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# THE CANADA LANCET,

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MEDICAL AND SURGICAL SCIENCE.

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## Original Communications.

### FORCIBLE FLEXION IN FIBROUS ADHESIONS.

BY JOHN GARDNER, M.D., HESPELER, ONT.

Thinking it of interest, I will take the liberty of giving you a history of my own case with treatment employed. About fourteen years ago I was employed as a surveyor on the shores of Lake Superior. In my work I received a severe wound close to the inner margin of the patella of the right knee entering the joint, from which the synovial fluid escaped in considerable quantity. I was so situated that no medical aid could be procured, and merely bandaged it up and made arrangements to start for home. Being many miles distant, it was very painful during my journey, and it was evident that synovitis had set in. On arriving home, a medical man was sent for and diagnosed synovitis. Hot poultices were applied week after week, the joint suppurating profusely all the time; the leg was kept perfectly straight and no attempt at motion used whatever. At my request the poultices were discontinued and other dressing employed. The wound gradually healed up, so that at the end of nine months I was able to leave my bed, but not the house for several weeks after.

Since then I have myself studied medicine, and have been employed in the practice of my profession in California and other parts; but my leg has always been a great trouble to me—being perfectly straight and stiff, I walked with a limp. If my toe came in contact with anything, it produced great pain in the knee, and while riding in my buggy it was very inconvenient, not being able to sit square on the seat or on a chair, owing to the amount of pressure that was produced on the back part of the thigh.

I consulted many eminent surgeons in the United States, some of whom thought by operating, some motion could be obtained in the joint, others did not favour any interference; but being myself desirous of gaining the use of my limb, returned home with that intent. After coming here, I consulted Dr. Sylvester of Galt, and he considered an operation advisable. May 28th was fixed upon as the day, and the operation was proceeded with as follows: I was placed on a table and brought thoroughly under the influence of chloroform by Dr. Philips, I was then drawn well down over the end of the table and a block of wood was placed under the lower end of the femur to act as a fulcrum, the thigh was well fixed by assistants, and flexion was attempted. At first it was thought impossible to break down the adhesions that had formed. Dr. Sylvester informs me that the amount of force required far exceeded his expectations, but by continued pressure the adhesions gradually gave way with audible cracking sounds, and the leg was brought down to nearly right angles. It was worked up and down several times with ease. I was then placed in bed and the knee encased in rubber tubing, and water kept constantly running through, which kept the leg cool and prevented any inflammation. Morphia was administered, and very little pain followed, though the parts were somewhat tender. The leg was at first kept quiet and straight. At the end of eight days I was again chloroformed and the leg flexed; but little force was required to bring it down. This time my leg was kept bent at nearly right angles, and tubing used as before. After the bandages were removed, the leg gradually straightened out. I now procured one of Tiemann's anchylosis splints with a screw behind the knee, and used this twice a day flexing the leg to nearly a right angle. It is now three months since the operation, and I am able to walk by the aid of a cane, and can flex my leg by muscular action to an angle of 45 degrees. I might here add that the extensor muscles of the thigh were very much atrophied, but are gaining in size and strength. I am confident that in the course of time, I will walk as well as ever.

I take this opportunity of thanking those who assisted in the operation, and especially Dr. Sylvester, whose attention has been untiring.

## CASE OF EMPYEMA.—TREATMENT BY CARBOLATED IODINE LOTION.

BY J. FULTON, M.D., M.R.C.S., ENG., L.R.C.P., LOND.

In the number of this Journal for October, 1875, is reported a case of Empyema occurring in a man aged 70 years, under my care, in which recovery took place; and I now have to report a similar case occurring to a patient 23 years of age, which resulted in death. The fatal result, however, was not immediately due to empyema, but rather to the occurrence of an obstinate diarrhœa, with which the case was complicated, and which resisted all efforts at treatment until the patient was completely worn out by the long continued and exhaustive discharges from the bowels. The following is a history of the case:—

Wm. H., æt 23; born of healthy parents; a lather by trade; mother, brothers and sisters all llving and healthy; father died of pneumonia; says he had gonorrhœa and chancroid; general health good up to the time of attack; no visible signs of constitutional syphilis; slightly addicted to intemperance, tall, muscular, weight about 160 pounds On or about the 24th of last May he caught a severe cold by lying on the damp grass, and was soon after seized with pleuritic pain in the right side. When I first saw him he was suffering acute pain in the right side, with difficulty of breathing, pulse 120, skin hot and dry, and symptoms indicating acute pleuritis of the right side. I put him under appropriate treatment, and in a short time he was relieved; he breathed more easily, and in a few days began to sit up. There was evidence of effusion in the pleural cavity on physical examination, but there was very little difficulty in breathing, and the patient was able to assume the horizontal position. There was no bulging of the intercostal spaces, nor increase in the measurement of the right side of the chest. The symptoms were not urgent, and I fully believed the absorbents would in a short time remove the fluid. With that end in view I placed him upon iodide of potassium combined with diuretics, and gave him occasional doses of sulphate of magnesia, compound jalap powder, &c. Blisters were also applied to the side of the chest, and repeated at intervals. Under this treatment he seemed to improve for the first eight or ten days, after which the fluid increased, and at the end of a week or ten days the chest was completely filled. The patient was now obliged to remain in the upright position. There was only slight bulging of the intercostal spaces, and no appreciable increase in measurement of this side of the chest. The pulse was, and had been for some time from 96 to 100. At this juncture I proposed tapping the chest in order to get rid of the fluid, to which the patient consented, and desired to have Dr. Russell of this city called to consultation. We accordingly met on the 18th of June, and after a careful examination, he coincided with me in the propriety of paracentesis, which was done by means of an aspirator, and twenty ounces of lemon colored serum was removed. This gave immediate relief, and the patient improved for a few days, but the fluid began to re-accumulate, and in about eight days the chest was as full as before when I again introduced the aspirator needle, and to my astonishment withdrew fifty ounces of cream looking pus! Although every precaution was taken to prevent it, some air may have gained entrance during the first operation. This operation gave great relief, and the patient was better and continued so for about a week, during which he was able to get up and go out once for a drive. The fluid, however, soon began to accumulate again and caused him more distress than before. Long before the chest was half full of fluid, he complained of pain and tenderness in the abdomen, chiefly in the epigastric and right hypochondriac region—so much so that I began to fear pointing through the diaphragm into the abdomen. I now decided to employ drainage by the introduction of an India rubber tube in the chest. Dr. Russell was again called in consultation, and a tube was introduced between the 8th and 9th ribs below the angle of the scapula, and allowed to remain. About thirty ounces of foul smelling pus escaped on the introduction of the tube, and on the following day about as much more was withdrawn. The tube was introduced by means of a trocar and canula—the rubber tube having been selected to fit exactly the canula through which it was slipped after the trocar was withdrawn. The tube used was about fourteen inches in length, two inches of it being within the chest. It was prevented from slipping out by tying a string around it close to the chest sufficiently firm to prevent slipping, and making secure by strips of adhesive plaster. The tube

