if the statements regarding it are true, is one of the most important yet discovered. It is a double salt of borate of potassium and sodium, and is made by dissolving in water equal quantities of chloride of potassium, nitrate of sodium and boracic acid, and evaporating to dryness after filtering. Its cost is about twenty-five cents a pound, and its use in foods, etc., does not in the least injuriously affect them, and gives no taste or smell to substances. It has been extensively employed already by butchers, sausage makers, tanners, etc., but its most important use is at present in the manufacture of butter and cheese from sweet milk. When butter is made from sweet milk in the ordinary manner, the milk must be kept very cold; when the "preserving salt," as it is called in German, is used, the milk may be kept at ordinary temperature without souring; the remaining sweet milk may be worked up into a superior quality of cheese. If fifteen grains of the salt are added for each quart of milk, the latter will keep sweet for at least a week. Fresh meat, game, etc., may be preserved by dipping it into a solution of one pound of the salt in six pints of water. When the meat is intended to be kept for a long period, it is rubbed well with the powdered salt in the proportion of one and one-half drachms to each two pounds of meat. In twenty-four hours the impregnation is completed, and it only needs to be dried. A piece of meat prepared in this manner in January, 1877, was in perfectly good condition in January, 1879. For pickling, the meat is prepared in the same manner, and then placed between layers of a mixture of two pounds of common salt, one-half pound of preserving salt and one-fourth pound of sugar. In this way the largest hams can be salted in four days. For preserving skins, from one-half to two-pounds is used, according to size. Eggs are placed for fifteen minutes in a solution of

one ounce of the salt in a quart of water. To preserve beer, wine, etc.; it is sufficient to rinse the bottles, previous to filling them, with a solution of the salt in the proportion of one to ten, and adding to the beverage itself eight grains per quart. For fish, lobsters, oysters, fruit and vegetables the preparation has also been used with the best success.

**TREATMENT OF EPITHELIOMA OF THE CERVIX UTERI.**—Dr. J. Marion Sims (*American Journal of Obstetrics*, July, 1879) describes his operation for this affection, illustrating the subject with carefully designed engravings. We give the conclusions of this valuable paper, referring the reader to the above named journal for the article in full:

“1. Do not amputate or slice off an epithelioma of the cervix uteri on a level with the vagina, whether by the *écraseur* or by the electro-cautery.

2. Excise the whole of the diseased tissue, even up to the os internum, if necessary.

3. Arrest the bleeding, when necessary, with a tampon of styptic iron or alum in cotton-wool.

4. Be careful not to apply the tampon with such force as to lacerate the excavated cervix uteri.

5. When the styptic tampon is removed, cauterize the granulating cavity from which the disease was excised with chloride of zinc, bromine, sulphate of zinc, or some other manageable caustic capable of producing a slough.

6. After the removal of the caustic and the slough it produces, use carbolyzed warm water vaginal douches daily till cicatrization is complete.

7. After the cure, put the patient on the use of arsenic as a protection against the cancerous diathesis, and urge the importance of examination every two or three months for the purpose of detecting the recurrence of disease.

8. Then if fungous granulations or knobby protuberances not larger than a pea are found, lose no time in removing them; and treat the case afterward with caustic just as in the first instance.

9. Almost every case may be benefited by operation, even when there is no hope of giving entire relief.”

Dr. Sims gives Dr. Reamy, of Cincinnati, credit for working out this method of operating independently, and publishing it about the same time. Dr. Reamy uses scissors, and endeavors to remove the entire growth in one piece; Dr. Sims excises the cervix piecemeal.

**STERILITY AS THE RESULT OF LITHOTOMY.**—In Dr. Parker's study of 131 cases of lithotomy in the *Transactions of the South Carolina Medical Association (Cin. Lancet and Clinic)*, he says, on the above point—

The relation which this operation bears to subsequent sterility is of great interest, for several reasons which readily suggest themselves, and it is a question by no means settled. It can only be done

by a close observation of a large number of cases. That it does produce sterility, in the great majority of cases, is well known. It is also reasonable to suppose that one mode of operating is more likely to produce it than another. Yet surgeons are not agreed upon this point. It would be a great triumph in surgery to determine the exact cause of sterility, and to devise some plan which, while avoiding such an unfortunate and unhappy result, would not lessen the chances of recovery and relief from so painful and distressing an affection. Unfortunately the information afforded in the history of these cases will not assist us much in arriving at any conclusions on this point. The result of the operations bearing on sterility or non-sterility have only been mentioned in a few cases. I allude to this point more particularly, because Dr. T. T. Robertson, of Winnsboro, calls attention to two cases of sterility, one in his own practice, the other in one of Prof. E. Gedding's patients; and Dr. Ogier mentioned to me that the same had occurred to one of those he had operated on, and he believed that it was nearly always attended by this effect. One of Dr. Crook's and two of Dr. Bartlett Jones' were also sterile. Professor F. M. Robertson's patient has several children; so have the patients of Drs. Miles and Daring and one of Dr. Campbell's. These cases were all bilateral or lateral operations, and three of them with the same instrument, yet the result was very different. How are we to explain these different effects of the same operation with the same instrument upon separate persons?

**ORIGIN OF THE STETHOSCOPE.**—One day as he (Laënnec) was crossing the court of the Louvre, he observed some children who, with ears applied to the two extremities of a long beam, were transmitting reciprocally the light sound provoked by the stroke of the finger against the opposite end. In the intermediate space no sound was perceptible. The careful observer reflected, and soon, like Archimedes, he was able to exclaim, “*I have found it.*”

Some time afterward, in fact it was in 1816, being consulted for a young woman who presented general symptoms of heart disease, in which percussion gave small results on account of the stoutness of the subject, the age and sex of the patient forbidding his listening directly with the ear, he remembered the children of the court of the Louvre. Immediately he took a paper copy-book, of which he made a roll closely pressed together, placed one end of it upon the chest of the young woman, applied the other to his ear, and found with pleasure that in that manner he could perceive much more clearly the beats of the heart. So a play of children and regard for modesty, were two facts which led to the discovery of medical auscultation.

Laënnec then modified this roll of paper, giving

it more firmness, limiting its length to a foot, its diameter to sixteen lines—smoothing the two extremities with a file. Then he made other experiments: He constructed a tubular cylinder of gold-beater's skin, which he filled with air by means of a spout, and of which the central opening was maintained by means of a support of pasteboard; he made an experiment with glass and metals; finally he stopped with a cylinder of light wood, pierced in its centre with a tube, expanded at the extremity in the form of a funnel. We have seen in our youth the original stethoscope of Laënnec. In truth, it had a size altogether useless and well adapted to terrify patients.—A. Chereau, in *Arch. Gen. de Med.*, July, 1879.—*St. Louis Courier of Medicine.*

**EXTRACTION OF BILIARY CALCULI.**—A remarkable case has been recorded by Dr. Anger, of Menilmontant, in which a hundred biliary calculi were extracted through the abdominal wall. The patient was a woman, sixty-three years of age. When first seen the abdominal wall was perforated by many fistulous openings in hard red indurated tissue, situated above and below the umbilicus. For thirty years she had suffered frequent attacks of hepatic colic, and in 1874 had an attack of jaundice. In April, 1876, a red painful prominence appeared just above and to the right of the umbilicus, and the swelling spread rapidly over the abdomen and to the right leg. The prominence ultimately burst with a sound like the opening of a champagne bottle, and watery matter, of fæcal odour, escaped. Soon afterwards small sloughs appeared on the lower part of the abdomen, leaving orifices through which many small biliary calculi passed. With a probe passed in through the highest opening many biliary calculi could be felt about five centimetres from the surface. This orifice was dilated by tents of laminaria, and through it more than a hundred calculi were extracted with dressing forceps. The other fistulous openings were enlarged, alcohol dressings applied, and all slowly healed. The patient's recovery was complete.—*Lancet.*

