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## THE CANADA LANCET,

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## Original Communications.

THE THEORY OF GERMS, AND ITS APPLICATION TO MEDICINE AND SURGERY, BY PASTEUR, JOUBERT, AND CHAMBERLAND.

(Continued from page 113.)

BY JOSEPH WORKMAN, M.D., TORONTO.

I have many times stated before this Academy that there exist microscopic ferment creatures, possessing various physiological properties, from the *mycoderma aceti*, essentially an air-living organism, to the ferment of beer, which is at once an air and an airless living one, and I have often insisted upon this circumstance, that life which is manifested for even a very short time without any participation whatever of free oxygen, carries with it the phenomena of fermentation.

We have seen in the vibrio of septicæmia a *microbio* exclusively *anërobious*, (living without air), which therefore could not be developed unless *in vacuo*, or in the presence of inert gases. It must therefore be a ferment. This is the fact. Whilst the multiplication of the vibrio by scissure continues, its life is accompanied by an evolution of hydrogen, a little nitrogen, and minute quantities of putrid gases. These gases do not cease to be produced until the moment in which transformation of the vibrio into corpusculous germs is about to take place. This evolution of gases during the life of the vibrio explains the very rapid tympanites of animals dead from septicæmia, and the emphysematous state of the connective tissue, particularly in certain parts of the body, as the groins, and axillæ, where the inflammation is sometimes excessive. I ought to add that all vibriones are not anërobious; that one of the most common, frequently found on the surface of infusions of vegetable organic matters exposed to contact of air, a vibrio very flexuous and very rapid in its movements, is exclusively aërobious

(living in air), absorbing oxygen and exhaling carbonic acid almost in equal volume, exhibiting thus the physiology of the *bacteria carbunculosa*. Want of time prevents me doing more than allude, in passing, to this vibrio, which should give occasion for observations of much interest. This vibrio is inoffensive—being introduced beneath the skin, it produces merely local disorders of little importance. Comparing this innocuousness to the virulence of the septic vibrio, one might believe that the mode of life so different in these two vibriones, the one living *in* air, the other *out* of it—may explain the oppositeness of their action on the economy. The effects, however of the *bacteria carbunculosa*, do not permit us to remain in this belief. If this aërobious vibrio is inoffensive, it is because it cannot live in the temperature of the bodies of animals. At 38° C. (100.4° F.) its movements and its multiplication are suspended, and if then inoculated, it disappears under the skin, as though digested, if we may so speak. Scientific novelties often clash with our preconceived ideas. What is all this rumpus, exclaim certain persons, about your bacteria, and your vibriones? Do we not see these infinitesimals budding in all parts? Are they not seen to abound in the dressings of the convalescent, and to abound even in the wounds in progress of cure? Has the least danger therefore resulted? I answer,—What infinitely small things are you talking about? We have demonstrated that by the side of these very dangerous vibriones, there exist others very harmless, and certainly these last are far from being the only *microbios* devoid of all virulence. Having been led by the verification of the cause of the innocuousness of the *vibrio aërobious*, of which I have spoken, to institute numerous experiments as to the limits of resistance of microscopic beings in diverse temperatures, and having known that the *bacteria carbunculosa* is not developed, or only with much difficulty, in a temperature of 44° C. (111.2° F.), in certain liquids of culture, we thought this was an explanation of a well known, though very mysterious fact.—to wit: that certain animals are refractory to the carbunculous poison. It was impossible for us during the last year to produce carbuncle in hens. The temperature of about 42° C. (107.6° F.) in the gallinacæ, united to their vital resistance, opposed the development of the *bacteria carbunculosa* in the bodies of these animals.

If this conjecture were well founded, we should be readily able to transmit the carbuncle to hens by lowering their temperature. The success of this experiment was immediate. Inoculate a hen with the legs immersed in water at 25° C. (77° F.), which suffices to bring the temperature of the body down to 38° C. (100.2° F.), which is the temperature of animals susceptible of contracting carbuncle, and in 24 or 30 hours the hen dies with all the body invaded by *bacteria carbunculosa*. Certain inverse experiments have given us favourable results,—that is to say—by elevating the temperature of animals which contract carbuncle, we have been able to preserve them from this terrible, and at present incurable evil.

To augment or limit the enormous potency of these infinitely small things, and to dispel the mystery of their action by a simple change of temperature, is one of those facts most fitted to demonstrate what may be hoped for from the aid of science, even in the study of diseased conditions most obscure.

Let us now return to our septic vibrio, and compare it, under the relation of the formation of its germs, to the *bacteria carbunculosa*, in order the better to be convinced that microscopic organisms enjoy varied physiological properties, and that we should expect from their part, very diverse morbid manifestations. Careful experiments have taught us that the septic vibrio not only can live and multiply in a vacuum the most perfect, as in the most pure carbonic acid, but that also it here produces its germs, and that free oxygen is not necessary, in any form whatever, for their function. But the *bacteria carbunculosa*, on the contrary, becomes, in a vacuum, or in pure carbonic acid, absolutely unfitted not only to live, but even to be transformed into corpusculous germs.

This last investigation is, however, one of the most delicate. If the smallest quantity of air remains in the tubes in which establishment of a vacuum is sought for, and in which the *bacteria carbunculosa* is cultured, corpusculous germs, appear, and to such a degree that the most perfect air pumps often fail to prevent the phenomenon. It was necessary to combine the operation of the pump with that of liquids capable of absorbing the slightest traces of oxygen, before we could be convinced that this bacteria is essentially, in every period of its existence, aërobious.

What a difference there is then between the vibrio septica, and v. carbunculosa! and is it not wonderful to see beings so dissimilar in their modes of nutrition multiplying in the animal organism?

Another question not less interesting, is to know if the corpusculous germs of the *vibrio septica*, after formation in *vacuo*, or in pure carbonic acid gas, are not liable to become developed from small quantities of oxygen. Physiology knows to-day no germination possible without contact of air,—yet experience proves that the germs of the septic vibrio are absolutely sterile in contact with oxygen, whatever may be the proportion of this gas; but with this condition, that there is a certain relation between the volume of air and the number of the germs; for the first germinations, stealing the air which was in solution, may become a protection to the remaining germs, and it is thus that in strictness the septic vibrio can be propagated, even in presence of very small quantities of air, whilst this propagation does not take place under a free supply of air.

A curious therapeutic observation is here suggested. Let us suppose a wound exposed to the air, and in a putrid state which might cause the patient septicæmia, and without other complication than might result from development of the septic vibrio.

Now then, theoretically at least, the best means to which recourse could be had, to impede death, would consist in incessantly washing the wound with water showered over it, or in directing over it a free current of air. The adult vibriones, on the point of scission would die in contact with air; or would become sterile. Yet more; there may be cast over the surface of the wound, air surcharged with the germs of the septic vibrio, or we may wash the wound with the water holding in suspension millions of these germs, without provoking the least septicæmia. But then, in such conditions let one single blood clot, one single fragment of dead flesh be lodged in a corner of the wound, then by the aid of the oxygen of the air, be it ever so small in extent, these septic germs, in less than twenty-four hours, give place to an infinity of vibriones, which reproduce by scission and in a short time are capable of producing septicæmia. The numerous cultures which we made of the septic vibrio, have enabled us to verify some curious facts of the natural history of microscopic organisms.

One of the liquids used by us for the culture of the septic vibrio, was the extract which is called in commerce the *caldo Liebig*, which, after dilution in ten parts by weight of water, and having been neutralized, or rendered slightly alkaline, was raised during a quarter of an hour to a temperature of  $113^{\circ}\text{C}$  ( $235.4^{\circ}\text{F}$ .) so as to turn it absolutely impurescible under contact with pure air. We have said that the septic vibrio is formed of minute threads which move. This is particularly the aspect under which they are met with in the abdominal serosity, or in the muscles of animals dead from septicæmia; but it is often associated in the muscles, especially of the abdomen, with small corpuscles generally immovable, having a lenticular form. These lenticles, which have sometimes a corpuscular germ in one of their extremities, were for a long time, a source of embarrassment, and a mystery to us; our experiments in culture have taught us, however, that they are no other than one of the forms of the septic vibrio.

Sometimes the lenticle is terminated on one side by an elongated appendix, having thus the form of a bell-tongue. We have likewise seen the septic vibrio under the form of minute twigs, extremely short and gross, or very much attenuated; but that which is most surprising is the facility with which the septic vibrio can be reproduced without manifesting the least movement, a facility combined with a great diminution of virulence, though this does not altogether disappear.

For a considerable time we thought we had two, or several forms of vibriones, of divers forms of virulence, and that by our cultures we obtained separations more or less complete between these diverse vibriones. It is not so. We have not met, in septicæmia properly so called, any but one vibrio, in which our means of culture caused change of aspect, or facility of propagation, and virulence.

The best proof that, in our culture, indefinitely repeated, we have had, that it is a specific vibrio is that those cultures may be raised in their commencing virulence by changing their liquid. Let there be reproduced ten, twenty, thirty times, consecutively, the septic vibrio in the *caldo Liebig*, and then let there be substituted for the *caldo* sanguineous serum slightly charged with fibrinous coagula, the new culture will furnish a very virulent septic vibrio, killing, for example, with  $\frac{1}{20000}$  of a drop

and the blood and serosity of the animal dead, will immediately acquire a virulence yet infinitely greater, with the habitual forms and movements of the septic vibrio.

We have shown by the preceding facts, how premature, in the actual present state of our knowledge, are the classifications and nomenclatures proposed for beings which, in their aspect and properties, through external conditions, can change to such an extent as we have instanced.

In the study of microscopic beings, every method which can be availed of for separation of the numerous species, whose association is so frequent, is indispensable. The peculiarities of those ferments which live without air, placed us on the track of these methods. I will allude to culture *in vacuo*, opposed to that in presence of atmospheric air. If the germs of an aërobious organism are met with, mixed with those of an anërobious one, they can only be separated by culture *in vacuo*. The same will happen equally in a mixture of germs of a species which is at once aërobious and anërobious. Applying this method, and associating with it others known; sometimes, too, taking advantage of a happy accident, as we always do in a long course of investigation, we have found that the atmosphere and the water, those grand reservoirs whence converge the microscopic destructions of all that has life, contained very numerous species, both of the aërobious and the anërobious. Without entering into premonitions of our observations, we may say, in a general way, that the inoculation of these organisms often induces fatal disorders, which appear even to constitute affections, as novel in the specific character of their action, as in the nature of the organisms inoculated in them. The septicæmia, for example, with which we have already been occupied, is not unique. The air and the water contain germs of a vibrio a little less in diameter than that of the septic vibrio,—more rigid, less flexuous, and slower in its movements. In another communication we shall describe its effects.

The following experiments make known another method of separation of microscopic germs which at some points enter into the subject already treated of. Take a quantity of flesh meat, of any weight whatever; let it be a large quarter of mutton; then after having passed it rapidly over fire, in all parts of its surface, pass through the thickness of its tis

sues the blade of a bistoury, passed in like manner through a blaze; let fall into the cut thus made a few drops of common water, or introduce a small rag of cotton which has been exposed to the current of the air of the street; afterwards cover the quarter of mutton with a bell-glass. Make the same experiment on a similar mass of flesh passed over fire, and some drops of water perfectly deprived of living germs, which is done by raising the water to  $120^{\circ}$  C. ( $248^{\circ}$  F.) If we consider that muscular flesh readily absorbs oxygen, and evolves an almost equal volume of carbonic acid, we shall readily comprehend that these drops of water are found as if inseminated by aid of the atmospheric air in presence of a culture favourable for the development of certain germs; besides it is easy to fill the bell glasses which cover the flesh with pure carbonic acid. Observe now, what occurs in a day, or two at most, in a temperature of  $30^{\circ}$  to  $40^{\circ}$  C. ( $86^{\circ}$  to  $104^{\circ}$  F). The quarter of mutton with the pure water shows no microscopic organisms in any part; whilst, on the contrary, that with the common water, although it may not have received more than a drop of the water of the Seine, or some other dirty water, containing in every part of its mass, and even over its entire surface, anærobious vibriones, more or less rapid in their movements and their propagation.

The experiment is still more notable when there has been deposited in a central point of a piece of flesh a drop of the culture of a vibrio in a state of purity, i. e., without intermixture of other species. The septic vibrio, among others, penetrates, and multiplies with such facility, that every microscopic bit of the muscle presents them in myriads, and their corpusculous germs also. The flesh, in these conditions, is totally gangrened, green on its surface, tumefied with gas, easily sundered, and forming a sanious fetid pulp. What a convincing demonstration, though indirect, of vital resistance, or to use an expression more vague, and at the same time more clear, of the influence of life in combating the consequences, so often disastrous of wounds in surgery. By the water or the sponge with which we wash, or the lint with which we cover a wound, we may deposit in it germs which as you have well seen, are gifted with extreme facility of propagation in the tissues, and we might infallibly bring death to our patients, in a short time, did not the life in their members oppose the

multiplications of the germs. But alas! how often is this vital assistance impotent? how often do the constitution of the wounded, his moral state, the evil conditions of the curative process, oppose but an insufficient barrier to the invasion of the infinitely little beings, with which unwittingly you cover the injured part! If I had the honour of being a surgeon, conscious as I am of the dangers to which the germs of microbios sown broadcast on all objects, but particularly in our hospitals, expose the patients, not only would I use no instruments not perfectly clean, but even after having cleansed my hands with the greatest care, and having rapidly submitted them to a brisk heat, which would expose one to no more inconvenience than is experienced in passing from hand to hand a piece of burning charcoal, I would employ only lints, ligatures, or sponges, previously exposed to an atmosphere of  $120^{\circ}$  C. ( $252^{\circ}$  F.). In this manner we should have no fear unless as to the germs in suspension about the bed of the patient; but observation has shown us daily that the number of these is, so to speak, insignificant, compared to those scattered in the dust covering the surface of objects, or in the cleanest common water. And, besides, nothing is opposed to the undertaking of the antiseptic process of treatment; but with the precautions which I indicate it may be very much simplified. Phenic acid, not concentrated, and consequently without inconvenience from causticity to the hands of the operator, or to his respiration, may be advantageously substituted for the concentrated.

The importance of the subject is sufficient to warrant a few remarks respecting the risks of death in consequence of the most simple wounds. I shall now allude to a vibrio which has not yet been noticed, whose properties cast new light upon the great "rock" of surgery—'purulent infection. When we take for seed, from a culture *in vacuo*, some drops of common water, it may happen that we obtain a single organism, because common water frequently contains certain germs in unity, when taken in very small volume. This is even a means of separation of germs. If the cultures thus made with diverse common waters be multiplied, the vibrio of which I desire to speak is frequently met with, whose principal characters are these. It is a being at once aërobious and anærobious. In other terms, cultivated in contact with air it absorbs oxygen and gives out an equal volume of carbonic

acid gas, without formation of hydrogen gas. In these conditions there is no ferment; on the contrary, cultivated *in vacuo*, or in presence of pure carbonic acid gas, it multiplies, but not without, this time, giving a true fermentation, with evolution of carbonic acid and hydrogen gases, as its life is accomplished without air. This is a new confirmation of our principle, that *fermentation accompanies life without air*—a principle which I am persuaded will one day dominate our conceptions of the *physiology of the cell*.

In the first hours of the development of our vibrio, the rapidity of which, principally in contact with air, is considerable, is under the form of small rolls, very short, gyrating, making pirouettes, advancing, swelling out, and in a soft, gelatinous, flexuous state, which is very marked, notwithstanding the small size of the individuals. In a short time all movement stops, and then it resembles absolutely the *bacterium termo*, slightly constricted as this is, in its thickness, yet specifically very different from the *bacteri. m.*

Inoculate, with a few drops of this culture, a guinea pig, or a rabbit, and pus commences to form, and to become visible in a few hours. In the succeeding day an abscess is formed, which contains an abundance of pus. This, it will be said, is nothing surprising, because it is known that any solid object whatever, as particles of carbon, a bit of wool which a bullet drives before it, will cause pus to form. I will add that these last experiments have been realized by us with matters previously water-killed, and not containing microscopic germs. But the activity of our microbio, considered as a generator of pus, even though this property may be due only to the quality of a solid body, will be sensibly augmented by the fact of its possible multiplication in the bodies of animals.