was tied at the extremity, coiled up and retained *in situ* also by adhesive plaster after use. Through this tube the pus was withdrawn and the cavity washed out once every day with a lotion containing carbolic acid and tincture of iodine* in the proportion of half an ounce of each to the pint of warm water, a combination which had been so successfully employed in the former case. This process was accomplished by means of a Davidson's syringe attached to the extremity of the tube. Under this treatment the formation of pus rapidly diminished, the lung began to expand, and great hopes were entertained of his speedy recovery. The internal treatment consisted of tonics of quinine, iron, and strychnine, together with syrup of the iodide of iron, cod-liver oil, and suitable diet. A few days after the tube was inserted, diarrhœa set in, and continued with more or less severity until his death, which took place on the 13th of August. The diarrhœa was preceded by tenderness in the iliac regions, and was attended more especially towards the close wit discharges of pus, no doubt from extensive ulceration of Peyer's glands. There was no hemorrhage. The discharges from the bowels were also very offensive. The condition of the chest after the introduction of the tube was, on the whole, very satisfactory, and but for this untoward complication the patient would in all probability have made a good recovery. One strange feature in the case was the uniform character of the pulse, which varied very slightly during the whole progress of the case—never reaching higher than 120—generally about 112-15. He was also able to take a large amount of nourishmemt for a person in his condition. Every known means was resorted to, in order to arrest the diarrhœa, but without avail. It seemed from the very outset to be beyond control, and its continuance produced great emaciation. He was reduced to a mere skeleton before his death. He also suffered very much from dysuria, especially at the outset of the diarrhœa, and near the close of his trouble the throat became extensively ulcerated, with loss of voice. The posterior surface of the pharynx, the fauces, and the soft palate were covered with superficial greyish ulcers. Tincture of iodine was applied to the throat every second day, supplemented by a wash of liq. sodæ, chlorinatæ in the interim, with marked benefit. There was no *post mortem* examination.

REMARKS.—The plan of treatment adopted in this case and in the one previously reported, has many advantages over the ordinary drainage tube. The tube is very easily introduced, and fits the opening so tightly, during the first few days, that it can be made entirely to exclude the air from the chest, during a most critical period. This is accomplished by allowing the pus to flow under water, and after a sufficient quantity has been removed, the extremity of the tube is tied firmly, coiled up, and retained in situ by strips of adhesive plaster. The whole of the pus need not, and should not be removed at once. If any signs of faintness occur during the withdrawal of the fluid, the tube can be tied and further removal discontinued until the next day, or next again. The tube becomes loose in the chest, and air passes in by the side of it, but not until the lapse of several days, when the greatest danger is passed. To the extremity of the tube a Davidson syringe* can be easily attached, and will be found indispensable in emptying the chest of contained pus, or of pumping in fluid for the purpose of washing out or disinfecting the cavity. In both these cases this apparatus was used for removing the accumulated pus from day to day, and for the subsequent washing out of the chest, with the carbolated iodine lotion.

* This lotion is perfectly transparent; the carbolic acid bleaches the tincture of iodine.

## Correspondence.

### THE MEDICAL PROFESSION IN MICHIGAN.

To the Editor of the CANADA LANCET.

SIR,—A few years ago quite a number of medical men of Ontario were opposed to the best medical law the world has ever seen, notwithstanding, perhaps, some little imperfections, which will be remedied in due time. I believe, however, the number of croakers at present is insignificant, yet there are a few still left to harp on the injustice of fees, taxes and the general tyranny of the Council. I wish one or two of this class could be prevailed

* A Davidson's syringe can be made to take the place of an aspirator by connecting an aspirator needle to its extremity by a piece of rubber tubing. If the syringe is filled with water before the needle is introduced and the delivery tube kept under water while the fluid is being drawn off, no air can possibly enter.

upon to cross the borders into one of the States where exists unrestricted liberty or free trade, in all matters medical. I am convinced the worst of such croakers would be cured of his malady by a tour into Michigan, for example, extending over so short a time as four weeks. Should any of these sore-heads see fit to act upon my suggestion, I would recommend him to invite Mr. Gordon Brown of the *Globe* to join him on his tour of observation.

Business, of a non-professional character, demanded my attention recently in Michigan, where I remained for a few months. I improved the time as much as possible by inquiring into the state of society, more especially as regards education and the professions. The common school system is not as good as ours was twenty years ago. There is no regular standard of qualification for teachers. Any one may be a superintendent, and is elected on town meeting day as are our Councillors. Such superintendents, often illiterate men, are the examiners of candidates for school certificates. The schools are not open more than two-thirds of the year. Male teachers are employed in winter and a female in summer. A poor high-school they call a college, and from such places issue forth yearly a host of "graduates."

As a class, the lawyers are ignorant and unrefined, although the law requires an examination on entering the profession—such examination being limited to a knowledge of law, time and education being counted only—and is conducted in open court by a circuit judge. It is strange that this should be the case when no such test is applied in medicine. But if we look at home, we shall find, that amongst those who advocate free trade in medicine, not one has demanded free trade in law. Which is the most valuable, a man's property, or his life?

As might be expected in a country enjoying free trade in medical practice, the State is overrun by quacks, both regular and irregular. To one educated practitioner there are at least six or seven who can lay no claim to being educated. I know of one beautiful town of two thousand inhabitants situated in the midst of a rich agricultural country, and far from competition, which has six quacks and only one educated doctor. This ratio will stand good all over the State. Many of these quacks have some kind of diploma obtained in Indiana or elsewhere, and claim to be regulars, and are loud in the denunciation of quackery. But after all they are very little above the ordinary quack in their education, their manners and their practice The larger number, however, have no qualifications for the profession further than that brazen-facedness so essential to the successful charlatan. Nothing strikes the Canadian more forcibly than the uncouthness, general shabbiness and the transparent lack of dignity and all refinement in the class of men, taken as a whole, addressed as "doctor." In Canada, a hod-carrier would be ashamed to go "down town" in the garb in which I have often seen these "professional" gentlemen go about on the streets.

The majority of these men are of low taste and habits, and would disgrace any calling. Gain being their only motive power, they do not scruple to resort to any trick, or crime I may add, that will promote their ends. Just fancy the annoyances the six quacks above mentioned can daily bring to bear on the life of the one educated and refined practitioner with whom they are in competition. This gentleman would give half a year's income, besides a liberal annual tax to get rid of his tormentors. Think of that, ye croakers of Ontario. All the educated practitioners with whom I came in contact would joyfully make any reasonable material sacrifice to have the Ontario Medical Act transcribed on the Michigan statute book.

However desirous the medical schools may be of elevating the standard of professional education they are unable to do so. Our own past experience teaches us that most young men will take the nearest cut. If the schools were to require a long course they might as well close their doors. The result is that the vast majority of regular graduates are far below the average standard of Ontario. Nor can there be a change before the laws set a premium on education and practical training, as is the case in our own country. There is a re-action going on all over the Union in reference to this matter. A few of the States have enacted laws restricting medical practice, but the process will be a slow one at best, and the benefits will come tardily even where such laws exist. It will take a long time to educate the people up to the necessity of enforcing such laws, however much they may approve of them in theory. When the bars are down it is hard to put them up again. We Canadians should draw from this a useful

son. As medical men, we should value the inestimable privileges conferred upon us by the State, and manifest our gratitude by, not only respecting our special laws, but also by uniting to make them more effective for the accomplishment of the good and worthy ends for which they were enacted.