**OPIUM INEBRIETY—ITS TREATMENT AT FOOWCHOW, CHINA.**—Dr. Osgood (*Quart. Four. Inebriety*, June, 1879), has in a hospital during the past two years treated 800 cases of opium inebriety. His plan in general is: (1) The absolute and total discontinuance of the use of opium from the beginning of treatment. (2) A trusty attendant to be with the patient day and night for the first three days. (3) Chloral hydrate for the first three nights if required. (4) Good food, milk, raw eggs, brandy (in some cases), chicken broth. (The above to be taken in small quantities). (5) In diarrhoea, give two-drachm doses of a mixture of equal parts of tincture catechu and tincture of gin-

ger. (6) Vomiting will frequently yield to bismuth in fifteen-grain doses; and in some cases a single dose of calomel has acted like a charm. Ice is of advantage in some cases. (7) Throughout the entire treatment it should be remembered that the patient is below par, and requires tonics. Quinine and tincture of iron have a prominent place in our list. (8) The patient should expect to suffer more or less for the first three days, and should make himself a prisoner for that time. By the fourth day there is usually marked improvement. (9) Usually by the sixth day all desire for opium is gone. The patient then requires a change of air and surroundings, and tonics for a few weeks. Out of one hundred cases thus treated there was but one death, and that from apoplexy.—*Detroit Lancet.*

**A SIMPLE FORM OF BUTTON-SUTURE.**—In the January number of the *Glasgow Med. Journal*, page 59, for this year, we noted incidentally the employment of this form of suture by Dr. MacEwen, in a case of amputation of the leg, and we are led to refer to it again, as it does not appear to be so generally known as, from its efficiency and simplicity, it deserves to be. It consists simply of a disc, preferably of zinc, of about  $\frac{3}{4}$  inch diameter, and perforated by two holes, instead of one, as in the common form. Two wires are used for each stitch, one for each hole in the button, and these, when passed through, are twisted on each other. The suture is, of course, fixed at the other end in a similar way. If it be thought advisable to tighten or relax the stitch, the wires can easily be untwisted and fixed again. Zinc is a convenient material to employ. It corrodes less, and is less irritating than tin. The edge can be turned up should it press unduly on the tissues, or a half turn of the button occasionally may be sufficient. Dr. Ogilvie Will has brought before the notice of the profession, in the *British Medical Journal*, 21st June, 1879, a more complicated form of disc, the cost of which must be a great objection to its general employment. In his paper, and also in one of Mr. Lister's, "On Recent Improvements in the Details of Antiseptic Surgery" (1875), an account of the use of this kind of suture in surgery will be found, to which we refer for fuller details.

Dr. T. Grainger Stewart has discovered that when, during the administration of the tincture of the chloride of iron, functional derangements of the stomach and liver arise, with furred tongue, impaired appetite, headache, etc., these symptoms rapidly disappear upon adding one half grain of the chloride of ammonium to each minim of the tincture. He finds this combination notably useful in cases of heart disease accompanied by anæmia and debility.—*Boston Med. Journal.*

**CODEIA AS A SEDATIVE.**—No symptom is more distressing to a patient than frequent coughing, and none demands more judicious treatment on the part of a practitioner, if he would avoid undoing with his cough mixtures all the good he is attempting by his more general therapeutic measures. In phthisis the presence of anorexia makes us unwilling to give opium or morphia, and frequently when we do so we have reason to regret it. Many patients, especially gouty subjects and those who suffer much from derangement of the liver, are intolerant of opium and morphia. On account of these difficulties I have been led to employ codeia in such cases, in the hope that it might be of service, and it has succeeded beyond my anticipations. In phthisis it allays cough without disturbing the digestive system; and in the other class of cases I have found it tolerated when opium and morphia were not. I prescribe the drug in doses of a grain dissolved in syrup of tolu.—*British Medical Journal*.

**TREATMENT OF ULCERS.**—The method found most serviceable in the New York Hospital (*N. Y. Med. Journal*) has been a combination of that used by Lister with the india-rubber bandage of Martin. The ulcer is first washed with a 1-20 solution of carbolic acid, then covered with a piece of the "protective" oiled silk, over which is placed one or two larger layers of lint or felted paper, which has been previously dipped in a saturated solution of boracic acid. The whole is then covered with an elastic bandage, which is only changed when it becomes soiled by the discharge. Occasionally it is found better to take off the elastic bandage at night, but not the other dressing, which is then covered by a piece of impermeable tissue, such as thin gutta percha or waxed paper secured *in situ* by an ordinary bandage. In sloughy ulcers a layer of iodoform is put over the surface before applying the "protective." The rapidity of cure by the combination treatment has been found to be much greater than when either the Lister dressing or the rubber bandage is used alone.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—At a meeting of the Council on the 10th instant, Mr. Luther Holden of Gower Street, Bedford Square, Senior Surgeon to St. Bartholomew's Hospital, was elected President of the College, in the vacancy occasioned by the retirement of Mr. John Simon, C.B., F.R.S.; and Mr. J. E. Erichsen, F.R.S., of Cavendish Place, Surgeon to University College Hospital, and Mr. Erasmus Wilson, F.R.S., of Henrietta Street, Cavendish Square, were elected Vice-Presidents for the collegiate year. At this meeting of the Council, the recently elected members of it—Messrs. John Wood, F.R.S., Henry Powe and Jonathan Hutchinson made the neces-

ary declarations, and took their seats. The several professors and lecturers were re-elected.

**OBSTETRIC PRACTICE IN SIAM.**—Medicine, and particularly obstetrics, seems to be in the most primitive condition in this country. Labor cases are generally attended only by ignorant women. If there is an emergency, male physicians are called in, but these are quite as bad as the midwives, and rely chiefly on incantations and absurd compounds for producing relief. To hasten on the uterine contractions the abdomen is pounded and kneaded, or even jumped upon. After delivery a most painful ordeal has to be gone through with. The woman is placed as close as possible to a hot fire, and she is obliged to continue beside it for thirty days, suffering the agonies of a scorching heat and being only allowed hot water to drink. The custom is very firmly rooted, and no amount of persuasion will make the women do away with it. It has a certain scientific basis, from the Siamese standpoint, for it is believed that after parturition there is a diminution of the fire element in the system which causes the evolution of all sorts of bad humors.—*Archives of Med.*

**WHEN ARE INVOLUNTARY SEMINAL EMISSIONS PATHOLOGICAL?**—Dr. George M. Beard (*Med. Record*, June 14th, '79), says: (1) When they are followed by headache, languor, depression, nervousness and pain, local or general. (2) When, after long intervals, they occur several times a night, or a number of nights, in succession. (3) When the emissions are induced by slight reflex irritation or subjectively by mind acting on body. (4) When they accompany or follow acute or chronic disease and disappear with the disease. (5) When they take place in connection with any of the stages of impotence, and even when there is opportunity for perfect intercourse. (6) When the emissions occur at stool, or flow out with urine.

**OPENING OF DEEP ABSCESSSES.**—John Ashurst, Jr., M. D. (*Med. News and Library*, April, 1879), advocates the method of opening deep abscesses among the muscles as practiced by the late Mr. Hilton. This plan consists in making a small incision through the skin and superficial fascia, and then thrusting a blunt grooved director through the intervening tissue until the abscess cavity is reached. Then dressing forceps are introduced closed along the director and opened and then withdrawn, with a twisting motion, thus dilating and lacerating the parts so as to prevent closure before the abscess is healed.

**TREATMENT OF ASTHMA.**—Dr. S. G. Armor says: In the treatment of asthma, the iodide of potassium is *the* remedy. But there is a class, in which there is an inflammatory element, that not

unfrequently resists that treatment. For these he is in the habit of prescribing a preliminary treatment of divided doses of the bi-chloride of mercury, one-sixteenth to one-twentieth of a grain, for two or three weeks.