The following experiment may serve for confirmation of this fact; let a culture of this organism be divided into two equal portions; one to be water-killed, at a temperature of 110° C. (230° F.) which kills the microbio without in any way altering its form or volume; then inoculate separately, on two similar animals, equal portions of the water-killed and the non-water-killed half. It is then easily verified that the latter gives more pus than the former, which, in the mean time, furnishes it as any inert solid body would do. Let us add that if the pus formed in each of the two living

animals, be sown separately, we shall see that what has been tried on the animal which received the water-killed organisms is absolutely sterile, whilst the pus of the animal which received the organisms of the non water-killed, readily produces, in abundance, the same organisms.

(To be continued.)

## FATTY EMBOLISMS IN FRACTURES.

(Translated from *Le Progrès Medical*.)

BY C. W. COVERNION, M.D., M.R.C.S. ENG.,  
TORONTO.

In 1862 Zenker, while making a post-mortem examination of a man crushed between two wagons, found the capillaries of the lungs full of fat. He believed that this fat proceeded either from the contents of the stomach, or from the liver which was steatomatous, as both these organs had been affected by the traumatism. Zenker considered the circumstance very interesting from an anatomical point of view, but he did not recognize the relation which existed between fatty embolisms and traumatisms, neither did he accord great practical importance to the case he had the opportunity of noticing. The same year Wagner published several cases of fatty embolisms, but he regarded them as proceeding from a metamorphoses of pus, as one of the causes of pyemia. It was only in 1865 that Wagner and Busch arrived about the same time, at an exact and completely similar description of the nature and causes of fatty embolisms in osseous alterations. From that time, the doctrine of fatty embolisms was placed on an unassailable foundation, and anatomical, pathological and chemical researches rapidly followed. It was established that in every fracture there was fatty embolism having its origin in the medulla of the bones; that this embolism was more or less considerable, and that it was very rarely localized in the lungs; but that it might be found in all the tissues of the organism. Finally, it was shown that in a certain number of cases it could be diagnosed during life, and that it was necessary to regard it as a frequent cause of death and as explanatory of the mechanism of the fatal termination in a large number of cases of death more or less sudden after great traumatic lesions, and previously attributed in a comprehensive manner to that which in surgi-

cal practice was recognised as shock. In this matter it will suffice to allude to the researches of Bergman, Bzerny, Halin, and Fournoy. From the investigations of these writers, fatty embolisms localized in the lungs, or generalized are much more common than is generally supposed, and is produced not only in all fractures, simple or complicated, but further that it may be noticed, although less prominently, outside traumatism in every case where the bones are changed in structure by one cause or another. The number of cases of fatty embolisms observed under the circumstances that we have cited is considerable; it reaches the figure of 140, all, or nearly all have been observed in Germany, except two coming from the Ancient Faculty of Strasburg. Having had opportunity very recently of observing two well marked cases of pulmonary fatty embolism consecutive on osseous changes, we considered it right to publish them, so as to draw attention to a subject little known among us, still less studied, the importance of which nevertheless will not escape the mind of any one, if regard is had to the statistics mentioned above, a subject doubly important in our judgment, not only because it widens the compass of our anatomical and pathological knowledge, but especially because it makes known a nearly fatal complication of serious injuries, and that consequently it appears to us to have in it considerable clinical importance from the point of view of prognosis. On the 28th of October last a young man was brought to the Hotel Dieu, under the service of Dr. Cusco, sixteen years of age, who had his right leg crushed by a tramway. The patient died within an hour of the accident, having lost a certain quantity of blood. His mind continued clear to the last. M. Bruchet house surgeon, made the autopsy, and established the breaking of both bones, at the middle third of the leg with the fissure of the tibia running to the articular plate. He kindly sent me the lungs and heart, the venæ cavæ having been previously ligated, in order to examine the blood of the right ventricle. The microscopical examination made at the laboratory by Professor Vulpian revealed to us the following particulars. The blood of the right ventricle, obtained by means of a puncture made through the wall, previously washed with ether, contained a great quantity of fat mingling in little drops, and recognizable by its micro-chemi-

cal characters, disappearing after the action of ether, and assuming a black coloration under the influence of osmic acid. The vessels of the lung were gorged and literally injected with fat; sections even of the parenchyma made with scissors and examined under the microscope displayed in the interior of the vessels of the lungs—arterial and venous capillaries—elongated masses of from four to five millimetres in length, marked with a special refraction, disappearing under the influence of ether, and presenting, after the action of osmic acid, a deep black discoloration. These floating fat globules, were so abundant at certain points that they outlined, not only the perilobular vascular network, but also the areolar capillary network. Examinations, made at all parts of both lungs gave the same results. The preparations were shown at the Anatomical Society at the sitting of the 8th of November. The second case, not less conclusive than the first, comes from the service of Dr. Brouardel, of St. Antoine. The lungs which we examined, with the assistance of Mr. Mayor, were sent to us by our colleague, M. Marchand, interne of our service. They came from a man who died thirty-six hours after fracture and depression of the right parietal, and as in the foregoing case the pulmonary vessels contained fat, but in small quantities. In both cases, no other viscera than the lungs were examined for fatty embolisms. These two cases which we have reported here, are examples absolutely demonstrative of fatty embolisms after traumatism of the bones. We do not desire in this article, to enquire into the part that this fatty embolism has played in these two cases as a cause of death. In the first, we cannot perceive any other cause that could be assumed. It is, however, a subject that we purpose studying more completely in the future, as cases of fatty embolism are, in truth, very far from rare, and we are persuaded that they will be discovered from day to day to become more frequent, when they are sought for in cases of patients who have succumbed to traumatism. These two cases that we have now reported, are in every particular counterparts of those which have been published in Germany in recent years, and are confirmatory of facts announced by different authors who have devoted their attention to this question; but as we have before said, we have thought it right to publish them in order to draw attention to a subject worthy of study from every

point of view, for although the doctrine of fatty embolism has been announced in the course of lectures of Professors Vulpian and Charcot it did not appear to us up to the present time, to have attracted sufficiently the attention of the medical world.

PARACENTESIS THORACIS IN SUPPURATIVE PLEURITIS — 'NITROUS-OXIDE GAS AS AN ANÆSTHETIC.'

BY WELLINGTON N. CAMPBELL, M.D., NEW YORK.

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Late Assistant-Sanitary Inspector to the Board of Health, and Attending Physician to the New York and Northern Dispensaries.

The patient states that while exposed to the vicissitudes of the weather during the summer of 1868, he was attacked with acute pleuritis on the left side, for which he was treated in the usual manner. The acute symptoms subsided in a short time; but he realized that he did not breathe as perfectly as before the attack, owing to existing trouble on that side, and he was annoyed by a persistent hacking cough. During the fall of 1869 he had several attacks of hemoptysis, but still continued at his occupation which was that of a private detective. During the fall of 1871 he had another attack of hemoptysis, a little more severe than the preceding one, which alarmed him very much; but which caused him no particular inconvenience. In the summer of 1872, he perceived by digital examination that his heart was displaced to the right, and he was still annoyed by a dry, short, hacking cough, with mucous expectoration, for which he consulted a physician, who gave him a cough mixture and cod-liver oil, alternated with mineral tonics, which he continued to take. I visited him for the first time on the 15th of Nov. 1876, and found him very much emaciated, and suffering from a persistent cough, accompanied with a thin, glairy mucous expectoration, recurrent chills, hectic paroxysms, marked febrile movements, and profuse nocturnal perspirations, and in fact he bore an exact counterpart, in appearance, to one suffering from the last stage of consumption. On examination I found the apex beat of the heart under the right nipple, diminished in intensity and increased in frequency. Pulse at the wrist 120 per minute, small and compressible; temperature in

the axilla, 102° F. with the left pleural sac completely filled, with what I supposed to be pus, owing to the marked bulging of the intercostal spaces. The following day I met Dr. Austin Flint in consultation, and he confirmed the above diagnosis. I operated on the 29th of Nov. using compressed nitrous-oxide gas as an anæsthetic, administered by my dental friend M. S. Beebe. The incision was made with a scalpel in the eighth intercostal space, a little posterior to the axillary line, drawing off about one quart of thick laudable pus, when the patient becoming exceedingly weak, and feeling a sense of suffocation, I was forced to desist. I closed the wound with adhesive plaster, and gave stimulants. On the following day (Nov. 30) I drew off the remainder, which consisted of one pint. There was little, if any odor from the pus. I continued to sustain him by a fluid nutritive diet, tonics, and stimulants. He continued to have an occasional chill and nocturnal perspirations, but they gradually subsided by removing the pus twice daily and cleansing the cavity by injections (through a flexible catheter) of a weak solution of permanganate of potash, which also served as an excellent deodorizer, and prevented excoriation of the wound by acrid secretions. He had constitutional syphilis, and there remained as a sequence chronic nasal catarrh. The syphilitic cachexia probably acted as a predisposing cause, by which the acute was transformed into the suppurative form of pleuritis. He improved gradually and commenced taking exercise about his room on the 15th of Dec., and went out on the street for the first time on the 24th, after which he took out door exercise daily, and eventually went on duty. The heart had returned to that extent that the apex beat was felt in the ensiform triangle. The cardiac pulsations were less intense, but more frequent than normal, owing to pericardial adhesions, and its unfavorable position. The vesicular murmur and resonance were about normal over the whole of the posterior, but were heard with diminished intensity over the upper anterior portion of the lung. Still he complained of but little difficulty in breathing, except upon taking undue exercise. The latter part of Feb. 1877, he went to Washington, on official duty (contrary to advice) feeling tolerably comfortable. The discharge at this date amounted to about one ounce daily, consisting mostly of serum. I instructed him to remove the oakum daily (which was



introduced to keep the wound open), and to cleanse the cavity by injections. He removed the oakum, but neglected to replace it, or to wash out his side as directed. He returned after the lapse of two weeks with the wound partially healed and the sac full, with acute pleuritis of the right side, which caused him much difficulty in breathing, owing to the limited capacity of the left lung. He was soon relieved of the acute symptoms, but his means of support being limited, and requiring constant attention, it was deemed advisable for him to go the hospital. He remained there till about the 1st of August, when he was brought home. I was called to see him on the 8th and found him very much emaciated, the opening was small, and his side discharged about ten ounces daily. The left half of the chest measured  $11\frac{7}{8}$  inches, and the right half  $15\frac{3}{8}$  inches. I operated again (under nitrous oxide gas) making the incision by measurement two inches in length, using a curved director, which I passed in between the lung and chest wall as a safeguard upon which to make the incision. Through this free opening the accumulated pus discharged freely, and the cavity was readily and thoroughly cleansed. Erysipelas developed in and about the wound, but soon subsided under the internal administration of iron, carbonate of ammonia, and the external application of warm fresh buttermilk. He gradually improved in strength, and the latter part of Dec., 1877, was able to walk about his room, when he formed the habit of taking opium to produce sleep, after which time his appetite failed, and he became constipated. His wife informs me that he has subsisted on brandy, milk, and water for the last four weeks, and that his bowels have not moved without injections for the last three weeks. The waste exceeded the assimilative process to that extent as to render recuperative impossible. General emaciation was the result, and he gradually sank and died a mere skeleton, on the 4th of Feb. 1878. Had he deferred his trip abroad and remained under treatment, I have every reason to believe he would have been alive to-day and enjoying tolerably good health. Unfortunately I was unable to obtain a post-mortem, but from physical explorations performed at various times, I am satisfied that the lung was in a fair condition. There was feebleness of the respiratory murmur and diminished vesicular resonance, over the apex in front, but were not devoid of their

distinctive characters. These signs would be consistent with partially compressed lung, and rigidity of the pulmonic pleura, rendered dense by a deposit upon its surface, or if the physical signs here enumerated depended upon a deposit of miliary tubercles, which we might infer from the previous history of hemoptysis, the deposits must have been small and disseminated, for the expectoration was not sufficient, or of such character as to lead me to infer that there was disintegration following miliary tubercle, and there were no signs indicative of a cavity.

There are several useful lessons to be derived from this case, although terminating fatally.

1st. That our physical explorations of the chest should be so thorough, in cases pointing to disease thereof, as to give the patient the advantage of an early diagnosis.

2nd. To operate early, or while the system is in a condition to be recuperated, is absolutely necessary in order to insure the possibility of recovery.

3rd. To make a free incision in order that thorough drainage may take place, as from any other abscess.

4th. Not to allow the wound to close until the discharge ceases, and keep the cavity cleansed and disinfected.

6th. To sustain your patient from the outset by good diet, stimulants and *especially pure, fresh, air.*

### Correspondence.

#### INSANITY.

To the Editor of the CANADA LANCET.

SIR, -- In the last number of your issue appears an interesting essay on the above subject prepared by Dr. Clarke, Superintendent of the Asylum for Insane, Toronto, and read at Hamilton last September before The Canada Medical Association. As a medical man I am much in sympathy with the Dr.'s views as contained in his essay, but I take strong exception to a case of attempted homicide cited and described by him, to show the difficulty scientists experience in determining where sanity ends and insanity begins. The case in question is a felony which was committed here a couple of years ago, and is known as *Regina vs. Wright*. The facts attending the commission of the crime are correctly set forth, but your readers unac-

quainted with the details of the crime, trial, conviction, and sentence of the accused would be forced to the conclusion that the unfortunate man was found guilty on testimony of witnesses *lay* and *medical* swearing unitedly to the sanity of the prisoner by which the Crown was enabled to prevail against the contention "not guilty because of insanity." The Dr. describes his two interviews with the prisoner, how he was led to believe the contention of the defence unfounded, and how on a subsequent interview he found the key that opened the door to the chamber of his fantasies. Now I am greatly surprised for two reasons; first, the statement of Dr. Clarke who says in effect, that to him belongs the credit of having discovered in the first instance the mental ailment of the prisoner; the second is the conduct of the Dr. as a medical expert in calmly acting the part of a disinterested spectator while a legal farce was played, or a judicial outrage committed without a word of protest from him as a medical expert, or a government officer, in which capacity he was there. Now, I happened to take some interest in the defence of this trial, and was present as a witness for the prisoner to testify to his insanity. Judge of my surprise to find the Dr. there on behalf of the Crown, testifying in a plain case of insanity (that is, plain to my mind). I took the liberty of introducing myself to him, informing him at the same time of my purpose to give evidence that the prisoner was insane. I then learned that the Dr.'s views were adverse to the defence. I pointed out to him how he could find indisputable evidence of partially concealed, but very deep-seated mental delusion in the accused, and suggested the propriety of again paying a visit to the prisoner. The Dr. acted on my suggestion, the result of which was, he determined not to testify for the Crown. Evidence lay and medical was given showing the insanity of the accused, but in rebuttal the Crown called a preponderance of medical testimony to show the reverse, and from a *lego-medical stand point* the Crown triumphed in its contention against the accused. Now the reader will infer from reading the essay that had the defence "sufficient acumen," and called Dr. Clarke, the case for the defence would have been different. I think the counsel who defended, displayed good common sense in not calling the Dr., as the learned judge who presided subjected all medical testimony to one ordeal, viz.: Did the prisoner know right

from wrong at the time he committed the felony? It is evident, under such ruling, Dr. Clarke was of no use to the defence, as the prisoner was a stranger to him up to the trial. But why did the Dr. as a humane official not endeavor to remonstrate with the Crown counsel on the cruelty of punishing an insane man? For the Crown ever jealous of the rights of the public, has no desire to punish any innocent man, that is, innocent in the eye of the law. Had the Dr. done this the expense of bringing him from Toronto would not, as it has been, thrown uselessly away. Apologizing for the length of this communication, and thanking you for the space.

I am, yours, &c.,

G. W. LING, M.D.

Wallacetown, Dec. 1878.