The fact that here and there a quack may be found plying his vocation, is but a weak argument against our laws. The man who so contravenes the law is a law-breaker, and his vocation is thereby made so odious that but few will follow his example. A few more short years and the quack will for ever disappear.

The people, even more than medical men, are interested in this question. It is appalling to think of the amount of suffering, physical and mental, daily superinduced or prolonged by the hundreds of quacks who prey on the sick and suffering in the state of Michigan alone. I will give one illustration. A medical friend asked me to ride with him to see an elderly lady said to be suffering from ovarian tumor. We found her in bed. She stated that she had suffered for eight years, from what the seven or eight physicians whom she had consulted in that time, called ovarian tumor. She informed us she had been recently treated by two physicians, one of them from a city some fifteen miles distant. They told her that an operation would be necessary—of course they had no idea of operating, that was a mere blind,—and that in any event her case was extremely doubtful. After listening to this history, we proceeded to take the dimensions of the tumor, but a most diligent search failed to reveal either its size or location. In short, there was no tumor at all, nor had there ever been. The woman suffered from chronic congestion of the kidneys, and was speedily relieved by suitable treatment. Who can estimate the amount of mental suffering endured by this woman during the long eight years she believed herself to be the victim of an incurable and fatal disease? This is the unhappy condition of a people enjoying, what some amongst us would call, the blessing of free trade in medicine.

Every where, I found that Canadian graduates are held in high esteem, their superiority being freely acknowledged. As a consequence, all worthy Canadian practitioners locating there, are in immediate demand, and soon find themselves in remunerative employment. The compliment thus paid to Canadian talent and Canadian institutions, was to me a source of much pride and gratification. Canadian practitioners are to be found all over the State, and there is room for hundreds more. Most of the medical talent of the State is concentrated in the larger centres of population, while pleasant villages and beautiful country places are left the almost undisputed preserves of the charlatans.

OBSERVER.

October 13th, 1877.

## Selected Articles.

### THE DOCTRINE OF CONTAGIUM VIVUM AND ITS APPLICATIONS TO MEDICINE.*

GENTLEMEN,—The notion that contagious diseases are produced by minute organisms has prevailed in a vague way from a remote age ; but it is only within the last twenty years—since the publication of Pasteur's researches on fermentation and putrefaction—that it has assumed the position of a serious pathological doctrine. In the last decade startling discoveries of organisms in the blood have given this doctrine the support of actual observation ; and its application as a guide in the treatment of wounds by Professor Lister has made it a subject of universal interest to medical practitioners.

The resemblance between a contagious fever and the action of yeast in fermentation—or the action of bacteria in decomposition—is in many points so striking that it is difficult to avoid the impression that there is some real analogy between them. If, for example, we compare the action of yeast with the small-pox, this resemblance comes out very distinctly, as the following experiment will show. I filled two pint bottles, A and B with fresh saccharine urine, and inserted a delicate thermometer in each. A was inoculated, with a minute quantity of yeast, but nothing was added to B. Both bottles were then placed in a warm place in my room, at a temperature of about 70° Fahr. In order to get a correct standard of temperature for comparison, I placed beside these a third bottle, C, filled with water, and inserted a delicate thermometer in it. All these bottles were carefully swathed in cotton-wadding, for the purpose of isolating their individual temperatures, and to obviate as much as possible the disturbing effects of the varying tempera-

*Address in Medicine by W. Roberts, M. D., F. R. S. Manchester, delivered at the British Medical Association August 9th.

ture of the room. For twelve hours no change took place; but at the end of this time A began to ferment, and the thermometer marked a distinct elevation of temperature. On the second day A was in full fermentation, and its temperature was 2·7 deg. above B and C. This disturbance continued for five days, the temperature ranging from two to three degrees above the companion bottles. The disturbance then subsided, and the temperature fell to an equality with B and C, and a considerable sediment, composed of yeast, settled at the bottom. In the meanwhile B showed little alteration; but on the sixth day it began to ferment, the temperature went up, and for more than a week its thermometer stood about two degrees above A and C. Finally, the temperature in B declined, the disturbance subsided, and the newly-formed yeast settled to the bottom of the vessel.

The fever in a bottle resembled small-pox in the following points:—A period of incubation intervened between inoculation and the commencement of disturbance; then followed a period of disturbance accompanied by elevation of temperature; this was succeeded by a subsidence of the disturbance and a return to the normal state. Great multiplication of the infective material (or yeast) took place during the process, and after its conclusion the liquid was protected from further infection with the same contagium. We likewise notice that the contagium of fermentation, like that of small-pox, may take effect either by direct purposive inoculation or by fortuitous infection through the atmosphere. In both cases the infective material has the power of preserving its activity for an indefinite period. The comparison fails in at least one important point—in the fermented urine sugar is replaced by alcohol and carbonic acid, but we are not aware that any pronounced chemical changes occur in the blood or tissues during the attack of small-pox. I would, moreover, carefully guard myself against being supposed to suggest that the enhanced temperature in the fermenting urine is a real analogue of the preternatural heat of fever.

Let us direct your attention to another example—a kind of partial decomposition or fermentation which takes place in boiled hay-infusion when it is inoculated with the *Bacillus subtilis*. The *Bacillus subtilis* is a very common bacterium, found in vegetable infusions and in curdling milk. I hope you will take note of this little organism; for I shall have to refer to it more than once in the course of this address. I took a flask containing hay-infusion which had been sterilised by boiling, and inoculated it with a drop of fluid swarming with *Bacillus subtilis*. After the lapse of twenty-four hours the previously transparent infusion became turbid. This turbidity increased, and on the second day a film or crust formed on the surface of the infusion. On the third and subsequent days, the crust broke up, and fell in pieces to the bottom of the vessel. In about a fortnight the turbidity passed away, and the origional transparency of the infusion was now a sediment consisting of the spores of the little organism at the bottom of the flask. In this case, again, there was the same succession of events—a period of incubation, followed by a period of disturbance, succeeded by a period of subsidence, and, finally, restoration to the normal state. There was also great increase of the infective material and immunity from further attack by the same contagium.

The yeast-plant and the *Bacillus subtilis* may be taken as representatives of a large class of organisms, in regard to which we are only beginning to realise their vast importance in the economy of Nature and in the life of man. They are as I shall presently show, the essential agents in all fermentations, decompositions, and putrefactions. We may group them together, for the convenience of description, under the general designation of *saprophytes*—a term intended to include, under one heading, all the organisms associated with the decomposition and decay of organic matter. The yeast-plant and its allies, and all the numerous species and varieties of bacteria, belong to this group. In size and form, they are among the smallest and simplest of living things, but their vital endowments are wonderful.