Under this drug the exudation becomes less viscid and tenacious, and the subsequent exhibition of the iodide of potassium becomes more efficient. Dr. Armor gave an account of two very stubborn cases, the cure of which was brought about under this plan.—*Med. News.*

**CHRONIC BRIGHT'S DISEASE.**—D. N. Guice, in a communication to the American Bi-weekly, gives the history of a case of chronic Bright's disease apparently cured by the use of iodide of potassium. The patient, aged 50, had suffered from malaria, but no history of syphilis was given. He became affected with Bright's disease, with all the characteristic bad symptoms. His urine contained a large amount of albumen, together with granular and hyaline casts. Iodide of potassium was ordered in doses of grs. v. three times a day, and this was gradually increased to grs. xij. during the course of treatment. The symptoms slowly improved, and by the end of six months the patient appeared in every respect well. Iron and bitter tonics supplemented the potash. Five other cases of the successful use of the iodide in this disease have been reported.—*N. Y. Med. Record.*

**LARGE DOSES OF IRON IN HEART DISEASE**—In the *Practitioner*, Dr. T. Grainger Stewart finds improvement follow the use of cardiac tonics, particularly iron, in disease of the heart characterized by pallor, restlessness, headache, slight dropsy and breathlessness. Dilatation and partial failure of the heart's action are usually found with these symptoms. He gives the tincture of perchloride sometimes to the amount of twenty minims every two hours, more frequently every four hours, continuing its use for days together. In many cases improvement follows very speedily. To obviate the gastric derangement so often following upon the use of iron, he combines the chloride of ammonium with it, half a grain to each minim of the tincture. The combination renders the administration of iron possible in patients who otherwise can scarcely use it; indeed, in no other way can iron be administered in sufficient quantities to afford relief, and in many instances to save life.—*Western Lancet.*

**DR. RICHARDSON'S STYPTIC COLLOID** (*Hospital Gazette*).—

R. Acidi tannici, ʒii ;  
Alcoholis absoluti, fʒss ;  
Ætheris, fʒiiss ;  
Collodion, q. s. ad fʒxij.—M.

**A CASE OF DOUBLE UTERUS & SUPERFETATION.** Dr. Sotschawar, of Moscow, reports the case of a woman, aged twenty-six, to whom he was called on account of hemorrhage. Upon examination he found two vaginæ, each leading to a distinct uterus. The hemorrhage proceeded from both uteri, and was very considerable. After some manipulation an embryo of about one month was abstracted from the left uterus, and three days later a fetus of three months from the right uterus. The observer asserts that this is the third case of the kind known to science. It may be remembered that Dr. Fordyce Barker, of New York, has had one such case in his experience.—*Medical Record.*

**IS PHTHISIS CONTAGIOUS?**—Dr. Wm. Porter of St. Louis, propounds the following questions, to which he invites answers from all sources: 1. Do you believe that phthisis is in any sense or degree contagious? Upon what practical evidence do you found your belief? 3. Please state the principal features of the case you have observed which have direct bearing upon the theory.

**A DARING OPERATION.**—An operation was recently performed by Péan, of Paris, which for boldness is perhaps unique. The patient was suffering from cancer of the pyloric extremity of the stomach, completely blocking up the passage. He removed the pylorus and stitched the severed end of the stomach to the duodenum. The patient died on the fifth day.

In consequence of the illness of Prof. von Ziemssen, who has undertaken personally to write the volume on "Diseases of the Skin," vol. 9, of "Ziemssen's Cyclopædia," Messrs. Wood and Co., the publishers, have issued a notice to subscribers that it is probable that this volume will be delayed for some time to come.

**HYDROBROMIC ACID IN STOMACH DISEASES:**—Hydrobromic acid in the proportion of half a drachm to an ounce of water, four times a day, is said to arrest the vomiting attendant on ulcer of the stomach, and to enable the retention of solid food. This remedy may also prove of value in controlling nausea from other causes.

**A CONGRESS** of Italian physicians which met at Pisa some time ago came to a very probable conclusion that suicide was much promoted by the reports of cases which appear in the public newspapers.

**A FINE** and life-like portrait of the late Mr. John Hilton has just been presented by his widow to the Council of the Royal College of Surgeons. It is by Mr. Herberi Barraud, and is a great success.

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## PUERPERAL MORTALITY IN HOSPITALS.

"Taking as his basis the figures obtained in the hospital of Lariboisiere, for the years 1854 to 1878, and in the hospital Cochin for 1873 to 1877, M.

Beurman has published an interesting work, in which the causes of mortality in parturients are studied. The author commences with a description of the arrangements of the Lariboisiere hospital, and the system of ventilation employed in it. He has ascertained the number of labours which occurred from 1854 in the ward of Sainte Anne, in this hospital, as well as the number of deaths resulting. He divides these deaths into three classes: 1st. Deaths from accidental causes; 2nd. From puerperal causes, consecutive on complicated labours; 3rd. From puerperal causes consecutive on simple labours.

In the first year of the Lariboisiere, this hospital, quite new, and constructed in the most perfect manner, in accord with the precepts of hygiene, gave a return of mortality of one woman in every 11.8 delivered—horrible figures, which have not been equalled in any succeeding year in that ward, in the same rooms; the proportion from 1874 to 1878 has much decreased. It certainly cannot be admitted that the nosocomial, (that is, overcrowding of sick) influence had reached its maximum in a completely new hospital; it appears, then, that the congregating of a certain number of parturients in a limited space, and an atmosphere polluted by the accumulation, are not the sole causes of the mortality of lying-in hospitals. This mortality results from various factors, among which the social classification of patients plays a chief part.

In order to reduce as much as possible the mortality of parturients in his clinique of Lariboisiere, M. Lively employs and recommends an exquisite cleanliness, as well as hygienic precautions both numerous and necessary; the result has been that the puerperal mortality has notably descended, and the figures cited by Mr. Beurman show that residence in the hospital has ceased to be pernicious. The mortality has descended to one in 145, in 1877, and one in 155, in 1878, in simple labours. These figures closely approximate those obtained in the general population, and it may be hoped that they will yet improve.

In the wards of the Maternité de Cochin, isolated almost completely from the rest of the hospital, and served by a special staff, M. Polaillon has obtained from 1873 to 1877 even better results, so that without it being understood that an hospital is a place favourable to parturients, it may yet be

said that its bad influence has been exaggerated, and assuredly the treatment by means of ignorant midwives, by whom it has been proposed to supplant them, would not be advantageous. The investigations of Beurman prove this, and the fact would be evident, from the moment these women could no longer free themselves from unfavourable cases. The evil influence of the hospital depends on two causes, contagion and misery. We may contend with advantage against the former, by antiseptic means, equally in the wards of a maternity, as in those of surgery. As regards misery, it surely should largely augment the mortality; all the world knows what are the moral and social conditions of the majority of women entering maternities.

#### NEW ENCYCLOPÆDIA OF MEDICINE.

We have to thank the publishers for an advance first number of the above projected publication, of which Dr. Eulenburg is the chosen editor. It is to be published in Vienna, and we are much pleased to see that it is printed, not in the old barbarous sight-destroying gothic characters, but in excellent clear Roman type, and on very good paper. The editor promises that the work will be completed within four years, in ten volumes, each containing forty-five to fifty sheets of sixteen large 8vo pages; consequently each volume will contain only 720 or 800 pages. This may seem a very formidable announcement to English and American readers, who find it not unfrequently a heavy task to get over a volume of 300 or 400 pages; but our German cousins are endowed with thorough courage, and far superior patience. In order, however, to moderate the fears of subscribers and intending readers, the work will be issued in parts of sixty-four or eighty pages each, at the rate of three parts monthly. The price of each is to be ninety kreutzers, or two and sixpence sterling.

The contributors number no less than ninety different writers, twenty-nine of whom are residents of Berlin, twenty-one of Vienna, ten of Greifswald, and five of Breslau; the remaining fifteen belong to other places. It is truly surprising, to find that a single Prussian town, such as Greifswald, with a population of about 14,000, should furnish no less than ten medical practitioners, able and willing to contribute to the pages of so important a publication. Our city of Toronto, with a population of

75,000 or 80,000, and two flourishing medical schools, should, in the same proportion, furnish over fifty encyclopedists. But we dwell in *sleepy hollow*, and it is impossible to guess when we may waken up.

The First Part, now before us, begins the letter "A," disposing of only eighteen items, out of a total under this one alphabetical division, of 320. Among the above eighteen articles, there is one on "Abdominal Typhus," by Dr. Zulzer, of Berlin, of which we can safely say, that we have never in the like amount of space, met with a more clear or comprehensive detail of valuable facts, or of valuable instruction, and if even only a moderate percentage of the other contributions, in subsequent issues, be found of equal merit, Dr. Eulenburg will have good reason to feel pleased with his arduous enterprise.

As the information may be interesting to some of our readers, who have not had opportunities of close acquaintance with encyclopedic medical literature, we abstract, in condensed form, from Dr. Eulenburg's preface, the following historic notices of this class of publications within the present century.

1st. The "*Dictionnaire des Sciences Medicales*," by Alard, Alibert, Roger, Chassier, Cuvier and others, in 60 volumes, Paris, 1812-1822.