### Selected Articles.

#### DIAGNOSIS OF CASES OF INTESTINAL OBSTRUCTION.

Jonathan Hutchinson, F.R.C.S., in British Medical Journal:

1. When a *child* becomes suddenly the subject of symptoms of bowel obstruction, it is probably either intussusception or peritonitis.
2. When an *elderly person* is the patient, the diagnosis generally rests between impaction of intestinal contents and malignant disease (stricture or tumor.)
3. In *middle age* the causes of obstruction may be various; but intussusception and malignant disease, both of them common at the extremes, are now very unusual.
4. Intussusception cases may be known by the frequent straining, the passage of blood and mucus, the incompleteness of the constipation, and the discovery of a sausage-like tumor either by examination per anum or through the abdominal walls.
5. In intussusception the parietes usually remain lax; and, there being but little tympanites, it is almost always possible, without much difficulty, to discover the lump (or sausage-like tumor) by manipulation under ether.
6. Malignant stricture may be suspected, when in an old person, continued abdominal uneasiness and repeated attacks of temporary constipation have preceded the illness. It is to be noted also that the constipation is often not complete.
7. If a tumor be present and pressing upon the bowel, it ought to be discoverable by palpation, under ether, through the abdominal walls, or by examination by the anus or vagina, great care being taken not to be misled by scybalous masses.

8. If repeated attacks of dangerous obstruction have occurred, with long intervals of perfect health, it may be suspected that the patient is the subject of a congenital diverticulum, or has bands of adhesion, or that some part of the intestine is pouched and liable to twist.

9. If in the early part of a case the abdomen becomes distended and hard, it is almost certain that there is peritonitis.

10. If the intestines continue to roll about visibly, it is almost certain that there is no peritonitis. This symptom occurs chiefly in emaciated subjects, with obstruction in the colon of long duration.

11. The tendency to vomit will usually be related with three conditions and proportionate to them. These are (1) the nearness of the impediment to the stomach, (2) the tightness of the constriction, and (3) the persistence or otherwise by which food and medicine have been given by the mouth.

12. In cases of obstruction in the colon or rectum sickness is often wholly absent.

13. Violent retching and bile-vomiting are often more troublesome in cases of gallstones or renal calculus simulating obstruction than in true conditions of the latter.

14. Fecal vomiting can occur only when the obstruction is moderately low down. If it happen early in the case, it is a most serious symptom, as implying tightness of constriction.

15. The introduction of the hand into the rectum, as recommended by Simon, of Heidelberg, may often furnish useful information.

TREATMENT.—1. In all early stages, and in all acute cases, abstain entirely from giving either food or medicine by the mouth.

2. Use anæsthetics promptly. Put the patient under the full influence of ether; examine the abdomen and rectum carefully before tympanites has concealed the conditions; administer large enemata in the inverted position of body; and, if advisable, practise abdominal taxis. If you do not succeed at first, do it repeatedly.

3. Copious enemata, aided perhaps by the long tube, are advisable in almost all cases, and in most should be frequently repeated.

4. Fluid injections may be sometimes replaced by insufflation of air in cases of invagination, since air finds its way upward better, and is more easily retained. It is, however, somewhat dangerous, and has perhaps no advantage over injections with the trunk inverted.

5. Insufflation is to be avoided in all cases of suspected stricture, since the air may be forced above the stricture, and there retained.

6. Saline laxatives are admissible in certain cases where impaction of feces is suspected, and in cases of stricture where fluidity of feces is advisable.

7. Opium, or morphia, must be used in proportion to the pain which the patient suffers. It should

be administered by the rectum or hypodermically, and should be combined with belladonna. If there be not much pain or shock, it is better avoided, since it increases constipation and may mask the symptoms.

8. A full dose of opium administered hypodermically will put a patient in a favorable condition for bearing a prolonged examination under ether, and attempts at abdominal taxis.

9. In cases of uncertain diagnosis it is better to trust to the chance of spontaneous cure or relief by repeated abdominal taxis, than to resort to exploratory operation, or in desperate cases iliac enterotomy should be done. Operation for the formation of an artificial anus in the right or left loin may be performed whenever the diagnosis of incurable obstructive disease in the lower bowel is made.

10. The operation for the formation of an artificial anus through the anterior part of the abdominal wall and into the small intestine should be resorted to only in certain cases of insuperable obstruction, in which the seat of disease is believed to be above the cæcum.

11. In all cases in which the precise seat of disease is doubtful, but the large intestine is suspected, the right loin should be preferred. If the colon here be found to be empty, the peritoneum may be cautiously opened, and a coil of distended small intestine brought into the wound.

12. My last suggestion as to the treatment is one which, speaking as I do in a medical section, I feel some delicacy in making. It is, however, I believe, a very important one; and it is this, that cases of mechanical obstruction are really surgical and not medical cases. They require manipulative measures both for diagnosis and for treatment, and they require them early. It is difficult to explain why it has come about that, as a rule, a physician is called in first, and nothing but drug-treatment usually adopted in the early periods; and it is, I am convinced, much to be regretted. The surgeon is but too often asked to see the case only in the last stage, when it is thought that perhaps an operation may be desirable. At this period the abdomen is distended, and an accurate diagnosis impracticable; but, what is worse, the stage at which abdominal taxis is most hopeful has passed. My remarks do not of course apply when the medical attendant possesses the knowledge and exercises the functions of both branches.—*Louisville Med. News.*

ADMINISTRATION OF CHLOROFORM.—T. Hughes, M.D., in London Lancet of November 2nd, says: if I were about to be placed under the influence of chloroform, I would say, "Never mind my pulse, never mind my heart; leave my pupil to itself. Keep your eye on my breathing; and if it becomes embarrassed to a grave extent, take an artery forceps and pull my tongue well out." It was the observance of this simple yet all-important rule that

enabled the late Mr. Syme to say that he never lost a single case from chloroform, although he gave it in five thousand cases. Prof. Lister has done much to enforce this rule of practice, and to him is due the credit of pointing out the *modus operandi* of this proceeding. He was the first, as far as I am aware, who explained that its action is not mechanical, but is exerted chiefly through the nervous system.—*Lou. Med. News.*

#### SUPRA-PUBIC INCISION INTO THE BLADDER FOR THE RELIEF OF TRAUMATIC STRICTURE OF THE URETHRA.

Alf. B., æt. 22, was admitted into Guy's Hospital on Sept. 18th, 1877. Seventeen months before admission he had sustained a very severe compound fracture of the right side of the pelvis, from a large piece of stone falling upon it. His left ankle-joint was dislocated at the same time, and the urethra ruptured, probably by the fractured ischium, for the wound through the skin was at the junction of the perinæum and the right thigh. He was taken at once to a provincial hospital, where the dislocation was reduced, and the limb put in splints. Catheters were at first passed, but they were not continued; and subsequently it was found impossible to introduce any. His constitutional state, which at first was extremely bad, gradually improved, and at the end of seven months he was discharged from the hospital for change of air. At this time he was passing the bulk of his water, with great straining, from the wound, and from two abscess-sinuses in the groin. A little dripped from the penis. Repeated attempts at catheterism had entirely failed. After two months' stay at home he was re-admitted to the same hospital. The attempts at catheterism were now repeated, both from the penis and the sinuses; and on one occasion a catheter was introduced from the wound into the bladder. A week later a perinæal section was performed with this catheter as a guide, and a No. 9 gum-elastic catheter was introduced into the bladder from the median line of the perinæum. This was continued in for many weeks; but at last, in the many necessary changes it was found impossible to introduce instruments of an equal size, so that by degrees smaller and smaller sizes were used until finally none at all could be introduced. After six months' stay in the hospital he went home in much the same state. Attempts were then made at home, during two months, to pass instruments, and once he took chloroform; but this failing, he was sent to Guy's. During the first few weeks after admission various operative procedures were adopted, with a view of finding the end of the vertical portion of the urethra, or providing the patient with an easy mode of exit for the urine. These

may be summed up thus—1. The sinuses were carefully slit up and explored to see if they could be traced into the urethra. 2. A "Cock's" operation was performed, in order to open a way into the bladder through the portable portion of the urethra. This resulted in showing that the urethra was not in its normal position, probably from the contraction of the dense mass of cicatricial tissue, which occupied the lower aperture of the pelvis. The operation therefore failed. 3. Cystotomy was performed from the perinæum through the prostate. This operation gave so much relief to the patient, furnishing him with an easy mode of exit for the urine, that it was determined to try and connect the new prostatic passage with the penile portion of urethra. This was accomplished toward the end of December, and by the beginning of April the new passage in its entire length appeared to be pretty well established. A sharp attack of cystitis, produced by the patient taking exercise with a somewhat stiff gum elastic catheter in him, here interrupted his convalescence for some time; and after this had disappeared it was found that when he attempted to pass water without the catheter, it would *begin* to flow through the new passage, and then would stop suddenly altogether, just as if a calculus had fallen against and plugged the new aperture. The reason of this appeared to be that the *cul-de-sac* of the old prostatic urethra ran down by the side of, and close to, the new passage; and that when micturition took place the urine entered and filled the old *cul-de-sac*, as a bag; and this, in its distended state, pressed on and obliterated the new passage. Hence, to complete the cure it would be necessary in some way to utilize the old *cul-de-sac* of the prostatic urethra. With this object the following operation was resolved on:—On June 25th the bladder was washed out with thymol solution, and then hyper-distended with some of the same fluid. A supra-pubic incision was then made, and the surface of the bladder exposed. One or two double sutures were then passed into its muscular coat, on either side of the intended puncture. On the puncture being made the thymol solution welled out freely, and was recognised by its smell. A large curved sound was then passed into the viscus through the puncture, down to the back of the bladder, and thence into the prostatic urethra, where it was arrested by the *cul-de-sac*. The sound was then given into the assistant's hands to hold steady and the patient put into the lithotomy position. The point of the sound could then be felt from the rectum, in spite of the dense cicatricial tissues by which it was surrounded, and it was seen to deviate very considerably to the right side, hence, accounting for the failure in finding it by "Cock's operation." Incisions from the perinæum readily reached it, and a director was passed into the bladder on this side. On this director, subsequently, a No. 12 catheter was passed

into the bladder. The large sound was then removed from the hypogastric incision, and the wound in the bladder closed by carrying the sutures across the incision, threading them in by a cleft-palate operation. The external skin wound was left open to granulate up. No constitutional disturbance followed this operation, which was performed under the carbolic spray in all its details, though recognizedly it was only possible to keep the anterior wound *entirely* antiseptic. No escape of urine ever took place from the hypogastric incision. A month after the operation the catheter was passed the whole length of the urethra into the bladder, and the external perineal wound left to close as far as it would. Early in September the perineal wound was so far closed that the catheter was left out at intervals, and the patient showed that he could pass urine down the whole length of the urethra in a good stream without any of the previous obstruction. At the present time the patient remains in good health, generally passing the catheter for himself, by preference, about twice in twenty-four hours, to avoid any possible future contraction in the new portion of the perineal urethra. It is urged that this supra-pubic operation, though admitted inferior to "Cock's operation" (for opening the urethra at the apex of the prostate), as far as risk to the patient, facility of performance, and general success in results are concerned, may yet be the greatest value where the "Cock" fails in success,—as, indeed, is shown by this case. Such failure can only be due when properly performed, to some displacement of the urethra from its normal position. In the present case this arose from the contraction of a vast amount of cicatricial tissue produced by a very bad compound fracture of the pelvis, but it may also be due to the pressure of tumours, or to unsymmetrical suppurations about the neck of the bladder, as in some cases of old and repeated extravasations of urine. In the present case the operation was rendered entirely antiseptic by the washing out and injection of the bladder with thymol solution first, prior to the performance of the operation. It is pointed out that even in cases where the bladder is contracted down behind the pubis, and filled with stinking ammoniacal urine, this may probably be done with success by the use of the aspiratory trocar and canula after the skin incisions have been made, but before the bladder has been incised. In this way, by alternately pumping in and sucking out fluid, the bladder may be thoroughly washed out, and finally hyper-distended with antiseptic fluid, whereby the subsequent steps of the operation are much facilitated. The method of passing the sutures prior to opening the bladder enabled the viscus to be well held up against the external wound in spite of its collapse after opening. And subsequently they enabled the wound in the bladder to be rapidly and completely closed

whereby all risk of subsequent infiltration of urine was avoided.—*The Doctor*, Nov., 1878.

### POTT'S DISEASE.

BY LEWIS A. SAYRE, M.D., OF NEW YORK.

Gentlemen, I shall not attempt to give you anything like a full lecture on this subject, but propose to make a few practical remarks and application of the treatment in the cases before us, so that you can understand the main points as well as the details of the treatment, and thus be enabled to do your patients as much good as I or any one else can do.

I shall speak first of Pott's Disease, now Pott's Disease and lateral curvature are both deformities, but one is a deformity only, while the other (Pott's Disease) is a disease.

We find this to be the result of inflammation and absorption of the bodies of the vertebræ. The misfortune is that no deformity is observed until this condition has ensued. Could we find this out in time, as we should do by correctly interpreting the symptoms presented, the disease could be arrested and the patient cured without deformity. I believe the direct or exciting cause of Pott's Disease to be traumatic, and in saying so, I do not desire to be understood as not allowing scrofula and other hereditary forms of transmitted evils to *pre-dispose* to it when there is an *exciting* cause, but I do not believe it occurs except from traumatic origin. And many have done me the injustice to say that I do not credit such evils as impoverished blood caused from scrofula, phthisis, syphilis, etc., as conducive to the disease, because I deny that they produce it independent of some exciting cause. Some injury is necessary to develop the disease, even in the depraved constitution.

It may be a fall across the hearth-rug, a gentle tip, or some slight trouble which would suffice to develop the disease in the feeble constitution, and from constant irritation cause trouble at the distal end of the nerve, and hence Pott's Disease from remote injury.

The majority of cases occur in robust, healthy children, because they do not *guard themselves against injuries* like the weakly, ill-nourished child. The healthy child goes romping and tumbling about, and gets an injury which finally results in Pott's Disease, while the child predisposed to it is careful, and goes along and misses it often times, because its bad health keeps it from exposure to violent exercise and accidents consequent upon such a life.

You will observe the young one afflicted with this disease endeavors to put on a natural splint by keeping the muscles of the body rigid and the back straight, and thus getting the relief which is only to be obtained in this way; in the stoops, it is

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with the whole body; if he jumps, it is to alight upon the toes, and keep the vertebræ from a jar.

The treatment is *rest! rest! rest!* to the part affected. Formerly this was obtained by keeping the patient upon the back for a long, long time; they may occasionally get well by this plan, but oftener they die from a worse condition of the general health, which often follows this rigid confinement. Rest, to be successful, even in the horizontal position, must be combined with extension.

The pressure from reflex muscular contraction will cause absorption, if allowed, and will leave the patient deformed. Now extension, and the plaster jacket, gives the diseased part rest, by removing the pressure; it gives extension and support, and allows the patient to walk around with comfort, thus receiving the advantage of healthful exercise while undergoing the necessary treatment.

To apply the plaster jacket, you must have first a good-fitting shirt, such as I show you here; it should be fastened with tapes under the perineum, so as to keep it from wrinkling; a pad of cotton, "the dinner pad," should be put over the abdomen, under the shirt. Now, under the apparatus, *suspend the patient with great care;—never hurt a patient.*

The point of extension is "when they feel tight." This lifts the diseased vertebræ off of one another, and straightens the spine.

The patient is now ready for the plaster bandage. The roller is made of crinoline, or crossbarred muslin; rub the plaster of paris into it, and roll up lightly. Now drop the rollers into the water, deeply enough to cover them over *endwise*; this drives out all gas. Now bind the roller, commencing just above the hips, so that the pelvis supports the body; apply smoothly and evenly some two or three times, and smooth the wrinkles out as you proceed with the hand.

You must make the shirt fit like the skin, have equal and uniform pressure, and I defy you to have a slough. Now we take this child down, remove the pad from over the abdomen, this will leave room for a full meal. I take my hand and press the jacket down in the groins, thus making it fit the child everywhere; lay him flat down on his back until the plaster sets; I then turn him loose, and he can go on all right.

There is one great advantage in using plaster of paris; it is porous, and you can breathe through it, so that the child can perspire, the air can reach his skin; if we were to varnish this child we would kill him.