All the organisms hitherto found associated with infective inflamations and contagious fever belong to the tribe of bacteria, and we cannot advantageously enter on a study of that association without knowledge of the origin and attributes of these organisms. This brings us into a field of active controversy. It has been alleged, as you know, on high authority, that these organisms, under certain conditions, depart entirely from the universal law of generation, which is expressed in the aphorism *omne vivum è vivo*, and that they may arise spontaneously by a process of abiogenesis. It is also alleged that these organisms are not the actual agents of decomposition, but are merely associated with that process as secondary or accidental accompaniments, I propose to lay before you evidence that both these allegations are unsustainable, and to prove that bacteria, like other organisms, arise from pre-existing parent gems, and in no other way, and that they are the actual agents in all decomposition and putrefaction.

The first proposition I shall endeavour to establish is this: that organic matter has no inherent power of generating bacteria, and no inherent power of passing into decomposition.

I have placed before you samples of three sets of preparation, out of a large number in my possession, which serve to substantiate this proposition.

The first set consists of organic liquids and mixtures which have been rendered sterile by a sufficiently prolonged application of the heat of boiling

water. They are composed of infusions of vegetable and animal substances, fragments of meat, fish, albumen, and vegetables floating in water. They are contained in oblong glass bulbs, and are protected from the dust of the air by a plug of cotton wool inserted into the necks of the bulbs, but freely open to its gaseous elements, which pass in and out through the cotton-wool. They are all, as you see, perfectly transparent and unchanged, though most of them have been in my possession for several years.

The second set consists of organic liquids which have been simply filtered under pressure through unglazed earthenware into sterilised flasks. They include acid and neutralised urine, albuminous urine, diluted blood, infusions of meat and of hay. As these preparations were obtained by a method which is in some respects new, I will describe it to you. A piece of common tobacco-pipe, about six inches long, served as the filter. This was secured by india-rubber piping to the exit-tube of one of the little flasks used by chemists for fractional distillation. The flask is first charged with distilled water, and then a tight plug of cotton-wool is inserted into its neck. The flask is next set a-boiling briskly over a lamp. The steam rushes through the cotton-wool plug and through the tobacco-pipe, clearing both these passages of any germs they might contain. When the water has nearly boiled away, the end of the tobacco-pipe is hermetically sealed with melted sealing-wax. After a little more boiling the flame is withdrawn, and the neck of the flask is instantly closed with a tight vulcanite cork. The apparatus is now ready for action, and the tobacco-pipe is immersed in the liquid to be filtered. When the flask cools, a vacuum is created within it, and this serves as a soliciting force to draw the liquid through the earthenware into the flask. The process of filtration is very slow: it takes two or three days to charge the flask. When a sufficiency has come over, the apparatus is removed and placed on a shelf for a few days, until the pressure inside and outside the flask is equalised. The vulcanite cork is then withdrawn, and the exit-tube is separated and sealed in the flame of a lamp. In this way you obtain a sterilised flask charged with the filtered organic liquid, and protected from outside contamination by a plug of cotton-wool. Preparations obtained in this way, if due precautions have been used in the manipulation, remain permanently unchanged; organisms do not appear in them, and decomposition does not ensue.

The third set of preparations are in some respects the most significant of the three. They consist of organic liquids which have been simply removed from the interior of the living body, and transferred, without extraneous contamination, into purified glass vessels. I will not detain you with the methods employed to obtain them; it is sufficient to say that, by the use of proper precautions, it is possible to convey blood, pus, urine, ascitic fluid, pleuritic effusion, blister serum, or the contents of an egg into sterilised glass vessels without contact with any infecting agency. Preparations thus obtained are exhibited in these flasks; they are protected from air-dust by a simple covering of cotton-wool. All of them are absolutely free from organisms and from any signs of decomposition.

What meaning can we attach to these preparations? You all know that liquids and mixtures such as these speedily decompose, and swarm with organisms, when left to themselves exposed to the air. They are of the most varied composition, and the most apt of all known substances to breed bacteria and to become decomposed. They have been exposed to the most favourable conditions in regard to warmth, moisture, and air. Many of them have been in my possession several years, and all of them for several months, yet they are wholly barren and without sign of decomposition. I venture to say that these preparations substantiate in a most positive manner the proposition with which we started, namely, *that organic matter has no inherent power of generating bacteria, and no inherent power of passing into decomposition.*

A second proposition is likewise established by these preparations, namely, *that bacteria are the actual agents of decomposition.*

In all the preparations, the absence of bacteria coincides with the absence of decomposition. If I were to cause bacteria to appear in them, either by purposive infection or by exposing them to the unfiltered air, decomposition would infallibly follow. The filtration experiments supply a new and telling argument on this point. Some of the liquids became decomposed and full of bacteria while the filtration was going on, but the part which came over into the flasks remained without further change, showing that decomposition cannot go on without the actual contact of the living organisms.

We have next to ask ourselves, What are the sources and what is the nature of the fecundating influence which causes organic liquids, when abandoned to themselves without protection, to become peopled with organisms? In regard to their source, the answer is not doubtful. If I remove the covering of cotton-wool from any of these preparations, and admit unfiltered air, or a few drops of any ordinary water, however pure, or anything that has been in contact with air or water, organisms make their appearance infallibly in a few hours. As to the nature of the infective agents, we can say positively that they must consist of solid particles, otherwise they could not be separated by filtration through cotton-wool and porous earthenware. Is it not a most natural inference that they are the parent germs of the brood which springs up at their impact? They are, however, so minute that

we cannot identify them as such under the microscope; but Professor Tyndall has demonstrated that air which is optically pure—that is, air which is free from particles—has no fecundating power.

It is contended in some quarters that these particles are not living germs of any sort, but simply particles of albuminoid matter in a state of change which, when they fall into an organic liquid, communicate to it their own molecular movement, like particles of a soluble ferment, and so produce decomposition, which, in its turn, provides the conditions necessary for the abiogenic generation of bacteria. Filtration through porous earthenware furnishes a complete answer to this theory; for I found on trial that the soluble ferments passed with ease through the porous earthenware. If, therefore, this theory were true, the filtered liquids, if already commencing to be decomposed, would go on decomposing, and would develope bacteria after infiltration; but instead of that they remained unchanged and barren. We are absolutely driven to the conclusion that these particles are living terms: no other hypothesis squares in the least degree with the facts of the case.

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We now approach the more practical side of our subject—that which concerns us as practitioners of medicine and students of pathology. I have already directed your attention to the analogy between the action of an organized ferment and a contagious fever. The analogy is probably real, in so far, at least, that it leads us to the inference that contagium, like a ferment, is something that is alive. We know of nothing in all our experience that exhibits the phenomena of growth and self-propagation except a thing possessed of life.