2nd. *Abridgment* of the above, in 15 volumes, Paris, 1821-1826.

3rd. "*Dictionnaire de Medicine*," in 21 volumes, Paris, 1821-1828.

4th. "*Encyclopædie der Medicinischen Wissenschaften*," in 13 volumes, Leipsic, 1830-1834.

5th. "*Verein deutscher Aertze*," homœopathic, 14 vols. Leipsic, 1835-1848.

6th. "*Encyclopædische Wörterbuch der Medicinischen Wissenschaften*," 37 vols. Berlin 1828-1849.

7th. "*Encyclopædie der gesammten Medicin*," 6 vols. and 4 supplements. Leipsic, 1841-1846.

But here we must rest, abstaining from the dishing up of several small fries, which have graced the tables of the lovers of *sauer kraut*.

As, however, we began with the French omnium-gatherers, we may as well close up with a monumental record of a couple of their lingering labors, to wit:—

"*Dictionnaire encyclopedique des sciences medicales*," by Dechambre, and "*Nouveau dictionnaire de medicine et de chiurgerie pratiques*," by Jaccoud.

We are told that both these, after 15 years of parturient agony, are still undelivered. Jaccound's bantling has, at the end of 26 volumes, reached the letter P. *Quod est prodigiosus.*

*Sat bene, si sat cito,* should be the motto of every projector of a scientific encyclopedia, and so rapid is now the progress of every department of human knowledge, that we much doubt if even before the expiration of Dr. Eulenburg's four years of promised collaboration, very many of the articles of the first and second will not have become so antiquated as to require rehabilitation; but such works are not without their posthumous value, as, like fixed mile-stones, they tell the traveler of his progress.

#### A NEW PRESERVING FLUID.

The Curator of the Anatomico-zoological Museum in Berlin, Mr. Wickersheimer, some time ago invented a new and valuable process for preserving dead bodies, for which he obtained a patent. At the instance of the German Government, he has been recently induced to withdraw his patent, and now publishes his process to the world. We give the following translation from the original official communication, kindly furnished us by Dr. Adolf Alt, of this city. Corpses, human, as well as those of animals, when impregnated with the fluid, retain their *shape, color* and *flexibility* completely. After many years, they may be made use of for scientific dissections or legal investigations.

"The curator of the anatomico-zoological museum at Berlin, Mr. Wickersheimer, having invented a new process for preserving corpses, plants, and parts thereof, and having been induced by us to resign his right as patentee for the German empire, Mr. Wickersheimer's process is herewith given over to the public, etc.

The preserving fluid is prepared in the following way: In 3,000 grammes of boiling water dissolve 100 grammes of alum, 25 grammes of salt, 12 grammes of saltpetre, 60 grammes of potassium, and 10 grammes of arsenious acid. When cool, filter. To 10 liters of this colorless and odorless fluid, add 4 liters of glycerine, and one liter of methyl-alcohol. With this fluid the bodies are impregnated, or are preserved in it. For embalming, 1½ liters will do for a child of two years; 5 liters for an adult.

The following is the manner in which the in-

ventor embalms human bodies: He first injects the body with the fluid, and lets it remain for several days in the same. He then rubs the body, dries it, and wraps it in a linen sheet or oilcloth, soaked with the fluid, and preserves it in air-tight compartments."

#### COLLEGE OF PHYSICIANS AND SURGEONS OF QUEBEC.

The semi-annual meeting of the Provincial Medical Board was held in Quebec on the 24th of September. The following members were present: Drs. Rottot, David, Marsden, Howard, Gibson, Scott, Gilbert, Paquet, Trudel, Rivard, Wells, Paré, Ladouceur, Lachapelle, Collet, Perrault, LaRue, Michaud, Ahern, Ross, Lafontaine, Sewell, Lemieux, Gingras, F. W. Campbell, Dagenais, Marquette, Belleau, and De St. George.

Dr. Rottot took the chair, and the minutes of the last meeting were read and adopted.

The report of the recent matriculation examiners was read and adopted. Thirteen candidates were admitted to the study of medicine; four failed in part, and five were rejected.

Dr. Gibson brought before the notice of the Board the case of Dr. Prime, of Brome, who had been fined for selling liquor against the provisions of the Dunkin Act. It was claimed that Dr. Prime as a physician, had a right to keep liquor, and sell it for use in cases of sickness. The Dr. desired to carry the case to the Supreme Court of Canada, and thought it to be the duty of the College to assume the prosecution of the case in the interests of its licentiates, whose rights had been assailed. The case was referred to a special committee consisting of the President, Drs. Howard and F. W. Campbell.

On motion, the application of Dr. A. M. Ross, a member of the College of Physicians and Surgeons of Ontario, was received, and the license to be granted if his qualifications were found correct.

Mr. Gaboury, a medical student of Michigan University, applied to have his preliminary examination in that University recognised by the Board, but the application was refused on the ground that the examination was not an equivalent to that of the Provincial Medical Board.

The application of Dr. Keyes, M.C.P.S., O., of Georgeville, Que., for the license, was also refused



on the ground that he was licensed as an Eclectic in Ontario, and the Board did not recognize an Eclectic diploma.

The following gentlemen received the license of the College: Drs. Gosselin, Grenier, Cote, Rouleau, Routhier, Couillard, and Auger.

The name of Dr. W. L. Page, whose name had been omitted from the register, was registered as a member of the College.

The Treasurer reported on the state of the finances, which was, all things considered, satisfactory.

It was resolved that the College will for the future grant its license only to those who, since the passing of the new Medical Act, shall have passed the preliminary examination of the Provincial Medical Board.

The question of the legality of the diplomas of Victoria University in Quebec, was raised, and the opinion of Mr. Pagnuelo, barrister, of Montreal, was read, in which he declared that the University had no legal standing in Quebec. The President was further authorized to consult legal counsel in Ontario in regard to the matter.

The registrar was instructed to notify all who had neglected to pay their annual assessment to do so at once, and that legal proceedings would be taken against all who neglected to comply. The President was also authorized to take legal proceedings against all medical men now practicing in the Province without being registered.

A committee was appointed to draft a code of by-laws; also a tariff of fees was submitted and approved, and the Secretary was authorized to get it printed, sanctioned by the Lieut.-Governor in Council, and published in the *Official Gazette*.

The following examiners were appointed for next meeting:—Dr. Scott, Anatomy; Dr. F. W. Campbell, Surgery; Dr. Gilbert, Medicine; Dr. Trudel, Midwifery; Dr. Lachapelle, Physiology; Dr. Rousseau, Materia Medica; Dr. Badeaux, Botany; Dr. Paré, Medical Jurisprudence; Dr. Ahern, Chemistry and Hygiene.

#### MEDICAL ELECTIONS.

The general quinquennial election of members of the Medical Council of Ontario will take place on the 2nd Tuesday in June, 1880, and the first meeting of the new members elect has been fixed

by by-law of the retiring Council for the second Tuesday in July 1880. Already candidates are bestirring themselves in the different territorial divisions, and some have publicly announced themselves as in the field. In the "Saugeen and Brock Division," Dr. H. P. Yeomans of Mount Forest has received the promise of a large and influential support, and if elected will make a most excellent representative. Dr. H. C. Burritt of Peterboro, and the present member Dr. Herriman, are in the field for the representation of the "Newcastle and Trent Division," and there is promise of a lively campaign in that constituency. They are both good men. The name of Dr. Turquand of Woodstock is favorably mentioned in connection with the "Gore and Thames Division," now represented by Dr. D. Clark, medical superintendent of the Asylum, Toronto. Dr. Turquand was a member of the Council from 1866 to 1869, and if elected his experience will be of great service in the new Council. Dr. Allison the present able and faithful representative of "Kings and Queen's Division" has announced himself as again in the field, and we trust there will be no opposition to his return. We have had up to this time no further reports, but we believe that the majority of the old members are up for re-election. We trust that the electors will see to it that the candidates are right on the question of increased territorial representation. Now is their opportunity if they wish to secure their rights in this respect. The colleges and corporate bodies, have a representation of *eight* members on the Council board; the homœopaths, with a constituency of about 50 members, *five*, while 1700 medical men of Ontario have a representation of *only twelve*. The territorial members should, in all fairness, be at least double the present number. They have a large interest in the Council; they contribute the principal share of the funds for its support, and should have a larger voice in the management of its affairs.