To find whether a case is fixed or ankylosed, and cannot be straightened by extension, I take this malleable piece of soft metal strip, mould it along the spinal curve, take this curve on paper, put the patient under the extending apparatus; draw him up; let him swing long enough to overcome the muscles; take the curve again, and if it

is the same, the case is irremediable and permanent, and should be let alone; if there is a new curve, you have a case for treatment.

NOTE.—The results of the cases which were treated by Dr. Sayre before the Medical Society were highly gratifying, and very striking; for example, a poor, weakly child, unable to get along at all, in a few minutes after Dr. Sayre had given him a *new back*, was running around, greatly to his own delight and his parents' joy.

We have only given Dr. Sayre's remarks on Pott's Disease. We have made no mention of the head rest, or "jury mast," for we refer our readers to Dr. Sayre's book for a description of all apparatus used, as well as his treatment, and all other information connected with this trouble. No physician can afford to be without the work, and whoever once sees the glorious results of the treatment introduced by this great surgeon, will ever regard him as one of the great benefactors of the human race.—*C. A. B. Southern Clinic.*

#### VARIETIES OF PULMONARY PHTHISIS.

EXTRACTS FROM A LECTURE DELIVERED IN BELLEVUE HOSPITAL MEDICAL COLLEGE,  
DEC. 10, 1878.

BY ANDREW CLARK, F.R.C.P., LONDON.

I will give you the definition of the term phthisis. I understand by the term phthisis the assemblage and progression of symptoms which are due to an ulcerative or suppurative destruction of more or less circumscribed non-malignant deposit in the lung. When we examine the lungs of patients dead of phthisis, we may, I think, be justified in classifying the diseased lungs into three distinct groups. I may say, we can do that without great degree of refinement, and we can classify them according to what is apparently the dominant element of destruction in the lung. In one group, obviously, the dominating anatomical element is what is called tubercle. In the second group the dominant destructive agent is some sort of pneumonic exudation. In the the third group the dominant element is some kind of fibroid tissue. Wherefore at this stage we are permitted to say there are three varieties of phthisis, speaking after their anatomical elements: one in which the tubercle is the dominating element—tubercular phthisis; one in which some kind of pneumonic exudation is the dominating element—pneumonic phthisis; one in which some kind of fibroid tissue is the dominating element—and we call it fibroid phthisis.

Now, we are at once brought face to face with one of the difficulties surrounding this disease which makes it quite difficult for the student to understand. When I say that one of these varieties

may be called tubercular phthisis, I have said, and I now repeat it, that the dominating destructive agent is tubercle. But tubercles when deposited in the lung irritate it, and as there are very different textures in the lung—simple cellular textures and simple fibrous textures—they excite in these textures secondary changes. In tubercular phthisis these changes are of two kinds, which are more or less prominent.

When tubercle is deposited in the lung, and gives rise to irritation, it either affects the cell structure of the lung, producing some sort of pneumonia, or it affects the fibrous connective-tissue element of the lung, producing some sort of fibroid complication. And these secondary complications occur in variable degrees, so that, in some cases of tuberculous lung, there is a very large quantity of fibroid material with but little pneumonic material; while in other cases there is a large quantity of pneumonic material with but little fibroid material. You will see, by and by, that this is an important point with regard to the history of phthisis; for according as the secondary complication is pneumonic or fibroid, so is the clinical history of every case of phthisis. Now that being so with regard to tubercle, we have the same effect with regard to pneumonia. Pneumonia occurs alone, but when the pneumonic exudation is not absorbed when it remains and disintegrates in the lungs, a new source of irritation, so to speak, is established, which begets a secondary irritation, and we may have complicating pneumonic phthisis-fibroid tissue, or we may have even the deposit of tubercle. The same thing may be said of fibroid phthisis, although fibroid phthisis which has fibroid tissue for its destructive agent may occur alone, and does so occur more frequently than the other forms, yet it may sometimes have a secondary complication either the cheesy or tubercular change.

Now there is a second kind of complication of which I wish to speak before I proceed further. We all understand what is meant by tubercle, but we do not, probably, all understand what is meant by pneumonia. There are at least three anatomical varieties of pneumonia which may be mentioned at this point. There is the common form of croupous pneumonia, which occurs as an acute disease and usually affects the base of the lung, the anatomic element of which is a cell something like the white cell. It runs its course in from seven to nine days, and usually terminates by the melting and absorption of the exudation, and final restoration to health.

But there is a second form, which has received the name of caseous pneumonia, of which we have an example illustrated in this diagram. This caseous pneumonia, as you all know, presents a peculiar appearance to the naked eye. The exudation looks like moist cheese, and the anatomical element is chiefly an epithelial-like cell.

There is a third variety, which is called catarrhal pneumonia, that is, a kind of pneumonia which occurs in connection with bronchitis.

Now the last of these three forms of pneumonia is capable of producing an exudation, which not being absorbed, undergoes retrogressive changes, and brings the case in the pale of our definition of phthisis. But it will not be necessary to allude to this to-day, and I will omit the question of catarrhal pneumonia altogether, not only because it is debatable ground, but because it would be difficult to make it clear. I will content myself with alluding to common croupous and common cheesy pneumonia as conditions in phthisis.

There is one more difficulty: I think that any one, by looking at these diagrams, will admit that their appearances are sufficiently distinct to warrant dividing them into three groups. There is another difficulty still. It is claimed by pathologists in France, and by many in England, and by many in America, that however unlike all these appearances may be, although tubercle, a little yellowish, grayish body, standing out upon the cut surfaces of the lung, may appear very different from cheesy pneumonia, that histologically and structurally they are homologous, and that caseous pneumonia is nothing but infiltrated tubercle. Nay, some pathologists go a little further, and, straining the use of language, will say that in these fibroid lungs the fibroid masses are still homologous with tubercle; that you do not see the tubercles there, but that the tubercles were once there, and as they were formed they were converted into fibrous tissue, and that from the fresh fibrous tissue so formed at any time may be developed distinct tubercle. This is, I say, straining language further than it is warrantable, but it is still held as an argument by able observers in England.

I will not give way to this argument, but I repudiate the histological doctrines that these forms of pathological degeneration in lungs are one, but it will not be necessary to enter into this subject to-day because I think I have a much higher argument in defence of my views in reference to these changes. That argument is this: I think the truest criterion to the difference in pathological products is not to be found in an anatomical structure. It is to be found in the life history, so to speak. This I take to be the most important point with reference to diagnosis, for forms of anatomical expression are but few, consisting chiefly of cells, fibres, and granules; in fact, we can enumerate the destructive elements of disease upon our fingers, while the dynamic states of which they are an expression may be many. Furthermore, there are forms of anatomical expression which clearly recognize different life states. For instance, one which occurs to me:—When we place under the microscope a section of a tubercle and a section of Peyer's gland from a typhoid fever patient, I should like to know who has ever been able to distinguish between the



two. The morphological changes are the same, but there are important clinical differences in the diseases which have given rise to these morbid changes. So, I say, we have for the present a structural argument; but I place the argument for distinction upon a much higher ground, and I repeat that the true criterion of difference between the pathological changes is to be found much more certainly in their life histories than in their final anatomical expressions. Before leaving this question, I will make another observation in regard to structural characters, namely, that the characteristic anatomical element of tubercle is the lymphoid cell; that the distinguishing character of fibroid degeneration is a fibroid mass with fibro-cellular elements in it. Now, the question arises whether such mere pathological curiosities which can be distinctly recognized in the dead-house can find adequate expression in the wards of the hospital. If that were so, I should be content to leave them where they are, but I think these distinctions are not merely pathological curiosities, for if I follow them into the wards there can be recognized much more distinctly than in the dead-house, these three groups of phthisis which have been anatomically characterized. The better to illustrate what I have said, I will sketch the history of a case from each group.

First, I will give a representative case of tubercular phthisis, that form of phthisis in which the dominant anatomical element is tubercle, plus the secondary consequences in some form of pneumonia and some kind of fibroid tissue. We shall suppose the disease occurs in a girl about eighteen years of age. She has large pearly conjunctivæ, flushing cheek, and early symptoms of exhaustion. When the doctor finds her in this condition he makes a physical examination of the chest, and finds nothing which will account for the phenomena and constitutional disturbance. By and by, she begins to have fever in the evening, and as yet no evidence of lung trouble can be found. Perhaps six months after the beginning of this the physician discovers simply a crepitation at the summit of one lung, and he now knows definitely that the case is one of tubercular phthisis. Then begins cough, expectoration, and irregular fever.

The extension of the disease is steady, but the constitutional symptoms take the lead of local signs. The patient goes on, the disease gradually progressing, and probably within four years, at most, the case comes to an end. Now, before leaving that class of cases, let me make an observation—that the slowness or rapidity with which the case progresses, depends upon the secondary complication. I think it is almost an axiom that tubercle *per se* does not kill. If by any means we can keep the patient from having a further increase of tubercles, and what is more frequently possible, from further pneumonic or fibroid complications, the patient may live for many years.

It is according to the character of the secondary complications that the future of a case of pulmonary phthisis is determined. If the secondary complication is fibroid, the progress of the case is slow, and the patient may enjoy comparatively good health for a long time. If, on the other hand, the secondary complication is pneumonic, then there are developed in the lungs little pneumonias which produce fever and wasting, and the case is one which always progresses more or less rapidly.

In tubercular phthisis with secondary fibroid complication, the prognosis may be very good indeed. It is in such cases that some people think by drinking whiskey that a secondary fibroid complication takes place, and the life of the patient is prolonged beyond the average.

The peculiar clinical feature, however, of tubercular phthisis, is that at first there are but few local signs with profound constitutional disturbance.

Now we come to the clinical character of cases of pneumonic phthisis. The two kinds of pneumonia which we have taken into consideration are the ordinary croupous pneumonia and the cheesy pneumonia. Now I will represent croupous pneumonic phthisis by giving a specimen case. It is typical, and will answer for many cases. Here is the lung of a patient who was well known in the London Hospital; his name was MacIntosh; he came into the hospital with all the usual signs of pneumonia. The pneumonia, however, had some features which were exceptional, and which led me to give the prognosis in the case which I did. He had the usual symptoms of pneumonia, with this qualification; dullness over the seat of the disease was more complete than usual. There was diminished tactile vocal fremitus instead of increased. Instead of bronchial breathing there was feeble breathing, and, in short, there were present symptoms almost like those present with pleuritic effusion. There was no tubular breathing. There was diminished vocal resonance; and the dullness was considerable, but as there was no displacement of organs, no projecting of intercostal spaces, and there were profound constitutional symptoms. I had no difficulty in arriving at the conclusion that the case was one of pneumonia. I then predicted that we were certain to have trouble with this case, for I had observed that when there remained diminished tactile fremitus, and such physical signs as have been enumerated, the lungs were unable to fulfill their function, and so it was with MacIntosh. He expressed himself as feeling quite well, but the physical sounds remaining were diminished breath sounds, and diminished vocal resonance. He got quite well and went out of the hospital, but had this solid mass in the right lung. He was not long out, say about two months when he returned. I then watched him for twenty, two months. The course of the case was simply that of ordinary pneumonia, in which the pneumonic exudation was unabsorbed, probably from



local circumstances, for there was no family history of ill-health, and there were no constitutional symptoms. There was probably an increase and a suppurative disintegration of pneumonic exudation; at all events the pneumonic lung broke up. I then predicted another thing, in which I was quite wrong. For, it had been my experience that whenever a pneumonic exudation broke up, that within a month of that time, evidences of what is called tubercle would appear in the other lung. I have not known an exception to this law, and in Peter MacIntosh, when the pneumonic lung began to break up there were evidences of something wrong in the other lung, and I then made the prediction that tubercle was developing there. At the end of twenty-two months he died, and here is an illustration of what we found upon post-mortem examination. There is nothing here, as you see, which can be called tubercle, there is simply lobular pneumonia. Now, that is a rather quick example of what may be called pneumonic phthisis arising from a common inflammation.

The diagnosis of these cases is not very difficult, because we have a slow inflammation followed by trouble at the base of the lung; the trouble there never disappearing, and being followed at last by symptoms of phthisis. And if to this you will add the fact, that the summits of both lungs are early involved, you are probably safe in making the diagnosis of croupous pneumonic phthisis.

Here I am called upon to make another qualification. It is in the early stages of these affections that I believe we can more readily recognize them. In the later stages it is difficult, and the reason for this is plain. In the early stages of these affections the distinctive anatomical characters can be made out from the history of the case, but in the later stages the whole symptoms are due more to the destruction of lung tissue than to the nature of the destroying agent. Hence, it is most important that we should not forget that in the later stages it is next to impossible to recognize these distinctive changes. It is in the early stages alone that we can be sure in making such distinctions, and then I think it can be done.

*(To be continued.)*

#### PATIENTS IN THE LONDON HOSPITALS.

In the out-patient's department one can see, in a single afternoon, nearly every form of uterine disease, from the mere erosion of the cervical mucous membrane to severe cases of cancer of the womb; and when you consider that this is one of the smaller hospitals of the city you can easily see the almost unlimited field that exists here for the study of any special class of diseases. I was much interested in Dr. Williams' cases of cancer of the breasts and of the uterus. From what I can learn,

he has made some remarkable cures that have remained permanent some as long as nine years. His treatment is as follows: Add on equal parts of bromine to four of alcohol, the mixture being made in small quantities, as it undergoes change by keeping; and it must be made with the greatest caution, as the combination of the alcohol and bromine, when first made, emits a most stifling vapor, which if brought in contact with the eyes, might produce serious results. Of this mixture, from ten to twenty drops are injected by means of a subcutaneous syringe into the centre of the tumor. As a consequence of the injection, the diseased portion undergoes a change and comes away in the form of a discharge—any unhealthy portions that remain being painted over with the solution as may be needed. If any thickening remains, it may be necessary to repeat the injection after the effects of the first have subsided.

Dr. Williams believes that the bromine, in acting as a caustic, has a specific effect upon the cancerous disease, and that, if the case is taken in hand before the constitution becomes involved, or at the beginning of the disease, the prospects are good for a recovery.

I also saw several cases of hip diseases in a branch of the Samaritan Hospital that were doing remarkably well under a treatment that I have never seen adopted in America. The diseased thigh is kept straight and at rest by means of a long, soft-iron splint, covered with leather. The splint is moulded to fit the outlines, and extends from the middle of the leg nearly to the axilla; this splint is kept in place by means of straps and bandages, and under the side of the sound side is placed, fastened to the bottom of the shoe, a light iron foot-rest, about three inches in height, so that, when the child moves about on crutches, the foot of the diseased side is considerably above the ground, and, as a consequence, the weight of the leg acts a counter-extending force whenever the patient is in the upright position.

I have been attending a course of lectures delivered at the Royal College of Surgeons, by Spencer Wells on ovariectomy. The practical deductions that I made from his lessons were: First. That a certain proportion of cases recovered after tapping, therefore give the patient the benefit of the operation of tapping first. Second. That the more extensive the incision in the abdominal wall, the greater the mortality. Third. Count the sponges and forceps before you begin the operation, and see that you have them all before the abdomen is closed. The lecturer illustrated the necessity of this by relating a case where he closed up the abdomen, accidentally leaving a sponge in the cavity, and another case where a pair of forceps was left in the same way. In both cases the foreign bodies were removed and the patients recovered. Fourth. Use the antiseptic spray while operating, and the antiseptic gauze as a dressing to the wound. Fifth. Use the bichloride of methylene as the anæsthetic. He believes it to

be much safer than chloroform, and it is pleasanter and acts more rapidly than ether. In administering it he uses Dr Jenker's anæsthetic apparatus, by which the quantity is easily regulated, and without any waste of the remedy.

At Spencer Well's invitation I was present at one of his operations for ovariectomy, or rather the removal of an immense fibro-cystic tumor from the posterior portion of the uterus. He operates slowly and carefully, and in this case as in every other, and I have witnessed several since my arrival here, the pedicle is tied with a strong silk ligature and returned to the abdominal wound closed by sutures, no drainage tube being left in.—*Dr. Cushing, Pacific Med. Journal*

### RAPID LITHOTRITY.

Dr. E. L. Keyes (New York Pathological Society) exhibited several specimens of calculi, each of them interesting as illustrating some special point.