This living something can only be one of two things; either it is an independent organism (a parasite) multiplying within the body or on its surface, or it is a morbid cell or mass of protoplasm detached from the diseased body and engrafted on the healthy body. Possibly, both these conceptions may have their application in the explanation of different types of infective diseases. In regard to the latter conception, however—the graft theory—which has been so ably developed by my friend Dr. Ross, I will only say that it has not, as yet, emerged from the region of pure speculation. It lacks an established instance or prototype; and it fails to account for the long enduring dormant vitality so characteristic of many contagia, which conforms so exactly with the persistent latent vitality of seeds or spores, but which contrasts strongly with the fugitive vitality of detached protoplasm.

If, then, the doctrine of a contagium vivum be true, we are almost forced to the conclusion that a contagium consists (at least, in the immense majority of cases) of an independent organism or parasite, and it is in this sense alone that I shall consider the doctrine.

It is no part of my purpose, even if I had the time, to give an account of the present state of knowledge on this question in regard to every contagious disease. My object is to establish the doctrine as a true doctrine—to produce evidence that it is undoubtedly true in regard to some infective inflammations and some contagious fevers. In an argument of this kind it is of capital importance to get hold of an authentic instance, because it is more than probable—looking to the general analogy between them—that all infective diseases conform in some fashion to one fundamental type. If septic bacteria are the cause of septicæmia—if the spirilla are the cause of relapsing fever—if the *Bacillus anthracis* is the cause of splenic fever—the inference is almost irresistible that other analogous organisms are the cause of other infective inflammations and of other specific fevers.

I shall confine my observations to the three diseases just named—septicæmia, relapsing fever, and splenic fever—merely remarking that, in regard to vaccinia, small-pox, sheep-pox, diphtheria, erysipelas, and glanders, the virus of these has been proved to consist of minute particles having the character of micrococci; and that, in regard to typhus, scarlet fever, measles, and the rest of the contagious fevers, their connection with pathogenic organisms is as yet a matter of pure inference.

SEPTICÆMIA.—We will first inquire how it stands with this doctrine in regard to traumatic septicæmia and pyæmia. You are all aware that foul, ill-conditioned wounds are attended with severe, often fatal, symptoms, consisting essentially of fever of a remittent type, tending to run on the formation of embolic inflammations and secondary abscesses.

The notion that septicæmia is produced by bacteria, and the *rationale* of the antiseptic treatment which is based thereupon, is founded on the following series of considerations.

1. It is known that decomposing animal substances—blood, muscle, and pus—develope at an early stage of the process a virulent poison, which when injected into the body of an animal, produces symptoms similar to those of clinical septicæmia. This poison is evidently not itself an organism; it is soluble, or at least, diffusible in water, and it is capable, by appropriate means, of being separated from the decomposing liquid and its contained organisms. When thus isolated it behaves like any other chemical poison; its effects are proportionate to the dose, and it has not the least power of self-multiplication in the body. To this substance Dr. Burdon-Sanderson has given the appropriate name of pyrogen. It is the only known substance which produces a simple uncomplicated paroxysm of fever—beginning with a rigor, followed by a rise of temperature, and ending, if the dose be not too large, in defervescence and recovery.

2. We know further, from the evidence I have laid before you, that decomposition cannot take

place without bacteria, and that bacteria are never produced spontaneously, but originate invariably from germs derived from the surrounding media. We are warranted by analogy in regarding pyrogen. as the product of a special fermentation taking place in decomposing albuminoid mixtures, but we cannot name the particular organism nor the particular albuminoid compound which are mutually engaged in the process.

3. In the third place, we know that when a wound becomes unhealthy, as surgeons term it, the discharges become offensive—in other words, decomposed—and when examined under the microscope they are found to swarm with organisms resembling those found in all decomposing fluids. Meanwhile the patient becomes feverish, and suffers from the train of symptoms which we call septicæmia.

It is a natural inference that what takes place in decomposing blood or muscle in the laboratory takes place also in the serous discharges and dead tissues of the wound. These become infected from the surrounding air, or from the water used in the dressings, with septic organisms; on that follows decomposition and the production of the septic poison, or pyrogen; the poison is absorbed into the blood, and septicæmia ensues.

It was the distinguished merit of Lister to perceive that these considerations pointed to a means of preventing septicæmia. He argued that if you could prevent the access of septic organisms to the wound, or destroy them there, you would prevent decomposition, prevent the production of the septic poison, and thus obviate the danger of septicæmia. It is not within the scope of this address to describe the means by which Lister attained this object, still less to pass judgment on his practice, but I may be permitted to express my belief that the principle on which the treatment is founded is unassailable.

We should probably differ less about the antiseptic treatment if we took a broader view of its principle. We are apt to confound the principle of the treatment with Lister's method of carrying it out. The essence of the principle, it appears to me, is not exactly to protect the wound from the septic organisms, but *to defend the patient against the septic poison.* Defined in this way, I believe that every successful method of treating wounds will be found to conform to the antiseptic principle, and that herein lies the secret of the favourable results of modes of treatment which at first sight appear to be in contradiction to the antiseptic principle. Take, for example, the open method of treating wounds which is sometimes compared in its results with Lister's method. What is this treatment but another way (only less ideally perfect than Lister's) of defending the patient against the septic poison? Because, if the surgeon succeeds in providing such free exit for the discharges that there is no lodgment of them in the wound, either they pass out of it before there is time for the production of the septic poison, or if any be produced, it escapes so quickly that there is not enough absorbed to provoke an appreciable toxic effect.

Before we can understand the pathology of septicæmia we must have clear ideas on the relation of septic bacteria to our bodies. We see in old laboratories that dead animal tissues, when exposed to ordinary air or ordinary water, invariably breed septic organisms; in other words contact of the septic germs with the dead tissues never fails to produce successful septic inoculation. But it is quite otherwise with the same tissues when alive and forming part of our bodies. You cannot successfully inoculate the healthy tissues with septic bacteria. It has been proved over and over again that these organisms, when separated from the decomposing medium in which they grow, can be injected in quantity into the blood or tissues of a healthy animal, or applied to a sore on its skin, without producing the least effect. The healthy living tissues are an unsuitable soil for them; they cannot grow in it; or, to put it in another way, ordinary septic bacteria are not parasitic on the living tissues.

This fact is of fundamental importance in the discussion of the pathology of septicæmia. We have a familiar illustration of its truth in the now common practice of subcutaneous injection. Every time you make a subcutaneous injection you inject septic germs into the tissues. I had the curiosity to test this point with the morphia solution used for this purpose in the Manchester Infirmary. I injected five drops of this solution into four flasks of sterilised beef-tea which had remained unchanged in my room for several months, taking care to avoid any other source of contamination. In forty-eight hours they were all in full putrefaction. But we know that no such effect follows when similar injections are made into the bodies of our patients.