We trust that our friend Dr. Henwood, the representative of the "Erie and Niagara Division," and the champion of increased territorial representation, may be re-elected, and thus enabled to carry forward to its legitimate conclusion, this most desirable reform in the medical Council of Ontario.

STUDY OF THE EYE:—Dr. Adolf Alt, of this city, being at present engaged in the study of the

development of the human eye, desires us to state that he would be very glad if any of his professional brethren would send to his address, either in dilute alcohol, or in Mueller's hardening fluid, any embryo, up to the sixth month, they have no other use for. He would also take the opportunity of thanking those gentlemen who have, already, kindly furnish him with some specimens.

**OVARICTOMY** :—Dr. Rosebrugh, of Hamilton, has recently added two more successful cases of ovariectomy to his very creditable record of successful cases. He has had four cases, all successful, since the publication of his article on ovariectomy, in this journal, last year. His recent operations were done, we understand, under the carbolic acid cloud, and Lister's antiseptic dressings. We hope soon to present our readers with a brief history of the recent cases.

The death of Geo. W. Callender, of St. Bartholomew's Hospital, London, Eng., F.R.S., etc., is announced. He died on board the steamship Gallia, which sailed from New York on the 15th of October. He was returning from a trip to America.

**THE ALIENIST AND NEUROLOGIST** :—Under the above title, Dr. C. H. Hughes, of St. Louis, proposes to issue, about the 1st January next, a "*Quarterly Journal of Practical and Scientific Psychiatry and Neurology*," in which "the proper management and care of the Insane, both within and without asylums," will receive full consideration. The Journal, Dr. H. states in his prospectus, "will be conducted upon the idea that psychiatry and neurology, like the study of the vascular system, are essential parts of the trunk, rather than special branches of general medicine."

Dr. Hughes is a gentleman of long recognized distinction, and of ample experience, in the specialty of alienism, and we have good reason to anticipate for his Journal a successful and useful career. Throughout the Western States his reputation as a medico-legal expert is very high, and he is regarded by all the members of the specialty of psychiatric medicine as one of its talented and energetic members. The annual subscription will be five dollars.

**WHAT IS MALARIA?**—During the present year some experiments have been made at Rome by Signor Tommasi of Rome and Prof. Kiebs of

Prague, which promise to be more fruitful than any hitherto recorded. They spent several weeks in the Agro Romana and made repeated examinations of the lower strata of the air, of the soil, and stagnant waters, and succeeded in isolating a microscopic fungus, specimens of which placed under the skin of dogs caused distinct and regular paroxysms of intermittent fever.

**A RARE AND DELICATE OPERATION** :—We observe from the *Port Hope Guide*, of the 20th ult., that a "rare and delicate operation" was recently performed by Dr. Hamilton, assisted by two of his medical confrères, of that town. The operation consisted in "paring the edges of a cleft palate, and bringing the parts together with sutures. A small *m scle* on each side of the palate was then divided so that the parts might be set at rest while healing went on." Truly wonderful, but true! It is a pity that men of such transcendent abilities have not a larger field to labour in. O, Tempora! O, Mores!

**DEATH FROM THE INHALATION OF ETHER** :—A case of sudden death from the inhalation of ether, occurred at Aylmer, Ont., a few weeks ago. The ether was administered by Dr. C. W. Clark, of that village, to a lady, for the purpose of extracting a tooth, and scarcely an ounce had been used. An inquest was held by Dr. P. W. McLay, coroner, and the verdict agreed upon was, that the deceased came to her death in consequence of paralysis of the heart, caused by the inhalation of ether.

**IMPROVED BATTERY FLUID** :—The following battery fluid will keep the metals bright if the zincs are first amalgamated. To the ordinary battery fluid, which consists of sulphuric acid, one and a half ounces, bichromate of potassium, one and a half ounces, to the pint of water, add half a drachm of the bisulphate of mercury.

**ICE AS A VEHICLE FOR MEDICINE** :—Dr. Edwyn Andrew (British Medical Association), suggests the use of ice in conveying medicines for maladies of the throat and stomach, and especially in cases of hemorrhages, where the drugs may be frozen.

**PRESENTATION**.—Dr. Hill, of Ottawa, has been presented with an address on the occasion of his retiring from the position of consulting physician to the staff of the R. C. Hospital, Ottawa.

**TORONTO SCHOOL OF MEDICINE ANNUAL DINNER.**—The annual dinner of the Toronto School of Medicine. was held on the 7th ult. In addition to the Faculty of the school and the students there were present as invited guests, Rev. Dr. Nelles, (Victoria College), Mr. Goldwin Smith, Mr. Mayor Beaty, Prof. Croft, Dr. Workman, Prof. Wright, Dr. Geikie (Trinity Medical School), Rev. Dr. Potts, Dr. Strange, M.P., Mr. Howells (United States Consul), Dr. Macdonald (Hamilton), Dr. O'Reilly (General Hospital), Dr. Clark (Insane Asylum), Dr. King, Dr. Burns, Dr. Riddel, Dr. James Ross, Dr. McConnell (Thornhill), Dr. McLaughlin, M.P.P., Dr. Rae (Oshawa), and others.

The usual after dinner toasts, speeches and songs, common to festive occasions, enlivened the proceedings. Before the toasts were commenced the secretary read letters of regret received by prominent gentlemen who were unable to be present, and also the following telegram from the medical students of Kingston, who, it was said, were holding their annual dinner the same evening.

The students of the Royal College, imbued with that fraternal feeling which characterizes the generous medical student the world over, extend the right hand of fellowship to their brothers in Toronto. The position taken by the Canadian medical student at home and abroad, affords reason for wide and sincere congratulation. May the spirit of generous rivalry for excellence in our profession continue to characterize our schools, and may the lustre of their reputation be untarnished by anything having even the semblance of dishonour."

The "active militia" was responded by Dr. Thornburn; the "Dominion and Local Legislators" by Drs. Strange, M.P., and McLaughlin, M.P.P.; the "Mayor and Corporation" by Mayor Beaty; "The Universities of Toronto and Victoria" by Dr. Nelles, Dr. Richardson, and Prof. Croft; and the "Sister Institutions" by Mr. Goldwin Smith and Dr. Geikie. Mr. Smith, in his remarks, said he would like to see reciprocity of medical registration between this country and Great Britain. Dr. Geikie conveyed to the Toronto School the hearty congratulations of the faculty and students of Trinity Medical School, and wished the institution all success in the future. Among the other toasts that followed were the "College of Physicians and Surgeons," "Toronto General Hospital," "Graduates," "Freshmen," "Ladies," and "The Press."

**PROTECTION OF THE PUBLIC.**—In another column will be found an answer to the queries propounded by a correspondent in our last issue, by the Presi-

dent of the Medical Council. We are very much pleased with one remark especially, made by the President in his letter in regard to protection, viz., "that the aim of the Medical Act was simply the protection of the lieges," or in other words the protection of the public and not the profession. It is exceedingly unwise and impolitic for medical men, who, as members of a learned profession, are distinguished for their unselfishness and devotion to science and the good of their fellow-men, to be constantly harping about protection in their professional pursuits. Let it be understood and constantly urged that it is the public that requires protection and not the profession, and that in the interest, and for the safety of the public, all ignorant and uneducated pretenders and quacks should be put down. In that view the Legislature and the thinking portion of the public will join, and the profession may rest assured their efforts will be crowned with success. In protecting the public they most effectually protect themselves.

Dr. Craik, Prof. of anatomy in McGill Medical College, Montreal, was dangerously poisoned recently by a dissecting wound.

A teaspoonful of lime water with two teaspoonfuls of milk, and a small piece of ice given every fifteen minutes for about two hours, is an excellent remedy for irritable stomach.

### Reports of Societies.

#### NEWCASTLE AND TRENT MED. ASSOCIATION.

The third regular meeting of the Newcastle and Trent Medical Association was held at Colborne on the first of October, 1879. The following gentlemen were present: Dr. Herriman, President; Dr. Willoughby, Vice-President; Drs. Hamilton, Burritt, Ruttan, Halliday, McCrea, Richards, Thornburn, Powers, Fife, McDonald, and Douglas.

The subject of a uniform tariff of charges for this territorial division was the first for discussion, and the following committee was appointed to form a tariff and report at next meeting: Drs. Burritt, Hamilton, Waters, Willoughby, Ruttan and McCrea.