The first case illustrated the mildness of rapid lithotripsy and its efficiency. The patient, a man of sixty-three, after a varied set of bladder symptoms, was examined by Dr. Van Buren in October, 1877, and a calculus detected. The patient could not remain in New York for operation, but returned to his native city, where a surgeon put him to bed for seven weeks while he was being relieved of his stone by ordinary lithotripsy, and kept him, in all, from his business three months, removing considerable calculous material—phosphatic.

As the bladder symptoms continued, however, and his surgeon failed to find any further fragments to crush, the patient returned to New York in October, 1878.

Upon examination, one large and two small angular fragments were found in the bladder. The urine was highly ammoniacal and full of pus. Kidneys sound.

At a single sitting of rapid lithotripsy, lasting about an hour (Keyes's lithotrite, Bigelow's washing apparatus), about one and one-half drachm of phosphatic stone was removed from the patient's bladder.

No more reaction followed this operation than had habitually attended a sitting by the old method. No anodyne was given excepting *M. v. Magendie's* solution hypodermically at the time of the operation. The ammoniacal odor rapidly disappeared from the urine, there was no chill, no fever. The intervals of urinating lengthened, the first day from one up to two hours, and in a few days reached three and four hours.

On the sixth night the patient slept all night a thing he had not done before for several years. An examination ten days afterwards failed to detect any stone, and the patient left the city for his home.

Nothing could illustrate the advantage of rapid over slow lithotripsy more forcibly than this case.

The second case was that of a man of sixty-eight, who had carried a smooth uric acid stone in his bladder for several years. This was totally removed at one sitting, by rapid lithotripsy, in forty-two minutes. The stone was one and one-half inch in its long, and about three-quarters of an inch in its short diameter. The first crushing lasted twenty minutes, and four minutes' washing yielded 177 grains; the second crushing lasted six minutes, and 4 minutes washing yielded 40 grains; the third crushing lasted four minutes, and two minutes' washing yielded 19 grains of fragments.

Here a stone weighing half an ounce is taken from the bladder in three-quarters of an hour. Recent exploration of the bladder proves the absence of stone. The patient made a good recovery. He had no chill, and but little fever after his operation. The case is a typical one as illustrating the value of rapid lithotripsy.

The third specimen shown by Dr. Keyes was a number of small phosphatic calculi of varied size and a mass of mortar-like material, one side of which was flat and blood-stained.

These specimens were taken from an old gentleman after death, upon whom no operation had been attempted, on account of his general condition during life. The specimens were shown to illustrate the method of formation of phosphatic calculi within a diseased bladder. The mortar-like mass had been torn off from a semi-ulcerated surface within the bladder to which it was firmly adherent. The smaller calculi represented phosphatic accumulations around small nuclei which had become detached from this mass, while the mortar-like (phosphatic) material itself was deposited only (and quite firmly) upon a roughened, eroded surface of the bladder wall. On no other portion of the mucous membrane was there any deposit.

Dr. Keyes re-affirmed the proposition formulated by Thompson, that phosphates, amorphous or crystalline, are not apt to accumulate into stone in the bladder, excepting upon a nucleus, or upon roughened, ulcerated, excoriated portions of the bladder wall. A smooth mucous membrane is the best guarantee against the formation of phosphatic stone; but, unfortunately, a bladder which is sufficiently inflamed to allow the precipitation of crystalline phosphates very rarely remains long smooth.—*Med. Record*, Nov. 16, '78.

### DIABETES MELLITUS CURED BY EXTRACT OF NUX VOMICA.

Two cases are reported by Dr. Eng. Zarzana, in the *Gazzetta Medica di Roma*. The first patient, a woman, had been passing a very large quantity of water for three years; she was very weak, her

sight was affected, and her thirst was great. At the time the treatment was begun, she was passing twelve Roman libra of urine in the twenty-four hours; it was not albuminous, but contained a large quantity of glucose. At first she was given daily three-quarters of a grain of the alcoholic extract of *nux vomica*, dissolved in 3 ozs. of distilled water, and the dose was increased by three-quarters of a grain every three days, until she was taking  $4\frac{1}{2}$  grains per diem. Under this treatment the quantity of urine diminished, and it became very acid, flocculent, and coloured by biliary pigment. At the same time the glucose diminished until only traces of it could be discovered. The general symptoms improved, and the patient was restored to her previous good health. The second patient was a large, robust man, seventy-two years of age. During eleven hours he passed two Roman libra and eight ounces of urine, which was rich in urates and albumen. Under the use of the *nux vomica*, the glucose gradually diminished in quantity and finally disappeared entirely.—*The Doctor*.

#### MONOCYSTIC TUMOR OF THE OVARY IN DOUGLAS' CUL-DE-SAC.

CLINIC BY PROF. THOMAS, NEW YORK.

Our next patient is Mrs. Mary G., a native of the United States, and fifty years old. She has had four children and one miscarriage, and has been a widow for the last fifteen years. Her last pregnancy occurred seventeen years ago. First let us get the history of the case from the patient herself, as far as we are able.

How long have you been complaining, Mrs. G.? "Well, I cannot exactly say how long." For five years? "Yes, for at least seven years; but I have been worse during the last two years." From what have you suffered during that time? "Weak back, pain in the back, and hot flushes running over the bowels and then down along the thighs." From anything else? "A great pressure on the bladder, causing me to pass my water very often."

Any one practising medicine in a superficial manner would be very apt to prescribe for such a case as this in a general way, without thinking it worth while to make any physical examination whatever, and, perhaps, he might not be very greatly to blame for doing so. You have heard the symptoms of which this patient has been complaining for seven or eight years, and which have become greatly aggravated during the last two years. Suppose she had come to your office with this history, and you were not satisfied to treat the case on general principles—perhaps as a neurosis of the part of the system affected—and had insisted on an examination per vaginam. The following is the condition of affairs which you would thus have

discovered. In the first place, the uterus is markedly anteflexed, and so pressing directly against the bladder. At once, you perceive, we have a sufficient explanation of the symptoms in connection with the latter organ, without resorting to the hypothesis of any neurosis. As the menopause occurred five years ago, this malposition of the uterus is important only on account of its effect upon the bladder.

But this is not all that you would have ascertained by your exploration. On passing two fingers up behind the uterus (and I would strongly advise you always to employ two fingers, instead of the index one alone, whenever you wish to reach well up into the pelvic cavity, on account of the great advantage which this method gives for so doing), you would have discovered a perfectly movable mass of considerable size, in Douglas' cul-de-sac. The first thing that suggested itself to me when I found it, was, that it was a fibroid, and I thought that its mobility might be explained by the fact that it, perhaps, had a long pedicle. But on resorting to conjoined manipulation (which could be performed with peculiar facility in this case, both on account of the senile atrophy of the tissues of the abdominal walls and their laxity, from the effect of child-bearing), I found it was altogether too soft for a fibroid.

Further palpation, with one finger pressed up into the rectum, enabled me to determine that it was undoubtedly a slowly growing ovarian cyst of about the size of a goose egg, which had fallen down into Douglas' cul-de-sac. By its presence there all the symptoms of the case were satisfactorily explained. By its mechanical effect in pressing the body of the uterus forward upon the bladder the irritability of that viscus was unquestionably due, and the other troubles of which the patient complained were all accounted for by the reflex nervous disturbance occasioned by the presence of this mass in such a position.

By thus ascertaining by physical exploration the actual condition of the pelvic viscera we have gained two very important points. First, we have found how utterly useless all general remedies would be in the case, and, secondly, we may be able to save the patient from the serious operation of ovariectomy.

It is impossible to say whether this cyst is going to increase in size or not; for it is, in my experience, a very uncertain matter. These growths not infrequently remain dormant, or, at all events, increase but very slowly, for many years. I now recall the case of a young lady in this city, who, while returning from the theatre one evening, in a stage, suddenly felt a severe pain which seemed to be caused by the jolting of the vehicle. I was sent for late at night, and on making an examination, I discovered a cyst of the size of a large apple, just in the position of this one. For eight and a half

years its growth was exceedingly slow, but it then suddenly began to increase very rapidly, and at the end of six months more I removed a very large monocystic tumor, by ovariectomy.

I have also known of another case in which the mass was in the pelvic cavity, and could be felt through the abdominal walls, rolling about under the hand when palpation was made, but in which there was neither increase nor diminution in size for a period of four years, during which the patient was under observation. The above remarks apply only to this monocystic variety of ovarian growths, and not to the polycystic tumors which are so much more frequently met with.

But suppose this cyst should increase markedly in size. I should then recommend aspiration through the walls of Douglas's cul-de-sac. This would not be done for the purpose of establishing the diagnosis, but in the hope of effecting a cure in this way, as is sometimes the case. Should such a happy result not be obtained, I would perform vaginal ovariectomy, an operation which, to my certain knowledge, has been performed in at least twelve or fourteen cases, and in no instance, so far as I am aware, with a fatal result. The manner of performing it is, briefly, as follows: When the growth has attained the size of a child's head at birth, an incision is made through the posterior wall of the vagina, and the contents of the cyst drawn off with the aspirator. The walls of the sac are then hooked with a tenaculum, and having been drawn down through the wound, its attachments are slowly severed by means of the *écraseur*. But, you must understand that, notwithstanding the immunity from loss of life that has hitherto attended it, this is a capital operation, and is by all means to be avoided if possible.

What, then, is to be our treatment here at present? Very little attention need be paid directly to the cyst, I may remark. Some would apply electricity, the constant current being employed for the purpose. But the question of the utility of this agent in the treatment of ovarian growths is, as yet, in a state of utter chaos. One gentleman, Dr. Semileder, of the city of Mexico, was successful in curing six cases in succession by electrolysis, and hence, encouraged by this remarkable result, he naturally recommended it in all cases. The method was tried here very extensively, and I have myself seen it employed in three instances. The first case was at the Woman's Hospital, and was under the charge of Dr. Semileder himself. He made three applications of the electricity, and by the time they were completed the temperature had gone up to 104 degrees. The operation of ovariectomy then had to be hurried through with, and I think the patient was thereby saved from the peritonitis which seemed so imminent.

In the second case in which I saw electrolysis employed, I had made a little mistake in diag-

nosis, thinking the tumor to be of a fibro-cystic character, while it was in reality an ordinary polycyst of the ovary. In that the application was repeated five or six times, when acute peritonitis supervened, and soon put an end to the patient's life. The third case was that of a female physician, and ten days after the electrolysis I saw her death in the paper, the fatal result being caused here also by acute peritonitis, in consequence of the operation.

In this connection, I merely state facts which have come under my own observation, and draw no deductions; but I think I have said enough to warn you that it is at least best to be cautious in the use of this method of treatment. Some time ago I went to Boston, on the invitation of Dr. Ephraim Cutler, a very faithful worker in this department, and there saw him make use of electrolysis in the case of a colored woman. This was the only instance in which I have seen an ovarian cyst in one of the negro race. The rarity of this affection, however, is compensated for by the remarkably frequency of fibroids among negroes. By this means Dr. Cutler succeeded in reducing the tumor to the size of a cocoon, but, unfortunately, after a time it commenced growing again, and having rapidly attained a size greater than it had ever had before, ovariectomy was finally resorted to. I do not know the result of the operation.

Dr. Ward informs me that just a month before his death, Dr. Peaslee performed ovariectomy in the case of a patient in whom electrolysis had been employed by another gentleman, and had given rise to acute peritonitis. She died upon the table.

In this case no medicine of which I have any knowledge will be of the slightest service in getting rid of the cyst or preventing its further growth.—*Med. & Surg. Reporter, Dec. 14, '78.*

#### POTT'S DISEASE, SAYRE'S JURY-MAST.

This little child has antero-posterior curvature of the vertebral column—about the junction of the dorsal and cervical divisions. The weight of the head here presses upon the suffering, the inflamed bones. It must be supported and the bones relieved before we can hope for any relief. I have often explained to you the difference between this kind of deformity, and a lateral curvature. In these cases you have a positive, a destructive disease of the bodies of the vertebræ—leading on to softening, to suppuration, to death or permanent deformity if not arrested, whilst a lateral curvature is a functional disorder, a defective condition of the spinal muscles, a mere want of equilibrium in the muscles of the two sides of the body. Those of one side may be tonically contracted and over-

come the opposing. Paresis may seize one group, then the antagonistic muscles in their normal state of contraction alone will throw the column out of its proper line. Hence you see how radically the affections differ.

The plaster jacket with which so much can be accomplished in antero-posterior curvature implicating the vertebræ below the middle of the dorsal region is not alone sufficient to afford relief in this case—the curvature is too high, something else must be substituted or added to the appliance. The plaster jacket reaches only to the arm pits, a curvature below this level is more surely relieved by it than by any other method yet tried. For cases above this point Prof. Sayre has suggested what he calls the "Jury Mast apparatus" in addition to the jacket. "It consists of two pieces of malleable iron bent to fit the curve of the back. To the lower portion are attached three or more roughened tin strips long enough to go nearly around the body. From two cross pieces of the upper extremity of the iron pieces springs a central shaft, carried in a curve over the top of the head and capable of being elongated at will. To this is attached at its upper extremity a swivel cross bar with hooks from which depend straps supporting a head and chin collar."

I suspend this patient, as for the application of the plaster jacket, and after the body is well covered with the rollers, over of course this net shirt, the jury mast apparatus is placed in position. It is fitted, you observe, carefully to the back, and then secured by a few more turns of the well dusted and water-soaked plaster bandages. Thus placed in position, I adjust the straps under the chin and around the back of the neck and secure these to the cross bar—the "swivel cross bar."

Now, you see the apparatus in position—it is already solid. Its argument you can well comprehend—the jacket supporting the weakened spine below the diseased point, the jury mast apparatus lifting the head and neck up and relieving the inflamed vertebræ from their weight. I hope to be able to bring this patient before you again that you may watch the treatment and estimate its value.—*Lancet and Clinic,*

#### LAPARO-ELYTROTOMY, A SUBSTITUTE FOR CÆSARIAN SECTION.

Dr. Hime (Lecturer on Midwifery and Diseases of Women, Sheffield) reports in the *Lancet*, Nov. 9, the first European case of this operation. The patient, a primipara, was suffering from cancer of the recto-vaginal septum, owing to which the vaginal outlet was reduced to about two inches. Fæces were passed by the vagina, and the patient was reduced by vomiting and diarrhœa, and intermittent hæmorrhages. When seen on July 14,

she was in labour at full term, but the pains had ceased for some time, the os being fully dilated, the child's head above the brim, and the child alive. The patient was removed to the Woman's Hospital, and the same evening Dr. Hime operated. Owing to an accident, antiseptic measures could only be partially employed. The patient was chloroformed, and an incision was made through the abdominal wall in the direction of a line drawn from the spina iliū ant. sup. sinist. to the spina pubis. The peritoneum, which was much more ample than in non-pregnant persons, having been reached, it was drawn upwards without being wounded; a blunt probe was passed up the vagina, and by it the upper part of the vaginal wall was pushed into the bottom of the wound, where it was seized by hooked forceps, and then divided. The hand having been passed through the opening thus made, came out at once on the dilated os uteri, which was occupied by the bag of waters and the child's head. Turning was rapidly effected, the child being delivered through the incision in the groin, and the placenta followed spontaneously. No more blood was lost than in an ordinary labour during the operation, which lasted about twenty minutes. The patient, who nearly went off twice owing to the chloroform, was very violent after the operation, and had to be held down in bed. She was rallying when, after a couple of hours, she unexpectedly sat up in bed, but soon grew livid, and sank dying (evidently from cerebral anæmia).