It seems also probable that septic organisms enter constantly into our bodies with the air we breathe and the food we take; they pass, presumably, like any other minute particles, through the open mouths of the lymphatics and lacteals, and penetrate some distance into these channels; they certainly come in contact with the accidental cuts, sores, and scratches which so often bedeck our skins. Notwithstanding all this, our bodies do not decompose; indeed, if ordinary septic organisms could breed in the living tissues as they do in the same tissues when dead, animal life would be impossible, every living creature would infallibly perish. How these organisms are disposed of when they do enter our bodies accidentally, as it were, in the various ways I have suggested, we cannot say; we can only suppose that they must speedily perish, for we find no traces of them in the healthy blood and healthy tissues. (*a*)

Bearing in mind, then, that ordinary septic or-

ganisms cannot breed in living tissues, unless, at least, they are reduced to near the moribund state; bearing also in mind that there is a sharp distinction to be drawn between the septic poison and the organisms which generate it, we are in a better position to consider the course of events in a wound, which leads on to septicæmia and pyæmia. What probably takes place is this: An unprotected wound receives infection from the septic organisms of the surrounding media. If the discharges are retained in the sinuosities of the wound, decomposition of them sets in with production of the septic poison. This is absorbed into the blood, a toxic effect follows and septicæmia is established. As this effect increases with the continuous absorption of the poison, the vitality of the system is progressively lowered, and especially the vitality of the tissues bordering the wound, which may be topically affected by the poison which percolates through them. These tissues at length become moribund or die outright; the septic organisms then invade and breed in them, more septic poison is produced and absorbed; the toxæmia becomes intense, embolic centres of inflammation and suppuration are formed and the end comes. In all this history there is no necessity to assume, or even a probability, that septic organisms invade, or at least multiply in, the blood. They may do so at the near approach of death, but scarcely before that period.

In the course of traumatic septicæmia there sometimes occurs an event of great importance which imparts a new feature to the disease; I mean *infectiveness*,. How this arises is a matter of speculation. To me it appears probable that, under a certain condition of occurrence of conditions in and about the wound, a modification takes place in the vital endowments of the septic organism, whereby is acquires a parasitic habit, which enables it to breed in tissues of degraded vitality or even in the healthy tissues, and in this way to produce the infective endemic pyæmia which we sometimes witness in the wards of our large hospitals.† I shall develop this idea more fully bye and bye.

Before leaving the subject of septicæmia, I may allude to the possibility of wounds being infected with septic organisms from within. As a rare occurrence, I am inclined to think that this is possible, and that it may account for the occasional alleged infection of protected wounds. From an observation by Chauvea, it may be inferred that septic organisms, when injected directly into the blood, are able to survive for two or three days, although unable to breed there. ‡ It is conceivable that occasionally a septic germ entering the body in some of the ways which have been suggested may escape destruction and pass into the blood and lurk there awhile, and finding by chance some dead tissue or liquid within its reach, may multiply therein and produce septic effects. Such a contingency, if it ever occur, must be very rare, and would not appreciably detract from the value of the antiseptic mode of dressing wounds.

† Such a modification or "variation" might be correlated with a modification of the ferment action, whereby a more virulent septic poison is produced. Would not such a view explain the sudden intensification of the infecting virus which was found by Chauveau and Dr. Sanderson in their experiments on infective inflammation?

‡ *Comptes Rendus*, 1873, p. 1092.

Relapsing Fever.—In 1872, Dr. Obermeier, of Berlin, discovered minute spiral organisms (spirilla) in the blood of patients suffering from relapsing fever, This discovery has been fully confirmed by subsequent observations. The organisms are found during the paroxysms; they disappear at the crisis; and are absent during the apyrexial periods.

The drawings represent the various appearances presented by these little parasites. They consist of spiral fibrils of the most extreme tenuity, varying in length from two to six times the breadth of a blood corpuscle. In the fresh state they move about actively in the blood. They have not been detected in any of the fluids or secretions of the body except the blood, nor in any other disease than relapsing fever. In form and botanical characters they are almost identical with the *Spirochaete plicatilis* of Ehrenberg, (*Spirillum* of Dujardin), a species of bacteria found in dirty water and occasionally in the mucus of the mouth. Cohn designated the variety found in the blood *S. Obermeieri* in honour of its discoverer.

In the beginning of the current year, Dr. Heydenreich (*e*) of St. Petersburg, published an elaborate monograph on this subject, which, I think, goes far to reconcile the conflicting statements and opinions put forth by previous writers in regard to the connection of the spirilla with relapsing fever. It is based on forty-six cases; these cases were studied with the most minute care; the blood was examined, and the temperature observed from two to six times each day. Altogether, over a thousand examinations of the blood were made.

Relapsing fever still prevails extensively in certain districts of Germany and Russia, but it is almost a forgotten disease in this country; and probably the majority of those in this room have never seen a case. It will, therefore, not be amiss if I remind my hearers, and myself, of its principal features. It is a contagious epidemic fever, characterized by a sharp paroxysm of pyrexia, which lasts about a week, and ends with a severe critical sweating. This is succeeded by an intermission also of about a week, during which the patient is apyrexial; then follows a second paroxysm, or relapse, which lasts four or five days, and ends, before, in a critical sweating. Recovery usually follows the second paroxysm, but not unfrequently a third paroxysm occurs, and sometimes a fourth.

The paroxysms are occasionally broken by

missions or pseudo-crises; and the apyrexial periods are sometimes interrupted by slight temporary rises of temperature.

Bearing these charactersistics in mind, we shall be able to understand the significance of Heydenreich's observations. He found that every rise of temperature, whether that of the true paroxysm, or that following a pseudo-crisis, or those occurring during the intermissions, was invariably preceded by the appearance of spirilla in the blood. They disappeared shortly before the crises, and remained absent during the deferescence and the subsequent apyrexial periods. During the whole of the main paroxysms spirilla were usually to be found in the blood, but their number varied in the most puzzling manner from day to day. One day they were abundant, the next day they were scanty, and the day after they were again abundant; they even varied at different hours of the same day; some times they vanished altogether for a time, and then reappeared in vast numbers a few hours later. Throughout these variations the temperature remained steadily high, or with only slight and moderate oscillations.

These discrepancies had been observed by previous inquirers, and had led some to doubt, whether the spirilla had anything to do with the virus of relapsing fever; but a happy idea suggested itself to Hydenreich which seems capable of explaining them.

He found that when a little blood containing spirilla was abstracted from the patient and kept at the ordinary temperature of the room, the organisms lived in it for several days; but if the blood was placed in an incubator and maintained at the normal temperature of the body, they died in from twelve to twenty hours, and if the temperature was kept up to fever heat (104 deg. F.) their life was still shorter; they only survived from four to twelve hours. This led him to the conjecture that during the main paroxysm, not one, but several successive generations of spirilla were born and died before their final disappearance at the crisis. He surmised that in the usual course, the broods would overlap each other more or less, the new brood making its appearance before the last survivors of the old brood had passed away. This explained the variable number of spirilla found on different days and different hours of the same day. Sometimes the old brood would have altogether perished before the new brood reached maturity; this explained the occasional temporary absence of spirilla from the blood; it also explained the remissions of pseudo-crises sometimes observed in the course of the paroxysms. So precise was the correspondence found to be between the appearance of the spirilla and a subsequent rise of temperature, that Heydenreich was able to predict with certainty, during the apyrexial periods, the approaching advent of a transient rise of temperature from the reappearance of spirilla in the blood, although at the time the patient presented no other indication of what was about to happen.