Moved by Dr. Hamilton, seconded by Dr. Willoughby, that the constitution be so amended as to admit non-medical men in the division, as honorary members.—Carried.

On motion, Prof. Haanel of Victoria College, was elected an honorary member.

Some discussion then took place in regard to the Ontario Medical Council, in order to elicit the views of intending candidates for the membership.

Dr. Burritt as one of the candidates said he was happy of having an opportunity of explaining his views, which he did very fully, pointing out where he thought the medical act could be amended advantageously, where the working of the Council in many respects could be improved, and the profession better protected from quackery than they were at present, &c., &c.

The President expressed himself pleased at the increasing interest taken in the medical Council, and although he had not thought he was coming to an election meeting, was quite ready to defend the action he had taken in the past as a member of the Council, and to explain his views with regard to the future. He gave the reasons why he had supported certain measures and why he had opposed others, stated that he would, if elected, endeavor to promote the interests of the general practitioners as much as possible, &c.

Dr. Willoughby introduced a patient from whom he had removed an enlarged thyroid gland weighing a pound; patient was now in good health; previous to the operation breathing was difficult, which rendered any exertion almost impossible. He also showed a specimen of the lower two-thirds of the femur, composed entirely of new bone enclosing the old shaft.

Dr. Ruttan showed a glandular tumor of the parotid, of large size, removed by him from an aged patient. The Dr. explained the nature of these growths. They were called glandular or adenoid tumors from being similar in structure to the glands in which they occurred, and if not deeply seated, easily removed by enucleation as they were encysted. In such cases there is little hemorrhage and little or no danger of wounding the portio dura, but if the tumor is large this nerve cannot be saved. In this particular case the tumor was removed by making a V shaped incision beneath the ear and another from below; the flaps were then raised and the tumor enucleated by the finger, from behind forwards, and from below upwards. There was very little hemorrhage—only one small artery requiring ligation. Owing to the large size of the tumor the portio dura was necessarily divided.

Patient died on the eleventh day after the operation, but as she was aged and exhausted this result could not fairly be attributed to the removal of the tumor.

The next subject for discussion was that of the treatment of typhoid fever, introduced by Dr. Ruttan. The treatment he was about to describe, and which had been used by himself with great success for two years, might be called the German or anti-pyretic method. The first indication is to reduce the temperature—by the application of cold and by giving certain medicines which have the power of lowering temperature; for if it is kept down during the first week, it will not rise during the second or third; should it have been neglected during the first week much may still be done by this treatment. Say the patient is seen with a temperature of 103°F.—free the bowels by administering as the Germans would—eight grains of calomel every eight hours until the desired effect had been obtained, or if preferred, give hydrarg. cum. creta, or pil hydrarg., then put the patient in a bath at a temperature of 68°F. (for old people and children 75°), temperature of the room should be the same; allow him to remain in the bath 5 or 10 minutes (fat people requiring a longer time than lean), then rub him dry and put him back to bed and give digitalis or veratrum viride. The nurse should be furnished with a self-registering clinical thermometer, and instructed how to take the temperature, and directed that if it rise to 103° to repeat the bath. After two or three days of this treatment, give thirty grains of quinine at one dose, or at two doses within half an hour of each other. The next day instead of a temperature of 105° or 106°, it will be down to 100°, and will likely remain so for 48 hours. If it rise repeat the bath and the dose of quinine. This will not be necessary more than two or three times when the case will run on without any further treatment. For complications the usual remedies should be resorted to. Diet should be milk, eggs, beef tea, sago, rice, arrow-root, &c., with stimulants as required.

Dr. McCrea asked what was the dose of digitalis employed.

Dr. Ruttan said two grains of the powder every three or four hours until it produced a decided effect. Veratrum viride must be given so that it will produce nausea in the course of twelve hours. The medicines are only aids to the bath; get down the

temperature first, by the bath and digitalis, then give a large dose of quinine about every second day according to the temperature. He uses pil. hydrarg., instead of calomel, night and morning until the bowels are freely moved. The Germans give quinine with a view of killing the bacteria, which they believe produce the disease.

Dr. Hamilton stated that he had not adopted this treatment. This much could be said about the German treatment, that it was never so successful in America as it had been in Germany. In Vienna it is not used as enthusiastically as formerly, where the routine treatment is to put the patient in a room at a temperature of 70°F, on a hard bed covered by a sheet. He also read statistics from the Bellevue and Massachusetts hospitals, which showed an increase in the death rate under this treatment. If in a case, the temperature rose to 106° or 107° he would use the cold baths, but only as a last resort.

Dr. Herriman used quinine in large doses, he gave it even when the fever was high, or when delirium was present, and with the best results. In small doses quinine excites the patient, and thus acts injuriously. Prof. Loomis says in quinine we have a remedy which arrests the movement of the red corpuscles, and he gives it not only in this fever but also in pneumonia.

Dr. Burritt stated that he used large doses of quinine with cold sponging, successfully. Had great faith in twenty or thirty grain doses of quinine reducing temperature, not only in this but other diseases.

Dr. Fife was much in favor of warm baths—had not used quinine in these large doses—agreed with Dr. Herriman that quinine in small doses acts as a brain stimulant. In wakefulness or delirium he gives large doses of bromide of potassium with hyoscyamus.

Dr. McCrea gives warm baths and diet of plenty of new milk. Had noted that if patients do not take nourishment freely, the result was likely to be fatal.

Dr. Herriman showed a specimen of cancer of the pancreas with adhesion and ulceration into the stomach, and cancerous disease of the pylorus, and gave a very interesting history of the case.

Dr. McDonald was requested to prepare a paper on gun-shot wounds for next general meeting, to be held in Port Hope on the first Wednesday in February.

## Books and Pamphlets.

THE ADVANTAGES AND ACCIDENTS OF ARTIFICIAL ANÆSTHESIA,—By Laurence Turnbull, M.D., Ph. G. Philadelphia: Lindsay & Blakiston. Toronto: Willing & Williamson.

This is a compact little work in 322 pages octavo, which should be in the hands of every physician or surgeon. The merits and demerits of every anæsthetic at present known, or used, are freely and candidly discussed, and most valuable instructions as to their proper administration are given. Numerous neat wood cuts are presented, illustrative of the physiological action of these drugs, and of the several methods of their exhibition. An interesting and profoundly instructive tabular exposition of 160 cases of death from chloroform is presented in connection with the chapter on that subject. The columns of this table show "the date of exhibition, the name and sex, the reason for administration, the time of death, the quantity employed, the apparatus, the administrator, the condition of the patient, the symptoms, the cause of death, and the *post mortem* appearances." Though this table must be but a fractional representation of the total cases of death from chloroform, its perusal cannot fail to prove admirably instructive.

(1) EYE-SIGHT, AND HOW TO CARE FOR IT—By George T. Harlan, M.D.

(2) LONG LIFE, AND HOW TO REACH IT,—By J. G. Richardson, M.D. Philadelphia: Lindsay & Blakiston. Toronto: Willing & Williamson.

Mankind have a natural curiosity to know the structure and functions of the human frame, and the attempt to teach such knowledge to the public at large is more rational and useful than the nature and treatment of disease. A slight knowledge of the structure and function of the living machine can do no harm in any case, and may not seldom enable the popular student of this class of knowledge to ward off diseases by prudent precautions and attention to the laws of hygiene and physiology. It is of course impossible to condense in these epitomes under review full directions for the attainment of the several objects treated of; the authors have, however, taken great pains in their endeavors to enlighten the public, and we trust they may be rewarded by a wide circulation.

POCKET THERAPEUTICS AND DOSE Book:—By Morse Stewart, Jr., B.A., M.D. Second Edition, revised and enlarged. Detroit: Geo. D. Stewart. Cloth, \$1.00.

**POSOLOGICAL TABLE**:—Including all the Official and the most frequently employed Unofficial preparations. By Charles Rice, Chemist, N. Y. New York: Wm. Wood & Co.

The above Pocket Manuals will be found very convenient for those requiring aids of this kind. They are the best of the kind in the market.

**MEMORANDA OF POISONS.** By Thomas Hawkes Tanager, M.D., F.R.S. Fourth American, from the last London edition. Philadelphia: Lindsay & Blakiston. 1879. Toronto: Hart & Rawlinson.