At the autopsy (at which Dr. Hime demonstrated the operation to his class), the peritoneum, uterus, and bladder were found uninjured, and the upper part of the vagina, as well as the uterus free, from cancer. Dr. Hime discussed the merits of laparolytrotomy as compared with craniotomy and Cæsarian section. As compared with the latter, he says: "it avoids almost all the capital dangers of Cæsarian section, and is not more difficult. The wound is much less extensive, the peritoneum and uterus are not wounded at all, nor is the abdominal cavity exposed to danger from infective fluids, cold or mechanical injury; the danger of hæmorrhage is much less, the shock is less, and the delivery of the child is quite as easy. As compared with craniotomy, this operation is simplicity itself, and the results hitherto obtained much better, being absolutely good for the child, and for the mother most salutary results have also ensued." Dr. Hime adds, in conclusion, "considering the easy nature of this operation, the certainty of saving the child, and the strong probability of saving the mother, it is a question how far craniotomy will ever again be justifiable, and whether Cæsarian section should not drop into oblivion." Should the peritoneum be accidentally opened, the wound will be much less than in Cæsarian section, and will be most favourably situated to favour the escape of any blood, &c., from the abdominal

cavity. The child was alive five months after the operation.—*The Doctor*.

### BLOOD LETTING.

In the *Lancet* of November 2, is an interesting clinical lecture on this subject by Professor Wharton Jones, who thinks that it is time to consider whether by the prevailing abstinence from venesection of important organs are not often allowed to run a prolonged and disastrous course, which might be prevented by the timely abstraction of blood in such quantity that the loss of it could not be injurious to the patient. Mr. Wharton Jones is not alone in his opinion, which he ably supports by reference to his own specialty. But be, and the domain of ophthalmic surgery, similar favorable results could be obtained, and the last few years have every now and then witnessed competent observers lending their voice to the advocacy of a return to the practice of occasional blood-letting. The indications so familiar to our youth are laid down by Mr. Jones in terms that vividly recall the practice of the last generation; and although it is to be hoped we shall not, by a violent reaction, pass again to the other extreme, it seems time to revise our views, or at any rate to re-examine the results of our predecessor's practice.

The argument might be extended to other active measures. The word antiphlogistic is now seldom heard, and the means it included are so little resorted to in numerous cases, that we doubt not much preventible mischief often results. The public too, has become so imbued with the necessity of support and stimulants, that we see the simple antiphlogistic diet and regimen regarded with horror, even by those invalids who have manifestly strong constitutions, and have been over-fed.

It is thus not uncommon to see cases which have been "kept up" by full diet, including wine or beer, getting worse, or at any rate not improving under the medicines which are trusted to cure them; which on a change to the "lowering" system of our youth, at once put on a new aspect. We are by no means sure that there is not now as much high living and as much need of reducing as ever.—*The Doctor*.

**RUBBER BANDAGES IN THE TREATMENT OF ECZEMA AND ULCERS.**—Dr. Bulkley, in a paper read before the New Hampshire Medical Society, gives the results of his experience with the solid rubber bandage of Dr. Martin, not only in chronic ulcers of the leg, as first recommended by the latter gentleman, but also in several forms of eczema of the part, detailing twenty-seven cases. The bandage is made of pure rubber, should be ten or twelve feet long and about three inches wide, and provided with firmly attached tapes at the free end.

It should be applied in the morning before the patient leaves the bed, and not too tightly at first, the object being to support the relaxed tissues of the skin and its vessels, not to check the circulation. One or two turns should be taken around the bottom of the foot, and then avoiding the heel the bandage should be wound about the leg without "reversing" up to the knee, where it is to be secured by the tapes. There should be nothing between the rubber and the skin. At bed-time it is to be removed, carefully washed with water until perfectly free from the retained perspiration and discharges from the diseased skin, and left unrolled to dry over night. For the first day or two it may cause some discomfort to the patient, but afterwards is worn without inconvenience. We can vouch that it will be found to be serviceable in many cases of chronic eczema, especially in those accompanied by deep infiltration and in those dependent upon a varicose condition of the blood-vessels. Dr. Bulkley states that he has applied it with benefit even in acute and subacute forms of eczematous inflammation. Of its great service in the majority of cases of chronic ulcer of the leg both Dr. Martin and Dr. Bulkley offer abundant testimony. The bandage should be worn in all cases for some little time after the cure seems complete.—*Boston Med. Journal*.

**TRANSFUSION.**—At the meeting of the Société Biologie, Dr. Brown Séquard gave an interesting account of his experiments on transfusion. He had made use of different sorts of liquid for transfusion, such as normal blood, blood without its fibrine, and milk. In such case he found the results to be the same, but in the case of milk the quantity that it was necessary to inject was more considerable than in the others. Ninety five grammes of blood was drawn from a dog, and were replaced by the same amount of milk. Shortly after the operation (about forty-five minutes) there was no trace of milk globules to be found in the blood, and the dog has continued in excellent health ever since the operation, which took place more than five months ago. M. Malassez found, upon examining the blood after the transfusion, a greater number of white globules than normal. In concluding his remarks, Dr. Brown Séquard expressed the opinion that the liquid injected should be at least at a temperature of 10° to 12° C. It was preferable, he thought, to choose the arteries rather than the veins, and recommended the operation to be done very slowly, in order to allow the liquid injection to acquire the temperature of the blood. Transfusion also succeeded in animals when the blood made use of comes from a species of animals different from that of the one under experiment. It appears that Dr. Thomas, of New York, has tried the transfusion of milk on the living subject, and is convinced that it acts as well as blood.—*Lancet*.

**SUSPECTED EPULIS RESULTING FROM A CONCEALED TOOTH.**—A girl fourteen years of age came under observation (Charity Hospital) suffering from a hard tumor of the upper jaw, located beneath the angle of the nose. It had been of slow development and unaccompanied by pain. The skin on the surface was congested, but no hemorrhage had taken place. It was supposed that the disease was either epulis or exostosis, and a preliminary operation was practised to form a correct diagnosis. After making an incision into the skin, and forming an opening in the hard tumor by means of the bone forceps, a cavity was found having in it an incisor tooth. This was perfectly developed, and loosely connected to the maxilla connective tissue. At this stage of the operation it was obvious that the tumor of the maxilla was due to the concealed tooth. It was noticed also that one of the incisor teeth was wanting below the tumor, and it was readily understood that the tooth, instead of passing down in the usual way, had become involved between the hard palate and anterior surface of the maxilla.

It is difficult to understand the manner in which the tooth had become disconnected from the alveolus, and how it formed a connective tissue attachment with the maxilla.—*New York Med. & Surg. Journal.*

**OPERATION FOR PHYMOSIS BY THE ELASTIC LIGATURE.**—At a recent meeting of the Societe de Chirurgie in Paris, Dr. Hue, of Rouen, read a paper on a modification, introduced by himself, in the operation for phymosis. Instead of dividing the prepuce with a cutting instrument, he merely passes a needle through its dorsal surface close to the base of the gland, and ties the portion of skin in front of the puncture with an elastic ligature. The ligature cuts its way through in three or four days. The process is not painful, and the patients can, if necessary, continue their usual avocations. Dr. Hue has employed this process with success in eighty cases, which comprised both old men and children. He asserts that the result is very satisfactory from an æsthetic point of view; the gland remains half uncovered and retains its natural decoration unmarred by a scar.—*Le Progres Medical, No. 19.*

**VACCINE VIRUS VS. ARSENIC.**—Vaccination will not prove successful in a patient who, at the time, is under the influence of arsenic, says an English health officer, Dr. E. J. Syson, quoted by Dr. E. M. Hunt, *Medical Record*, March 9th. "The Antecedent Treatment of those Exposed to Zymotic Diseases." He suggests that other remedial agents, especially those classed as azymotics, will also cause the failure of a properly performed vaccination. This hint opens the door to a wide field of investigation.

**DIAGNOSIS OF ANEURISM.**—W. S. Oliver, M.D., Surgeon-Major, R. A., gives the following process for the diagnosis of *thoracic aneurism*: "Place the patient in the erect position, direct him to close his mouth and elevate his chin to the fullest extent, then grasp the cricoid cartilage between the finger and thumb, and use gentle upward pressure upon it, when, if dilatation or aneurism exist, the pulsation of the aorta [shall] be distinctly felt, transmitted through the trachea and to the hand. The act of examination [shall] increase laryngeal distress should this accompany the disease.—*New York Medical Record.*

**CASE OF PSORIASIS TREATED BY AN OINTMENT OF CHRYSOPHANIC ACID AND BY PHOSPHORUS.**—R. Steele reports the case of a workman, fifty-three years of age, who had suffered for eight years from a psoriasis of the elbows, forearms, and right hip, which had defied all treatment. He was ordered  $\frac{1}{30}$  of a grain of phosphorus internally three times a day, and unguents with a salve, consisting of eight parts of chrysophanic acid to thirty parts of lard. The improvement was rapid, and after two months and a half the eruption had entirely disappeared.—*Med. Times and Gazette.*

**QUALIFICATIONS OF A MEDICAL EXPERT.**—The *Medical Times and Gazette* gives the following qualifications of a good forensic medical expert. He should be a first-class chemist, a sound physician, a skillful surgeon, an accomplished obstetrician; and should join to these qualifications a fair acquaintance with the collateral sciences, a little knowledge of law, much common sense, and a power of readily expressing technical matter in popular phraseology; and, in the present state of our law courts, if he have the gift of incisive repartee, it will be an advantage.—*Mich. Med. News.*

**PYROGALLIC ACID IN THE TREATMENT OF PSORIASIS.**—Jarisch has been led to try the action of this substance in psoriasis on account of its near chemical relationship to chrysophanic acid. In thirteen cases he obtained results with a salve, one part to four, fully as favorable as with chrysophanic acid salve of twenty per cent. strength, and without any accompanying dermatitis.—*Ibid.*

**BELLADONNA IN INTESTINAL OBSTRUCTION.**—Dr. Norman Kerr read a paper at the annual meeting of the British Medical Association, in which reports were given of five severe cases of intestinal obstruction successfully treated by two-grain doses of belladonna, every one or two hours, until from twelve to sixteen grains had been taken.

According to an Arabian proverb the world is supported by four columns; the justice of the great; the prayer of the righteous; the bravery of the valiant, and the science of the physician.

# THE CANADA LANCET.

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## THE PAST YEAR.

We have again entered upon a new year, and standing upon its threshold, we look back to take a retrospective glance at the progress which has taken place in medical science during the past year. At a first glance we discover nothing of a very startling character to chronicle; but on a careful survey, we find that much steady progress has been made in all the departments of our professional calling, and we have reason to feel abundantly satisfied with the results of the year's labors. The science of medicine and all that relates to it, is every year becoming more firmly established, improvements and new discoveries are being constantly added, new remedies and appliances are being introduced from time to time, and a more thorough knowledge of the action of medicines on the human system is being rapidly acquired. The various annual meetings of the medical body politic, both in America and Europe, have been as usual well attended, and much good work has been done in the cause of suffering humanity by these gatherings of scientific men. State or Preventive Medicine, the highest form of medical science, has received a considerable share of attention both at home and abroad.

The International Congress of Hygiene met in Paris, in one of the halls of the Palais du Trocadéro, in August, and remained in session several days. It was a most successful meeting, when it is remembered that it was the second meeting of the kind ever held, the first having taken place two years ago, at Brussels. M. Bouchardat, Prof. of Hygiene of the Paris Faculty, is the honorary President; the acting President was M. Gubler. The latter, in his opening remarks, alluded to the

valuable conquests of modern hygiene in the prophylaxis of disease, and the social aspects of sanitary science.

In the matter of sanitary legislation in this Province, some considerable progress has been made. At the last session of the Ontario Legislature a committee was appointed to inquire into, and report upon the sanitary condition of the Province. Several medical men appeared before this committee to give the benefit of their knowledge on the subject; and a series of questions were also addressed to medical men in different parts of the country, asking for information on various subjects. The information thus obtained will, in all probability, be made the basis of legislation during the approaching session of the Legislature.

The Annual Meeting of the British Medical Association was held at Bath, in the month of August, under the Presidency of Dr. Falconer. A painful incident at the opening, was the reading of the address prepared by the late President, Dr. Wilkinson, who died a short time before. The report of the council showed a flourishing condition of the Association. Seven hundred and forty-nine members had been elected since last meeting, making a membership in all of 7,536, and an annual income of £11,000. The meeting was not so large as on some former occasions, but was none the less interesting. Some excitement and interest was created by the presence of Mrs. Garrett Anderson, in advocacy of her claim to the membership of the Association, but a resolution was passed, affirming "that no female shall be eligible for election as a member of the Association." Drs. Billroth, Esmarch, Charcot, Liebrich, Pasteur, Ludwig and Sayre were elected honorary members. Dr. O'Connor was elected President for the ensuing year, and Cork appointed as the next place of meeting.

*Apropos* of the subject of the admission of women, it may not be out of place to mention here that the Royal College of Physicians, London, has refused, by an overwhelming majority, to confer the license upon women.

The American Medical Association held its Annual Meeting at Buffalo, in June, and was very largely attended. The annual address was delivered by Dr. Richardson, of Louisiana, and was chiefly devoted to reform in medical education. Many excellent papers were read in the



various sections, all of which will appear in the Transactions. Dr. Theo Parvin, of Indiana, was chosen President, and Atlanta, Georgia, was designated as the place of next meeting, in May, 1879.

The annual meeting of the Canada Medical Association was held in Hamilton and was well attended. Dr. Workman, the venerable president, delivered the annual address, which was published in our columns. Some of the papers read were exceedingly interesting, and we regret very much that they have not yet been published. Both from a scientific and social point of view the meeting was a success. Dr. McDonald, of Hamilton, was elected President for the ensuing year, and the next annual meeting will be held in London on the first Wednesday in September, 1879.

In medicine and therapeutics much progress has been made. The question of blood-letting is still being revived from time to time. Wharton Jones, in the *London Lancet*, Nov. 2nd, gives his views regarding the subject. He thinks by the prevailing abstinence from venesection inflammation of important organs is often allowed to run a prolonged and disastrous course which might be prevented by the timely abstraction of blood in such quantities as could not be injurious to the patient.

The subject of transfusion has also been debated and experiments have been performed by Dr. Brown Sequard, of Paris, with different fluids. He tried normal blood, blood deprived of fibrin, and milk. In each case he found the result to be the same, but the quantity of milk used was greater than the other fluids. He considers it preferable to inject into the arteries rather than the veins, and to be done slowly. Dr. Thomas, of New York, has also tried the transfusion of milk, and is convinced that it acts as well as blood.

Atropine as a remedy for night sweats in phthisis has been brought into favorable notice. It has been tried in the Toronto Hospital with uniformly good results. The dose is about one-fortieth of a grain of the sulphate of atropine at bed-time. Chloral hydrate still continues to be used with great success in the treatment of delirium tremens, Dr. Farrar in the *Brit. Med. Journal* for January, 1878, speaks in the strongest terms of its beneficial effect after the failure of the opium treatment. The subcutaneous injection of ergotine is now almost universally considered a sovereign remedy for hemo-

ptysis, hematemesis, uterine hemorrhage, etc. Its *modus operandi* depends upon its action on the vaso-constrictors. Where there is much pain or irritable cough it is combined with morphine.

Dialyzed iron, which has been so favorably received by the profession, has lately been used by way of hypodermic injection. Prof. Da Costa, of Philadelphia, has tried it with marked success in several cases of anæmia and chlorosis. The iron was used in both the diluted and undiluted state, without any unpleasant effects. It was injected in from fifteen to thirty minim doses daily. The muriate of calcium has been highly extolled by Dr. Bell, (*London Lancet*) in the treatment of tuberculosis. He gives it the preference over all other remedies in the treatment of this affection. He has used it also successfully in scrofulous disease of the bones, tabes mesenterica, &c. The dose is 20 grains, more or less, after meals. Iodide of ethyl has been employed by Prof. Sée for the relief of the paroxysms of asthma. It is administered by inhalation, a few drops being placed on a handkerchief and applied to the nose.

Nitrite of amyl, so much vaunted of late as a remedy for sea-sickness, has been used to cut short the cold and hot stages of ague, and thus facilitate the treatment. Some experiments were performed in the Greenwich Hospital by Dr. Ralfe with such apparently satisfactory results as leads us to hope that with a more extended trial its efficacy may be established. The use of carbolic acid in small pox has been frequently alluded to in the different medical journals during the year. It has been given internally in small doses and also used as a lotion in the proportion of 1 in 20, applied to the face. It seems not only to act as a disinfectant, but also to prevent the pustules becoming confluent and to moderate the occurrence of pitting.