If these observations are to be relied on—and they appear to have been made with the most scrupulous care—we are led to the conclusion that the spirilla are the actual virus of relapsing fever.

The same conclusion is also strongly indicated by the results of inoculation experiments. Relapsing fever is easily communicated to a healthy person by inoculation with the blood of a patient suffering from the disease. Experiments made in Russia on individuals who voluntarily submitted themselves to this practice, show that the blood is only infective during the paroxysms. but not at the crises or during the apyrexial periods. None of the fluids or secretions of the body except the blood are infective. All this shows that the virus is intimately associated with the spirilla, and is absent or present in exactly the same circumstances as the latter.

The occasionally observed vanishing and re-appearance of the spirilla during the paroxysms, without a possibility of new infection, seems to indicate that when the spirilla disappear they leave behind them something in the nature of seed or spores, from which the new brood spring forth. Ocular evidence of such germs is, however, still wanting. Several observers have noticed minute particles in the blood of relapsing fever which might pass for spores, and Heydenreich observed that some of the spirilla had a dotted appearance. But hitherto all efforts to cultivate the spores out of the body have failed, and their power of developing spores is more an inference than a demonstration.

Splenic Fever.—The first trustworthy observation of the presence of organic forms in the infective disease was made in splenic fever. This formidable disorder attacks sheep, cows, and horses, and is not unfrequently fatal to man. In 1855, Pollender discovered minute staff-shaped bacteria in the blood of splenic fever. This discovery was confirmed in a very extensive series of researches by Brauell, and has been corroborated by Davaine and other inquirers in France.

The bacterium of splenic fever is a short, straight, motionless rod, about as long as the breadth of a blood-corpuscle, and so far as is known, it exists in no other form in the living body. It is found, besides the blood, in the spleen, in the lymphatic glands, and in some other tissues. That this organism is the true virus of splenic fever, has long been probable: and the labours of Davaine, Bollinger, Tiegel, Klebs, and, most of all, of Koch, have removed the last doubts on the subject. The work done by Koch is not only valuable as a triumphant demonstration of a disputed pathological question, but is noteworthy as a model of patient, ingenious, and exact pathological research.

We have come across an example of scientific prescience on the part of two distinguished men which is worth notice. It had been remarked by several observers that the contagium of splenic fever, as it existed in the blood, was comparatively short-lived and fugitive, but that, under some unexplained circumstances, the contagium was very persistent, and lurked for years in stables, and other places where cattle were kept. Dr. Burdon Sanderson, writing in 1874, inferred from the circumstance that the organisms of splenic fevers must have two states of existence; namely, that of the perishable bacteria found in the blood and some other more permanent form, like seeds or spores, in which they were capable of surviving for an indefinite period. In like manner, Professor Cohn, guided by the botanical characters of the rods found in the blood, classed them in that group of bacteria name by him *Bacillus;* and as he had observed that all the *Bacilli* produced spores, he inferred that the *Bacillus anthracis*—for so he named the bacterium of splenic fever—would also be found to produce spores. These previsions were proved by the researches of Koch to be perfectly exact.

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The laws of variation seems to apply in a curiously exact manner to many of the phenomena of contagious diseases. One of these laws is the tendency of a variation, once produced, to become permanent and to be transmitted ever after with perfect exactness from parent to offspring; another and controlling law is the tendency of a variation, after persisting a certain time, to revert once more (under altered conditions) to the original type. The sporting of the nectarine from the peach is known to many horticulturists. A peach-tree, after producing thousands and thousands of peach-buds, will, as a rare event and at rare intervals, produce a bud and branch which ever after bear only nectarines; and, conversely, a nectarine at long intervals, and as a rare event, will produce a branch which bears only peaches ever after. Does not this remind us of the occasional apparent sporting of diphtheria from scarlet fever? My friend Dr. Ransome, who has paid so much attention to the laws governing the spread of epidemics, relates the following instance:—A general outbreak of scarlet fever occurred at a large public school. One of the masters who took the infection exhibited diphtheritic patches on the throat. This patient was sent to his own home in Bowdon. Six days after his arrival, his mother was attacked, not with scarlet fever, but with diptheria; though there were no cases of diptheria at the time, neither at the school nor in Bowden. (*a*)

(*a*) Complex cases of mingled scarlet fever and diphtheria are sometimes seen. Similarly the peach-tree will occasionally, among a multitude of ordinary fruit, produce one fruit of which one-half has the peach character and the other half the nectarine character.—DARWIN.

Take another illustration: cholera suddenly breaks out in some remote district in India, and spreads from that centre over half the globe. In three or four seasons the epidemic dies away and ceases altogether from among men. A few years later it reappears and spreads again, and disappears as before. Does not this look as if the cholera virus were an occasional sport from some Indian saprophyte, which by variation has acquired a parasitic habit, and, having run through countless generations, either dies out or reverts again to its original type? Similarly, typhoid fever might be explained as due to a variation from some common saprophyte of our stagnant pools or sewers, which, under certain conditions of its own surrounding, or certain conditions within the human body, acquires a parasitic habit. Having acquired this habit, it becomes a contagious virus, which is transmitted with its new habit through a certain number of generations; but finally, these conditions ceasing, it reverts again to its original non-parasitic type.

In regard to some contagia, such as small-pox and scarlet fever, it might be said that the variation was a very rare one, but also a very permanent one, with little or no tendency to reversion; while others, like erysipelas and typhoid fever, were frequent sports, with a more decided tendency to reversion to the original type. In regard to some pathogenic organisms, it might be assumed that the parent type had disappeared, and the parasitic variety only remained—just as the wild parents of many of our cultivated flowers and vegetables have disappeared, leaving behind them only their altered descendants.

How aptly, too, this view explains what used to be called the "Epidemic Constitution," and the hybrid forms and subqarieties of eruptive and other fevers.

I must not pursue this vein further. I have said enough to indicate that this conception enables us—if it does nothing else—to have coherent ideas about the origin and the spread of zymotic diseases.

In applying the doctrine of pathogenic organisms—or *pathophytes*, as they might be termed—to the explanation of the phenomena of infective diseases, we must be on our guard against hard-and-fast lines of interpretation. So far as our very limited knowledge now extends, the pathophytes hitherto discovered all belong to that group of the fungi which are called bacteria. Now, fungi have two marked characteristics, namely, the tendency to assume the parasitic habit, and the possession by some of them of a special ferment action. Both these characteristics may bear a part in the action of pathogenic organisms. In the complex phenomena of septicæmia such would appear to be the case—a poisonous ferment-product first intoxicates the system, and then the organisms themselves prey upon the dead or moribund tissues.