This work will be found convenient and valuable both to the student and practitioner. It is a very "complete manual of toxicology, as far as it goes, showing at a glance the treatment to be adopted in each particular instance of poisoning to which a medical man is liable to be summoned."

**FIRST STEP IN CHEMICAL PRINCIPLES.** An introduction to modern chemistry, intended especially for beginners. By Henry Leffman, M.D., Lecturer on Toxicology in Jefferson Medical College, etc., etc. Philadelphia: Edward Stern & Co. Price, 50 cents.

This work embraces the substance of lectures which the author is in the habit of delivering, and appears to us very plain, easy of comprehension, and well calculated to aid the student in the commencement of his studies.

**THE NATIONAL DISPENSATORY.** Containing the Natural History, Chemistry, Pharmacy, Actions and Uses of Medicines, including those recognised in the Pharmacopœias of the United States, Great Britain and Germany, etc. By Alfred Stillé, M.D., and John M. Maisch, Ph. D., of Philadelphia. Second edition, thoroughly revised, with numerous additions. With 239 illustrations. Philadelphia: H. C. Lea, 1879. Toronto: Hart & Rawlinson.

The issue of a second edition so soon after the publication of the first, takes us quite by surprise. It shows the appreciation in which the first edition was held by the medical profession and pharmacists, and proclaims more loudly than words can express, the intrinsic value of the book. It is not a reprint merely, but has undergone careful revision, and the addition of upwards of 100 pages of new matter. It is a most comprehensive and exhaustive work.

**ATLAS OF HUMAN ANATOMY,** with explanatory text. By R. J. Godlee, M.S., F.R.C.S., University College, London. Part II. Philadelphia: Lindsay & Blakiston. Toronto: Hart & Rawlinson.

This atlas, which is to be completed in 12 or 13 parts, is designed to illustrate most of the ordinary dissections, and also many not usually practiced by the student. It has been most favorably noticed by the press, and is deserving of the highest commendation both as a work of art and as an aid to the student of anatomy.

**DISEASES OF THE THROAT AND NASAL PASSAGES.**—

By J. Solis Cohen, M.D., Jefferson Medical College, Philadelphia, etc. Second Edition, revised and amended, with two hundred and eight illustrations. Pp. 742. New York: Wm. Wood & Co., 1879. Toronto: Willing & Williamson. Cloth, \$5.50.

The edition before us has been considerably enlarged, most of it rewritten, and all carefully revised. The work is, without exception, the best systematic treatise on the subject in America.

In his treatment of diphtheria, which may be taken as a sample of the author's style, and because of the interest in the subject at the present moment, owing to its prevalence in different parts of the country, he says "The patient is placed in the most convenient room of the house, encumbered with as little furniture as practicable, care being taken to provide for due ventilation and an equable temperature of 75° F. Great attention is given to nourishment, and to systematic alcoholic stimulation, when the strength is becoming exhausted. The nostrils, when clogged, are assiduously cleaned by douche or syringe. Tincture of the chloride of iron is given in full and frequent doses, and applied locally to any circumscribed patches that can be reached in their entire extent. A continuous evolution of steam is kept up in the apartment so as to moisten the air; the throat and nostrils are kept as clean as possible by douches of weak solution of carbolic acid (two grains to the ounce), and the same is occasionally administered by inhalation in spray. As soon as there is any evidence of morbid products in the larynx, or parts below it, inhalations of the fumes from lime, in the process of slacking, are administered for ten or fifteen minutes at a time, and repeated every second hour, hour, or half-hour, according to the freedom of respiration and the moisture of the bronchial tubes. If the lime does not appear to suit the case, or if its good effects are not continuous, inhalations of the warm spray of bromine, a grain to the ounce of water, with a grain of the bromide of potassium, are substituted. Should these likewise prove inefficacious, the sulphurous acid spray is tried. If the laryngeal symptoms increase, and asphyxia is to be dreaded, tracheotomy is advised as soon as there is marked inspiratory incurvation of the intercostal, substernal, and suprasternal tissues, without waiting for the period of cyanosis, provided that no respite is procured by the inhalations, or by the action of emetics."

He considers croup and diphtheria as two distinct morbid processes, and that the latter is often contagious.

**PHOTOGRAPHIC ILLUSTRATIONS OF SKIN DISEASES.**

—By Geo. Henry Fox, A.M., M.D., &c., New York. New York: E. B. Treat & Co. Toronto: Willing & Williamson. Parts I., II., III., and IV.; price \$2 each.

This work is to be completed in twelve parts, each to contain four plates besides letter-press descriptions of the diseases illustrated. Part I. contains four excellent colored plates, by a new process devised for the production of pictures from photographic negatives. These represent comedo, acne

vulgaris, lepra tuberosa, and elephantiasis. Part II. represents, keloid, rosacea, psoriasis, and ichthyosis. Part III. comprises fibroma, varicella, zoster and eczema, and Part IV. leucoderma chromophytosis, favus and eczema. The coloring is admirable, and the clinical features are strikingly portrayed. We can confidently commend this work to all who want faithful and artistic representations of diseases of the skin.

**PHYSIOLOGY AND HISTOLOGY OF THE CEREBRAL CONVOLUTIONS, AND POISONS OF THE INTELLECT.** By Charles Richet, A. M., M. D. New York: Wm. Wood & Co.; Toronto: Willing & Williamson.

It is not a very long time since many of our mothers and grandmothers, and even a few soft heads of their mates, manifested implicit faith in the teachings of Gall and Spurzheim, and were wont to view, with reverential wonderment, the mappings out by these venturesome brainographers, of the various provinces, counties, townships, and smaller municipalities of the domain of materialized mentality. Even so far did this captivating novelty proceed, that we have been assured, that prudent mistresses in the Athens of Scotland, have declined to hire servants, before they brought testimonials of sound moral rectitude, from some accredited expert in bumpology.

But "*nous avons changé tout cela*; instead of mapping out the brain according to its outside hills and hollows, our brainologists of to-day, like their brethren of the geological class, go to work beneath the surface crust, and by an infinitude of slicings, and borings, and other explorations, labour untiringly (to themselves, though hardly so to their reluctant victims,) to hunt up various hiding places of all the factors of mental and physical phenomena. Every day, or at least every month, now brings to us fresh revelations from the wondrous *terra incognita*, and as fast as we have feasted on, or floundered through, one treatise, we are confronted with another, all convincing us of how little we before knew, and perhaps suggesting to us how much we yet have to learn.

A hardly perhaps singular part is, that our modern cerebral explorers follow each other corroboratively up to a certain point, but before closing their work, strike out into tangential cross roads, or rather devious lateral by-paths. *Broca*

fixed, or fancied he fixed, the cerebral organ of speech in the third frontal convolution. *Ferrier* pretty decently corroborated this theory; but *Rosenthal*, *Luciani*, *Tambusini*, and our present author, *Richet*, seem inclined to annex to this metropolitan district a neighbouring island, that of *Reil*, long stowed away out of sight, up that fissure, or Norwegian fiord known to a limited few, only by the name of its first navigator.

All this thimble-rigging and obliteration of phrenological landmarks, is playing the deuce with the science of the craniologists. It is nothing less than insatiable vandalism to demolish those fifteen or more lovely organs of our higher nature, which *Gall* located along the ridge of the eyebrows, and taught us to regard as the pre-eminent indications of human supremacy; and, as if to heap insult upon injury, to tell us now, that our intellectual powers have their habitation, not in the front chambers, but away behind, where the bump-feelers had given lodgement only to our animal propensities, and other rather unmanageable mental disturbers.

It would now appear that Sir Wm. Hamilton, when in his refutation of the doctrine of phrenology, he quoted the aphorism, "*nulla fides in fronta*," was not very far from the mark. We must no longer grope after big minds over the forehead, or even the temples, but over the *quondam*, despised back slums of the occipital suburb. Well may the lingering disciples of *Gall* exclaim, "*Quousque tandem Catalina?*" When will all this ravaging and ransacking stop? That old anatomist, who located the human soul in the Pineal gland, where it could not be approached without flying away, showed much sound discretion, and perhaps he came as near to the den of the fox as some of our modern sportsmen who are now beating all round the bush in search of him. It is, however, very consoling to us to know that, if we only are physiologically akin to monkeys, dogs, rabbits, guinea pigs and pigeons, our brains may be sliced off and emptied out, from the roof down to the basement, without our ever feeling the least pain, or moral repugnance to the experimental liberty. This department of physiological experimentation will hardly be entered upon within the present century. In the mean time we would advise all those young aspirants who intend to live twenty years longer, and to prepare themselves for the future

seven leagued-boots strides of cerebral physiology and histology, to read Monsieur R'chet's book, and if they fail to find useful information in it, they must blame their own dulness,—not that of the author.