Nux vomica has been lately used with success in Italy in the treatment of diabetes. Two cases are reported as having been cured by it, in the *Gazzetta Medica di Roma*, under the care of Dr. Zarzana. The process of tapping for dropsy of the limbs, first introduced by Dr. Southey, has been put into practice with favourable results. It consists in the introduction of minute canulæ made of gold which gradually drain away the serum lying among the tissues. To the extremity of the canulæ are attached slips of rubber tubing about two feet in length to convey the fluid into a vessel for

its reception. Capillary tubes have also been used for paracentesis abdominis and thoracis by Dr. Goodhart, of Guy's Hospital.

The subject of metalloscopy and metallotherapy has engaged the attention of scientific physicians, in the treatment of hystero-epilepsy, in which anaesthesia or hemianaesthesia are frequent symptoms. It consists in the application of certain metals varying according to the idiosyncrasy of the patient, the process of ascertaining which is called metalloscopy. Bits of metal are applied to some part of the surface on the anaesthetic side. A piece of metal is also introduced into the mouth or applied over the mastoid process. If the proper metal has been hit upon, the sensibility is restored wholly or in part, if not, another and another kind of metal is tried until the proper one is ascertained which is then kept applied, or some salt of the metal administered. The metal is supposed to act by creating a current of electricity which effects the vaso-motor nerves, so that an increased blood-supply is sent to the parts.

The direct method of artificial respiration introduced and practised by Dr. Benjamin Howard has been on its trial during the past year. The claims of superiority over Marshall Hall's or Sylvester's method, are its simplicity and the readiness with which it can be employed by water police and others who may have once seen it put in practice.

A fearful epidemic of yellow fever occurred in the Southern States of America during the summer and autumn, resulting in great loss of life. The epidemic broke out in July and continued up to the month of November. It commenced in New Orleans and spread with great rapidity to Memphis, Vicksburg, Mobile, Grenada, Key West and other places. In New Orleans alone, up to Oct. 12th, there were 11,206 cases and 3,400 deaths, showing a mortality of more than 20 per cent. This awful list of deaths has rarely ever been equaled, and scarcely surpassed in the annals of famine and war. Many medical men, ever faithful in the discharge of their noble calling and unwilling to desert the unfortunate victims, although the people were fleeing in all directions, fell like heroes at their posts. An outbreak of contagious pneumonia in certain parts of England during the past year has renewed the discussion on this important subject. It is supposed to be a *pythogenic* pneumonia, and is infective. It has some resemblance to the pleuro-pneumonia of cattle.

In the domain of surgery much has been accomplished, and several new and important procedures have been introduced into practice. A new departure in the operation of lithotrity has been brought forward by Dr. Bigelow, of Boston. Instead of short and repeated operations, he recommends longer time and an attempt to break up the stone, and wash it all away by a contrivance for the purpose, if possible at a single operation. Thus far, the success of the prolonged operation has been very good. An improvement has also been introduced in the operation for removal of the tongue in cancer, by Dr. Shrady, of New York. It consists, first, in ligaturing the lingual arteries at the posterior border of the hyo-glossus muscle, after which the removal of the tongue, it is claimed, is almost perfectly bloodless.

The results obtained with the catgut ligature have been conflicting. Some surgeons have found it uniformly effectual and safe, others have met with only disappointment and disaster. It is liable to soften and the knot to unloose, and thus permit of secondary hemorrhage. The use of the elastic ligature for the division of the prepuce in the treatment of phimosis has been tested in several cases, and with very good results. It is applicable in a number of cases where circumcision or the use of the knife is inadmissible.

The operation for the removal of the lower end of the rectum for the relief of cancer, has been several times performed during the year, and quite recently by Dr. Fenwick of Montreal. The success which has attended the operation so far, is such as to encourage a repetition in certain cases where there is reason to believe that the disease can be surrounded and completely removed by the knife. The control of the bowel afterwards is wonderfully good considering the nature of the operation, and in those cases in which the sphincter action is impaired or lost, the patient still retains the sensation of the presence of feces, and can make preparations for cleanliness.

Another case of removal of the spleen, has been put upon record by Dr. Browne of the Bromwich Hospital. The tumor which proved to be a simple hypertrophy, weighed 18½ pounds. There was no hemorrhage. Four large arteries required the ligature. The patient, previously very much reduced—in an almost hopeless condition—died five hours after the operation. The treatment of

varicose and other chronic ulcers of the leg, by the elastic bandage has been successful in the hands of Dr. Martin of Boston, and others who have tried it. The bandage is of pure rubber 10 feet long and three inches wide, and is applied as an ordinary bandage to the leg. It is removed at night, and the ulcer dressed with suitable dressing.

The treatment of aneurism of the aorta by the the subcutaneous injection of ergotine conjointly with galvano-puncture has been tried, with very favorable results, by Dr. Carter of Queen's Hospital, Birmingham. Two needles connected with a Stohrer battery were used, first commencing with two, and afterwards increasing to twelve cells immersed half way in the acid. The operation was twice repeated at the end of a week or ten days, in each interval. The needles were allowed to remain in the sac from 35 to 50 minutes at each sitting. The result exceeded the most sanguine expectations, the patient being very much relieved, though not completely cured. Excision of the bones of the foot for the cure of talipes in the adult, has been successfully resorted to by Dr. Bryant of Guy's Hospital, and others in Europe and America during the past year. Two cases of gastrotomy have been reported. One successful case by Prof. Trendelenburg of Rostock, in a boy eight years of age, and an unsuccessful one by Dr. Bradley of Manchester, in a boy 14 years of age. Several successful cases of paracentesis of the pericardium have been reported in Europe and America, so that the operation has come to be regarded as a perfectly legitimate and favorable one in certain cases. A small aspirator needle is that generally used, and no difficulty has been experienced in the operation. The needle is introduced in the fifth intercostal space, nearly in the position of the normal apex-beat. Aspiration of the knee joint has been several times performed,—in one case in the Toronto general Hospital under the writer's care—with the most beneficial results. If performed so as entirely to exclude the air, it is perfectly safe. Prof. Langenbeck successfully extirpated the left kidney of a woman aged thirty two years. This operation has also been successfully performed by Dr. Martin of Berlin.

The operation of laparotomy has been resorted to by many surgeons on the Continent, both for the relief of disease and for the purpose of clearing up the diagnosis in obscure cases. The ab-

dominal cavity is now opened with as little hesitation as that with which the ordinary surgeon would open an abscess. Gussenbauer of Luttich performed the operation of resection for intestinal obstruction, removing four inches of the lower part of the descending colon and a tumor which was the cause of the obstruction. The patient died from septic poisoning, caused by the escape of the contents of the bowel into the abdominal cavity.

The new antiseptic thymol has received marked attention among British and Continental surgeons during the past year, and bids fair to supplant carbolic acid as the most available surgical antiseptic we possess. It is the essential principle of the oil of thyme, and is a more powerful antiseptic than carbolic acid. It is not so irritating, and in antiseptic surgery its advantages over carbolic acid are most marked. Spencer Wells has used it in a series of ovariectomy cases with the most satisfactory results. The strength used is one gramme (15 grs.) of thymol, to one thousand grammes of warm water. It does not in the slightest degree interfere with the healing process.

In obstetrics and obstetrical surgery we note a few novel features. In the treatment of vomiting of pregnancy, much benefit has been derived in many instances from the topical use of caustic applications to the cervix uteri. In some cases, a single application of the caustic was sufficient to allay the most distressing vomiting. Laparotomy has been resorted to in several cases in the United States, by Prof. Thomas and Dr. J. C. Skene, and once by Dr. Hime of Sheffield, England, as a substitute for Cæsarian section. The operation is performed by making an incision in the abdomen from the anterior superior spine of the ilium to the spine of the pubis. The peritoneum is drawn upwards, a probe is introduced into the vagina which is pushed upwards into the bottom of the wound and divided. The os is reached, the hand introduced and delivery effected by turning. The advantages are, the peritoneum and uterus are not wounded, there is very little loss of blood, and the shock is less than in Cæsarian section. The use of hot water in surgical cases and in uterine hemorrhages, has been still further put upon its trial. In some severe cases of uterine hemorrhage, it was found to produce immediate and energetic contraction of the uterus. The temperature of the water should be about 120° F.

The following case is novel, and if the cure should be permanent, will have an important bearing on operative gynaecology in relation to disease of the uterus. We do not know of a similar case on record. It is a case of enucleation of the uterus per vaginam for epithelial cancer, reported in the *Pacific Medical Journal* for Dec. '78. The operation which was successful in its results so far, was performed by Prof. Lane of the Medical College of the Pacific. The uterus was well drawn down, and the process of enucleation commenced by severing with a blunt dissector and pair of scissors the tissues immediately surrounding it, avoiding the rectum and bladder, until the fundus was reached, when the Fallopian tubes were divided and the uterus removed. Several ligatures were applied to the bleeding vessels. The patient made a rapid and satisfactory recovery.

In chemistry we have to record the brilliant discovery of Mr. Piquet of the liquefaction of oxygen. Under a pressure of 300 atmospheres and the influence of intense cold, oxygen becomes a liquid. Lately the important discovery has been made by Norman Lockyer and communicated to the Academy of Sciences in Paris, that many of the so-called elementary bodies are in reality compounds, and that some of the metals are interchangeable at very high temperatures.

The profession of the Province of Quebec was much exercised during the early part of the year over a case of alleged forgery, charged against Drs. G. E. Fenwick and E. D. Worthington, the former the late registrar and the latter one of the governors of the College of Physicians and Surgeons of Quebec, in issuing and ante-dating a certificate of license to Dr. Mines of Massawippi. The license was purposely ante-dated in order to secure Dr. Mines' vote at the then approaching election of the Board of Governors. It was not denied that a grave irregularity was committed, but nothing of a more serious character was shown to have existed.

A revision of the British Medical Council has been advocated by the medical journals of Great Britain. At present it consists of twenty-three members—nine from the medical and surgical corporations, eight from the universities, and six appointed by the crown. It will thus be seen that the medical and surgical corporations have a preponderance in the council, and this is not considered desirable. The general profession, as such, may be

said not to have any representation in the council. The whole system of representation is so unjust and absurd, that a revision should no longer be delayed. In Canada an improvement in a similar direction in reference to the Ontario Medical Council, must sooner or later be considered. We have been urging, during the past year, an increase in the territorial representation, but so far the profession at large has taken very little interest in the matter.

The question of doctor's fees, always an interesting one, has been brought prominently before the public in Great Britain through the discussion in the *London Times* and other papers. It arose out of the fact that some physicians had the good sense to demand *two* guineas, instead of one as formerly, for first consultations. There can be no doubt that the profession, both here and in Great Britain are inadequately paid for their services, and we may be quite sure that the public will not come to the rescue and offer two guineas or two dollars, as the case may be, where only one is demanded. The profession has the remedy in its own hands; let physicians demand a proper remuneration and they will receive it. They must fix their own value, and stand by it. It is useless to urge that it cannot be done; it *can*, and *must* be done sooner or later.

The following new medical books were issued from the press during the year. A few of them are new editions of works previously published:—*Functions of the Brain* by Ferrier; *Gonorrhoea and Syphilis* by Durkee; *Action of Medicines* by Ott; *How to use the Ophthalmoscope* by Browne; *Ziemssen Volumes VIII, XIII, XIV, XVII*; *Principles and Practice of Surgery* by Erichsen; *Practical Chemistry* by Clowes; *Pathological Reports, Montreal General Hospital* by Osler; *Pathological Anatomy* by Orth; *Text-book of Physiology* by M. Foster; *Lectures on Clinical Medicine* by McCall Anderson; *Guide to Therapeutics* by Farquharson; *Insanity in Ancient and Modern Life* by Tuke; *Fownes' Chemistry*; *Atlas of Skin Diseases* by Duhring; *Antagonism of Therapeutic agents* by Fothergill; *Science and Practice of Midwifery* by Playfair; *Anatomy Descriptive and Surgical* by Gray; *Principles and Practice of Surgery* by Gant; *Principles and Practice of Surgery* by Ashhurst; *Principles and Practice of Surgery, Vol. I.* by Agnew.

In referring to our obituary record we find a

long list of worthies departed. Among those of Europe may be mentioned Claude Bernard, Rokitsansky, Blundell, Hilton, Stokes, Churchill, Wunderlich, Griffiths, Basham, Bartels, Linhart, Weber, &c. In the United States we may specially mention Atlee, Peaslee, Clarke (Boston), and F. G. Smith, (Philadelphia); besides a large number of brave men in the yellow fever epidemic. Among our own brethren in Canada whose loss we deplore are Drs. Hodder, B. Workman, Bridgman and Henry (Toronto); Bullen (Hamilton); R. S. McDonnell, Peltier, Bell, Park, Duhamel and Malhiot (Montreal); Rankin (Picton); Lister (Belleville); Adams (Tavistock); Wright (Oakville); Patterson, (Streetsville); Waddell (Truro, N.S.); Clawson (Salisbury, N.S.); Lawson (Bedeque, P.E.I.); Davignon (Longueuil, Que.); Haney (Fenwick); Langstaff (King); Matheson (Embrow); etc. etc.

The past summer in Canada has been remarkable for its extremes of heat during the summer months, especially July and August; and excess of moisture during the latter part of summer and beginning of autumn, yet the health of the community has been on the whole very good. There have been a few outbreaks of diphtheria and scarlet fever in different parts, and especially in the Maritime Provinces, but no serious epidemics, and no sad disasters by sea or land.

We conclude by wishing all our readers a happy New Year, and many pleasant returns of the season.

#### THE LATE DR. WADDELL.

The late Dr. Waddell, whose death was noticed in our last issue, was for more than a quarter of a century Medical Superintendent of the Lunatic Asylum, New Brunswick. He was born in Truro, N. S., in 1810, and was therefore in his 68th year at the time of his death. He commenced his medical studies in 1833, and received the diploma of the Royal College of Surgeons, London, in 1839. He then went to Paris where he remained two years in attendance upon the hospitals and medical lectures. On his return home he commenced practice in Truro. In 1849 he was appointed Medical Superintendent of the New Brunswick Lunatic Asylum, the duties of which he continued to discharge with untiring energy and fidelity until the spring of

1876—a period of 27 years. The constant work and worry in the management of an establishment of this kind soon make sad havoc of the strongest and most robust, and Dr. Waddell was no exception to the rule. Finding his health giving way he retired from the asylum, in order to recuperate; but instead of that repose for which retirement was sought, it was found that the change from an active to a passive life was more than his shattered constitution could withstand. He was a man possessed of great kindness of heart, of a benevolent disposition, and was eminently qualified for the discharge of those duties, which formed the great business of his life. He was gentle, yet possessed of sufficient firmness, and never failed to command respect and obedience. In his manner he was affable and gentlemanly, and many visitors to the asylum will remember with pleasure the kind treatment they received from him. No man was better known in the Maritime Provinces; and there is no one whose memory will be held in more grateful remembrance than that of Dr. Waddell. His wife, who survived him only a few months, died very suddenly on the 3rd ult.; so long and happily united in life, they were not long separated in death.

TRAINING SCHOOL FOR NURSES.—A training school for nurses has been established in connection with the Toronto General Hospital. Dr. O'Rielly, the Medical Superintendent of the Hospital, visited several institutions of the kind in the United States, during the past summer, and his report has been made the basis of the present arrangement. The duration of the course is two years, and is very complete. Instruction will be given by attending and resident physicians, at the bedside of the patients, and in various ways; and also by the matron and head nurse. During the first year the candidates will be supplied with board and lodging, and will be paid \$6 per month in return for their services. During the second year they will receive \$9 per month, in addition to board and lodging. Candidates must be over twenty and under thirty-five years of age. Applications for admission should be made as early as possible, to the Medical Superintendent, or the Matron of the Hospital.