**HABERSHON ON DISEASES OF THE ALIMENTARY CANAL, &c.** Second American, from the third enlarged and revised English edition. Philadelphia: Lindsay & Blakiston. Toronto: Willing & Willimson, .

To those who have read either of the previous editions of the above excellent treatise, no eulogy of the merits of the work in its present enlarged form, can be necessary. It is admittedly the most complete exposition of the various affections of the entire alimentary tract in our language. The work is illustrated by 192 cases, exhibiting the clinical and autopsical observances noted by the author. These cases comprise a very instructive variety of the diseases incident to the alimentive system in its whole extent, and exhibit the complications in which other affiliated organs frequently become involved, in consequence of extension of the primary morbid derangement.

The following abstracts from the author's preface, can hardly fail to lead the intelligent professional reader to form a favourable anticipation as to the sound rational principles which he will find to pervade both the theory and the treatment advocated throughout the book.

Dr. H. says, "Although I have sought definitely to distinguish some classes of diseased conditions, I should be very unwilling to regard them as entities superadded to the human frame, but rather, to quote the words of Sir John Forbes, 'as new phases of vital manifestations.' And again,—'it may be convenient, as we have mentioned, to regard life as the resultant of certain forces, and disease as a deviation from the normal direction. If any of the forces which are in natural operation be modified in intensity, a deviation is the result, and diseased action is produced, the resultant being necessarily changed; still the tendency is such that on the withdrawal of the modifying force, the normal course is resumed."

"Diseased action, as generally manifested, is the resultant, not of one, but of several changes in the normal condition, and very few persons are literally in perfect health."

"Numerous means are available for checking

and modifying diseased action, and we must protest against the ignorance of those who argued the draught of medicine as the only important agent. The skill of the physician is often most manifest in the suggestion of hygienic measures, which by many may be assumed as of trifling moment; and whilst it is perfectly true that many morbid conditions cease after a time, or that the frame becomes so accustomed to perverted action that the balance of functions is apparently maintained without cognizance on the part of the patient, still the aid of medical science is most important.'

Anticipatively alluding to his chapter on "Colic," Dr. H. uses the following valuable admonitory words: "We have very strongly urged the avoidance of drastic purgatives, calomel, colocyth, and even milder purgatives, and as strongly recommended the free administration of opium; the cases detailed almost uniformly show, that, where purgatives were given, vomiting, pain, and distress were increased, whilst these and other symptoms were, on the contrary, relieved by opium. Opium, in such cases, appears to be the best means of procuring relief to the bowels, if an action be possible." Of course where an action of the bowels is not possible, some formidable lesion, or mechanical obstruction is present, and then certainly avoidance of purgatives is still more imperative. We have a very abiding remembrance of a case of colic with constipation, in a keen-feeding negro, whose abdominal fulness and severe pain were very significant. An intelligent student, who was in prior attendance, asked if we would not prescribe a purgative. Certainly, we replied, and forthwith ordered six two grain opium pills; three to be taken immediately, and the other three to be reserved for further disposal. The patient soon fell into a sound sleep. In about three hours we revisited him, and found him out of bed, and engaged in bundling up the sheet, which had suffered under alvine deluge of huge dimensions. His purgative had acted faithfully.

We had fondly hoped that Dr. H. in the course of his treatise, would have found occasion for grateful recognition of the teaching of one writer, to whom modern rational medicine, in the theory and treatment of diseases of the alimentary canal, is perhaps more indebted than it was to all who preceded him, and we would almost venture to say, than it has been to half who have followed



him. Many of the seniors of the profession will anticipate in this connection, our announcement of the name of *Broussais*, and few of them will decline to concur, in our expression of regret, that his writings seem to be so universally neglected by the juniors, and by too many of the teachers, of the present day. It is, however, impossible for any one who long ago carefully studied the works of *Broussais* to read those of his successors, without perceiving the extent to which they have, with very parsimonious acknowledgment, laid him under contribution; and although we may not ourselves now accept as sound theory all that he advanced on gastro-intestinal and other diseases, we certainly believe that, with a practical reference, his works might be very profitably utilized even by the young giants of this luminous age. The student of 50 years ago, who imbibed his motives of the action, and the therapeutic virtues of purgatives, from the then belauded work of Hamilton, will remember with what a mental concussion he was assailed on his subsequent perusal of *Broussais'* chapters on "Inflammation of the mucous membrane of the alimentary canal."

Dr. Habershon's book is not the less valuable because he has been oblivious of the merits of the French pioneer, but to have been less reticent in this relation, would not have derogated from his celebrity. It would indeed be glowingly consoling to the spirit of *Broussais*, if permitted "to revisit the glimpses of the moon," to identify, in the writings of so many authors of this age, the re-habilitated ideas which had birth in his own fertile brain. He is gone, but his works yet live, and what boots it to mankind at large, whether the thinker be remembered or forgotten, so long as his thoughts are not permitted to rot with his bones.

**A GUIDE TO THE QUALITATIVE AND QUANTITATIVE ANALYSIS OF THE URINE:**—Designed for Physicians, Chemists and Pharmacists. By Drs. C. Neubauer and J. Vogel. Translated from the seventh German edition, by Drs. Cutter and Wood, of Boston. New York: Wm. Wood & Co. Toronto: Willing & Williamson.

This is a most exhaustive work on this subject. The first part, by Dr. Neubauer, is strictly chemical in character, and is very full and complete. The second part, by Dr. Vogel, takes up the subject of urinary analysis from the physicians' point of view,

and is also very complete. The work contains some excellent plates, and is all that can be desired as a guide to the analysis of the urine. The book is bound in the new style of binding, introduced by Wood & Co., consisting of *cow-skin*, colored dark red. It bears handling well, without soiling.

**A PRACTICAL TREATISE ON SURGICAL DIAGNOSIS.**  
—By Ambrose L. Ranney, A.M., M.D., Adjunct Professor of Anatomy and Lecturer on Minor Surgery in the Medical Department of the University of New York. 8vo. pp. 386. New York: William Wood & Co. Toronto: Hart & Rawlinson.

This book will be found a very good aid to surgical diagnosis for both practitioners and students. It will be found especially valuable as a text-book for surgical lectures. The matter is well arranged and easy of access when required for reference on short notice, the main points in the diagnosis between different lesions being arranged in opposite columns on the same page.

**A GUIDE TO THERAPEUTICS AND MATERIA MEDICA.**  
By Robert Farquharson, M.D., Edin., F.R.C.P., Lond., etc. Second American edition, revised and enlarged. Philadelphia: Henry C. Lea.

This is a most excellent text-book for students, and has become very popular. The present edition is very much improved, and has been adapted to the U. S. Pharmacopœia by Frank Woodbury, M.D., of Philadelphia. One very useful feature in the book is the arrangement of the physiological and therapeutical action of medicines in parallel columns.

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### Births, Marriages and Deaths.

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At Fairview, Stratford, on the 11th of August, 1879, the wife of J. R. Hamilton, M.D., of a son.

On October 31st, the wife of Dr. Saunders, of Kingston, of a son.

On Nov., 13th, J. C. Ray, M.D., of Sunderland, Ont., to Ellen, fourth daughter of John Hyland, Esq., of Oshawa.

On Nov., 10th, John S. Grey, M.D., of Williamsburgh, Ont., to Miss Adelaide Lane, of Napanee.

On Nov., 5th, James L. Brown, Esq., M.D., Plattsville, Ont., to Jane, second daughter of Robert Patton, Esq., Blenheim.

On Oct., 13th, J. Dunfield, M.D., of Petrolia, Ont. to Miss Jennie B. McRae of Melbourne, Ont.

In Ottawa, on the 6th of September, Joseph Garvey, M.D., C.M., (McGill College), in the 49th year of his age.

On the 22nd ult., W. A. Doupe, M.D., of Zrichu drowned on the Waubuno.