URANINE.—We are indebted to the editor of the *Scientific American* for a sample of this new coloring matter, derived from coal tar. It is the most

highly fluorescent body known to science, and is a powerful coloring agent, a single grain imparting color to 500 gallons of water. It is a reddish-colored powder, soluble in water, and produces a soft green color, which viewed by transmitted light becomes changed to a bright golden or amber color. A few atoms sprinkled in a tumbler of water produces a most beautiful appearance. Each atom as it sinks in the water appears as a bright green rootlet, and the tumbler soon appears as if crowded full of beautiful plants. These gradually enlarge and fuse, producing a uniform green colored fluid. The editors of the *Scientific American* are sending samples to all their readers.

DETECTION OF STONE IN THE BLADDER.—Dr. Andrews, of Chicago (*Medical and Surgical Reporter*, Philadelphia, Oct. 12), has devised an apparatus for detecting the presence of very small calculi in the bladder. It consists of a thin metallic tube, an ordinary sound would do as well, to the extremity of which is attached a small rubber tube two feet in length, and terminating in an ear piece. The ear piece is introduced into the meatus, and the slightest jar of the instrument in contact with the calculus is distinctly heard.

SPECIAL NOTICE.—We desire to draw the attention of our readers to the following advantages to be obtained by subscribers to the *Canada Lancet*, who pay their subscriptions in advance. We will supply the *Canada Lancet* and the following journals at the *rate* mentioned after each;—Braithwaite's *Retrospect*, as usual, for \$5.00, *London Lancet*, English edition (weekly), the leading medical journal of Great Britain, for \$10.00—the bare price of the *London Lancet* to ordinary subscribers in Canada: *Medical Times and Gazette*, London, \$10.00; *Obstetrical Gazette* (monthly), Cincinnati, \$5.00; *Michigan Medical News*, \$3.75; *Scientific American*, \$5.75; *Popular Science Monthly*, \$6.75; *Canadian Illustrated News*, \$6.00; any of Harper's, \$6.25; any visiting list, \$4.00; *Butler's Physician's Record Book*, full size, \$7.00, etc., etc. See continuation Rates.

DISTINGUISHED VISITORS.—Dr. Andrew Clark, physician to the London Hospital, who accompanied H. R. H. the Princess Louise and the Marquis of Lorne, delivered a lecture on phthisis before a large body of physicians and medical stu-

dents of Montreal. He was the same evening entertained by the profession at a dinner at the Windsor Hotel.

He returned by way of New York, where he was met by Dr. Callender, the distinguished surgeon of St. Bartholomew's Hospital, London. Dr. Clark again delivered his lecture here on the nature and treatment of phthisis, at the Bellevue Hospital Medical College. Dr. Clark is clinical lecturer on diseases of the lungs in the London Hospital, author of the "Anatomy of the Lungs," "Evidences of Arrest of Phthisis," etc., etc.

Mr. Callender visits Philadelphia before his return.

BRANT COUNTY MEDICAL SOCIETY.—The Brant County Medical Association convened in Brantford, on the 3rd of December, 1878.

The members present were:—Drs. Burt (president), Marquis (vice-president), Harris (sec.-treas.), Griffin, Kitchen, Sinclair, Healy, and Tegar.

Dr. Marquis read a very comprehensive and interesting paper on Diphtheria, which elicited considerable discussion by all present.

After some miscellaneous business had been disposed of, the Society adjourned, to meet again at the Kirby House on the first Tuesday in March.

DISTURBANCES AMONG THE MEDICAL STUDENTS IN ST. PETERSBURG.—The introduction of obnoxious regulations in reference to their studies has caused an uprising of the students of the St. Petersburg Academy of Medicine and Surgery. Several hundred of them went in a body to the Czar-wich's palace to present a petition, but the Czar was not at home. They were ordered to disperse by the Prefect of Police. The day following 140 of them were arrested, and some of them ill-treated. The Prefect of Police promised to bring them an answer to their petition, but instead of that, the colleges were surrounded by 2,000 gendarmes and cossacks. The lecture halls have all been closed.

TROMMER'S EXTRACT OF MALT.—We have lately been using pretty extensively the above extract with very excellent results, as a substitute for cod-liver oil, where the latter cannot be tolerated. It is also very serviceable in certain forms of dyspepsia. It agrees with the most fastidious stomach, and is readily taken by children.

**HEALTH OF NEW YORK.**—Through the kindness of Dr. Nagle, medical health officer of New York city, we have been favored with the report of the health department for the year ending December 31st, 1877. There were, during the year, 26,203 deaths from all causes, which makes an annual death rate of 24.50 per 1,000. Of these, 8,042 were from zymotic diseases; 5,800 from constitutional diseases; 9,720 from local diseases; 1,615 from developmental diseases; and 1,026 by violence.

There were only 14 deaths from small-pox, but scarlatina and diphtheria each show a mortality of upwards of 950. There were 3,557 deaths from diarrhoeal diseases; 4,044 from phthisis; 2,148 from pneumonia; 2,378 from diseases of the brain and nervous system, and 1,139 from diseases of the kidney. Infant mortality, as usual, brings up the rear with a frightful holocaust, the number under five years being no less than 12,307.

**SULPHUR IN SCARLET FEVER AND DIPHThERIA.**—Since Dr. Pigeon recommended the treatment of scarlatina by sulphur, in the *London Lancet*, others have been induced to try it, with marvelous success. The plan adopted, is to thoroughly anoint the patient twice daily with sulphur ointment made with oil. Burn sufficient sulphur, on coals on a shovel to fill the room with the fumes, which are of course inhaled by the patient. With this mode of treatment the most severe cases do well, and none are over eight days in making a complete recovery. In diphtheria the sulphur treatment excels every other. A few grains of precipitated sulphur are blown upon the fauces every half hour through a glass tube, and the throat is gargled frequently with sulphurous acid and water 1 part in 16.

**PREVENTIVE TREATMENT OF HARE-LIP AND CLEFT-PALATE.**—In an article in the *Practitioner*, Dec. '78, the writer, Dr. Tuckey, recommends the use of the salts as found in bone as a preventive of these deformities. He would prefer to administer bone reduced to powder, and recommends its administration during the first three months of uterogestation. Cases are given in which this treatment has been successful, even where all the previous children were deformed.

**CANADIANS IN ENGLAND.**—The following gentlemen passed the examination of the Royal College of Surgeons, Eng., in November last:—

Chas. Sheard, M.B., Luke Teskey, M.B., and Wm. E. Winskill, M.B., all of Trinity College; the two former passed the primary, and the latter the final examination. Dr. Teskey has returned to Toronto for the winter to attend to his duties in the Dental College here, but will revisit England again in the spring, to complete his course.

**CURARE IN EPILEPSY.**—Curare has been highly extolled of late, for the treatment of this hitherto intractable disease. It is claimed that it will cure where all other remedies have failed, and that even the very worst cases are benefited by its use. It is administered hypodermically in small quantities prepared as follows. Seven and a half grains of curare are dissolved in one and one fourth drachms of water, to which a drop or two of hydrochloric is added to favor solution. Of this solution 8 drops are injected under the skin every 5 or 6 days.

**DEATH.**—The *Kingston News* announces the death of Mr. R. A. Lavell, from throat disease, son of Dr. Lavell, of Kingston, in his 17th year. He was a young man of great promise, having carried off the Watkin's Scholarship in Queen's University. A resolution expressive of sympathy with the family in their deep affliction, was presented by his classmates.

**SPONTANEOUS DISLOCATIONS.**—A celebrated contortionist gave an exhibition of his wonderful powers a short time ago at the Toronto Hospital. He possesses the rare power of being able to dislocate at will all his joints except the elbow, even the phalangeal. In his case there was no doubt left on the minds of those who examined him, that the dislocations were complete in every case.

**APPOINTMENTS.**—Dr. Forrest has been appointed head master of the Bradford High School. Dr. Atkinson, of Prescott, has been appointed head master of the High School, Brockville. Dr. R. Zimmerman has been appointed one of the pathologists to the Toronto General Hospital.

**DIPHThERIA AND SCARLET FEVER.**—Diphtheria is very prevalent at present in Bridgewater, N.S. A very fatal type of this disease is also raging at Stanbridge, Que., and scarlet fever is prevalent in Lennoxville, Que.

DR. YATES, of Kingston, has returned from a trip to Bermuda, very much improved in health.

LITERARY NOTES.—*The Popular Science* monthly will in future be enlarged, the *supplement* being consolidated with it. This places it ahead of all other monthly scientific journals of the kind in America—supplied with the CANADA LANCET for \$6.25 per annum. The *Obstetric Gazette* published in Cincinnati is a new aspirant for professional favor. Its veteran editor, Dr. E. B. Stevens will make it a success. It improves with each issue. Supplied with the CANADA LANCET for \$5 per annum.

The following are in *press* and will shortly be issued by Messrs. H. C. Lea. "The National Dispensary," by Profs. Stille, and J. M. Maisch; The "Principles of Surgery" by Prof. Ashhurst, Jr.; The "Principles and Practice of Gynæcology" by Dr. Emmett; The "Practice of Surgery," by Prof. Bryant, London; "A System of Human Anatomy" by Prof. Allen, etc.

Messrs. Lindsay & Blakiston, of Philadelphia have the following works in press to be issued shortly; McKenzie on the "Throat and Nose" by Dr. Brandies; "Student's Guide to Diseases of the Eye" by Dr. Power; "Students Guide to Chemistry" by Dr. Bernays; "Diseases of the Rectum," by Dr. Allingham; "Diseases Peculiar to Women" by Dr. Atthill; and a "Text Book of Physiology," second revised edition with illustrations by J. Fulton, M.D., M.R.C.S., etc., Prof. of Physiology in Trinity Medical School, Toronto. A Canadian edition of the latter will also be issued by Messrs. Willing & Williamson, simultaneously in Toronto. It will be an octavo volume of between four and five hundred pages, containing numerous illustrations.

The *Index Medicus* is the title of a monthly classified record of the current medical literature of the world, to be issued shortly under the supervision of Dr. J. S. Billings of the U. S. Army, Washington. It will record the titles of all new publications in medicine, surgery and the collateral branches and original articles in medical journals etc., received during the preceding month. The first number will be issued in January '79 and the subscription price will be \$3 per annum.

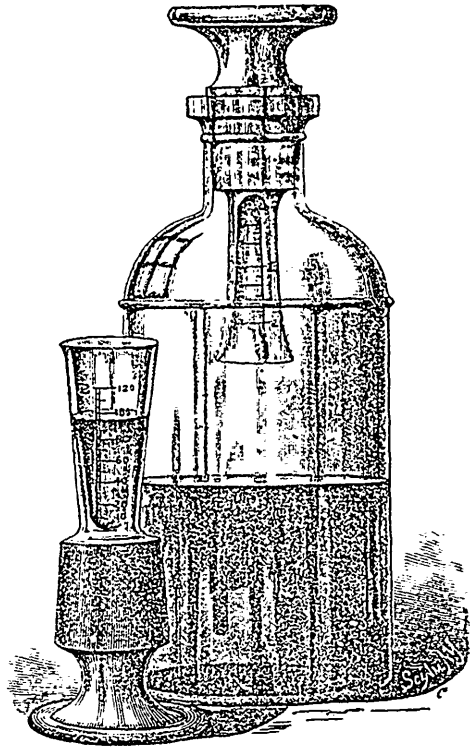
The first number of the *National Medical Review*, a new medical monthly published in Washington, U. S., has come to hand. It fills a *want* long felt in that district.

We are glad to learn that Dr. Russell of Quebec, who has been dangerously ill for the past two months, has entirely recovered.

## NOVELTIES.

## A COMBINED STOPPER AND GRADUATE.

THIS new device of Mr. W. L. Keller, of Baltimore, Md., is so simple, handy, and economical that it is somewhat surprising that it has not sooner been suggested. The completeness of the adjoining illustration renders it unnecessary to give any detailed description, and we will say only that for expensive essential oils or substances which are with difficulty removed from glass, for the bottles in a prescription case and for other purposes which



will readily occur to every pharmacist, the usefulness of these stopper-graduates must at once be apparent. The labour of cleansing graduates is by the use of these at once reduced to a minimum, and the saving of time and the certainty of finding the measure just where it is wanted are no small items for consideration.—*New Remedies.*

ANOTHER FORTUNATE MEDICO.—Dr. McLaughlin of Enniskillen, has received the nomination of the convention of West Durham for the Local Parliament. If he accepts he is said to be certain of election.



## Books and Pamphlets.

**THE CELL DOCTRINE. ITS HISTORY AND PRESENT State,** by James Tyson, M.D., University of Pennsylvania. Second revised edition with illustrations. Philadelphia. Lindsay & Blakiston. Toronto: Willing & Williamson.

This little manual contains a very concise and interesting abstract of all that is known in regard to the cell doctrine. The author defines the cell to be the smallest mass of living matter possessing the essential life properties of reproduction, nutrition, growth, and development. The views of Klein and others are adopted by him in regard to the structure of cells, viz: that both the nucleus and protoplasm of the outer portion contain a fibrillar network, but that the ground substance is structureless. In reference to pathological formations he says what has long been known to practical physiologists, that there is no special form of cell known by its shape to belong to certain pathological formations as "cancer cell," "fibroid cell," "sarcoma," etc. The "cancer cell," which was so long an object of wonder and fear, and eagerly sought for as such, is no longer acknowledged to be anything peculiar as to form. At the same time, when cells from a suspected growth are observed to be very large, to contain numerous nuclei or centres of bioplasm, and to exhibit great variety in shape, we have evidences of that rapidity of growth which is more or less characteristic of malignant formations.

**APPLETON'S JOURNAL FOR 1879.**

This magazine is devoted entirely to literature of a high order of excellence, by writers of acknowledged standing. Fiction still occupies a place in this Journal, but space is given to articles bearing upon literary and art topics, to discussions of social and political progress, to papers addressed distinctly to the intellectual tastes of the public, or devoted to subjects in which the public welfare or public culture is concerned.

The *Canadian Illustrated News*, a weekly illustrated newspaper, published in Montreal every Saturday. It is really a credit to Canadian enterprise. It is printed on good paper and contains most beautiful illustrations of every day life and scenery. Send for the Xmas number. Subscription \$4 per annum; to subscribers of the LANCET \$3 in advance.

**REST AND PAIN,** by John Hilton, F.R.C.S. New York: Wm. Wood & Co. Toronto: Willing & Williamson.

This is the first volume of Wood's Library of standard medical authors. It will be of incalculable advantage to medical science if our leading members of the profession would, instead of wandering off to speculations and transcendental theory, be content to record the result of their observations and reflections, during an active practice of many years. The principal object the late Mr. Hilton had in view in delivering these lectures, was to show how largely we are indebted to Nature, in her recuperative powers, for success in practice, particularly when the medical attendant comes to her aid, by enforcing on his patient the therapeutic value of mechanical and physiological rest, and is sensibly alive to the diagnostic value of pain. To do anything like justice to a review of this admirable work, passages should be cited in which the author points out the various means adopted by nature to secure the needful rest, but as our limits will not permit of a lengthened notice, we must content ourselves with recommending it to our readers as an absolutely necessary addition to their library, being well assured that they will find it not only an acceptable, but an eminently useful one.

**PHYSICIAN'S VISITING LIST FOR 1879,** by W. Oldright, M.D., Toronto: Wm. Warwick & Co. Price \$1.25.

The above visiting list is ruled for a month instead of a week, as is the case with most lists. This is by some considered an advantage, as it saves the changing of names or posting oftener than once a month.

**CORONERS:**—A. Decow, M.D., of Highgate, to be an Associate Coroner for the County of Kent; C. T. Campbell, M.D., of London to be an Associate Coroner for the County of Middlesex.

## Marriages & Deaths.

On the 4th of December, at Seaforth, Dr. J. S. Lynch, of Winnipeg, Manitoba, to Matilda, step-daughter of Dr. T. T. Coleman.

On the 28th of Nov., Lewis Langstaff, M.D. of King, aged 56 years.

At Hot Springs, Arkansas, on the 16th December, Dr. Neil Matheson, of Embr.

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