There is, as Dr. B. Sanderson has pointed out, a marked distinction to be drawn between those common processes of infective inflammation which are shared in by animals generally—such as septo-pyæmia, erysipelas, and the diphtheritic process—and those specific contagia which are strictly confined, like ordinary parasites, to particular species. There is nothing in all nature more wonderful than the intimate and subtle nexus which unites a parasite to its host. A hundred examples might be given. Even different varieties or races of the same species have different and exclusive parasites. It would seem as if this nexus depended on some delicate shade—*a nuance*—something like an odour, or a savour, or a colour, rather than on differences of structure or chemical composition. The same minute correlation is seen in specific contagia—all are strictly confined to one or a few species. Vaccinia is confined to man, the horse, and the cow; scarlet fever is confined to man, and perhaps the swine; most of our specific diseases are absolutely confined to man. The human and bovine small-pox, although so wonderfully similar, are not intercommunicable. I am, therefore, inclined to believe that, in regard to specific contagia, we shall find more guiding analogies in parasitism than in fermentation. Our information at present is, however, so defective that it is not wise to enter into further speculations on this subject.

Gentlemen, I have brought my task to a conclusion. I believe that the doctrine of a contagium vivum is established on a solid foundation; and that the principle it involves, if firmly grasped in capable hands, will prove a powerful instrument of future discoveries. And let no man doubt that such discoveries will lead to incalculable benefits to the human race: our business in life is to do battle with disease, and we may rest assured that the more we know of our enemy the more successfully we shall be able to combat him.—*Medical Press and Circular.*

## SURGERY PAST AND PRESENT. (*a*)

BY T. SPENCER WELLS, F.R.C.S.E.

The author commenced his address by tracing the progress of the science from the Elizabethan age to the present time. He contended that the science of surgery had in the period mentioned advanced as much as any other art or science; great as those advances had been, and considering how the advances might be further carried on, he drew attention to the subject of anæsthesia and anæsthetics. He reminded his hearers of the anæsthetics at present in vogue, and remarked that in 1872 he made known his opinion that all the advantages of anæsthesia, with fewer drawbacks, could be obtained by the use of bichloride of methyline or chloromethyl than by any other known anæsthetic. It was the result of an experience of five years and of 350 serious operations. The experience of the five succeeding years, with more than 600 additional cases of ovariotomy, and many other cases of surgical operation, had fully confirmed him in that belief. Perhaps they were hardly aware how much the public expected from them in this matter. Deaths from chloroform were alarmingly frequent, yet no substitute for it had found universal or even general acceptance in this country; and he was not speaking too strongly if he said it was the duty of the Association at once, without any unnecessary delay, to satisfy the public that all that was possible was being done to discover the means by which anæsthesia, effectual now, might be rendered safe for the future. A certain section of the community, well meaning it might be, but led astray by thoughtless enthusiasts or self-interested itinerant lecturers, vehemently asserted that if medical men were to perfect themselves in these or in other modes of saving human life or lessening human suffering, they must only do so by practice upon the human subject; they must not, as a surgeon or a physiologist, take the life of a dog or a cat, a rabbit or a sheep, a pigeon or a frog, for any scientific purpose, or with the object of benefitting the human race. Anybody might slaughter oxen and sheep by thousands for human food in any way he pleased, oysters might be eaten alive—the pheasant or the partridge, the fox or the deer might be expressely reared to supply the sportsman with exercise or the amusement of killing; in a word, the lower animals might be devoted to the use of man for any purpose that was not scientific. But if a surgeon experimentally sacrificed half a dozen dogs or rabbits in the hope of improving some operation which might prevent the loss of human life or lessen human suffering, he was branded as inhuman, and barely escaped the supervision of the police. Possibly some of those benevolent individuals would voluntarily offer up themselves to the committee on transfusion, in the hope of perfecting the practice. Until they did so, they would perhaps be a little less clamorous if a few sheep or rabbits were used in the cause of humanity. With regard to splenotomy, pancreotomy, and nephrotomy, accident had proved that the spleen, or the pancreas, or a kidney might be lost without great injury to the human being. Surgeons had removed wounded pancreas and enlarged spleens, and a diseased kidney had been extirpated on two occasions at least, but the operative proceedings were still imperfect. Were surgeons to be allowed to excise the spleen or a kidney of a dog or a rat, or would zealous members of some anti-vivisection society enrol themselves as candi-

(*a*) Abstract of an address delivered in the Surgical Section, (*Brit. Med. Association*), at Manchester. August 9th, 1877.

dates for that immortality which was gained by anyone who immolated himself upon the altar of science? It would be false modesty if he were not to say boldly before the Association that he was proud of the share which British surgeons had had, and of the share which he himself had had in placing ovariotomy upon the roll of successful surgical operations. Great leaders among them, Simpson and Syme, Stromeyer and Billroth, Velpeau and Nélaton, had shown a generous appreciation of their work. And could they imagine a greater pleasure to a surgeon than to hear the president of the Medical and Chirurgical Society speak of his improvements in the operation of ovariotomy as "one of the greatest achievements of surgery in this century, and the influence for good extended through every department of operative surgery?" While at the same society in 1850, Lawrence had asked whether this operation "can be encouraged or continued without danger to the character of the profession?" less than a quarter of a century after that denunciation Lord Selborne publicly stated the result of a calculation, that by his (Mr. Wells's) first 500 operations he had added something like 10,000 years to the lives of European women.

What number of operations had been done by other surgeons he knew not, but supposing that the same probability of the duration of life applied to the women who have recovered from operations he had done since the results of his 500 cases were published in 1872, the gain would be about 18,000 years, and this by one surgeon alone, and by an operation which only thirty years ago was denounced as so fearful "in its nature, often so immediately fatal in its results," that, whenever performed, "a fundamental principle of medical morality is outraged." When German princes practise surgery, and a brother of an English Earl, a Cabinet Minister, was met with as a practising physician, they might think less of the admission of members of their profession into royal and noble families, and look with more hope for recognition by the Government of services rendered by medicine and surgery to the nation. They would not then have to notice anything so disheartening to a learned profession as the fact, that while for the affair of Magdala Lord Napier was honoured by a title and rewarded with a pension, the extended average duration of life of the whole population, and its actual increase, due to sanitary and medical science, and far exceeding in importance the annexation of a province, or even of a kingdom, had earned for Simon the barren right, shared by many less honourably known men, of putting the magic letters C.B. after his name, and William Farr still remained without any mark of national gratitude. Why should a baronetcy be the highest titular distinction conferred upon members of their profession? Was Jenner or Paget less worthy of a life-peerage than anyone of the eminent men who now sit on the bench of bishops—or any of the lawyers, soldiers, or sailors who had been rewarded by hereditary peerage? None of their leaders had time for electioneering or the turmoil of party struggles in the House of Commons; whereas many of them were well fitted for the more dignified position, and would be quite able to devote their time and energy to sanitary legislation in the Senate.

If, in the 40 years since the Association was founded, the great progress which he had so hastily and imperfectly endeavoured to review had been made, what might they not augur for it in years to come? The Association had its early struggles, and had passed through them. The history of the past and the study of the present, alike helped them to look forward with hope and trust to the future. He further urged the importance, or rather the absolute necessity, that the surgeons of the future must be educated gentlemen; that schemes of education should be so ordered as to bring into the profession, as far as possible, young men who had had the advantage of the highest general culture to be obtained by any English education. Until this was secured the flower of the University youth would still choose the church or the bar, the army or the navy, or some branch of the Civil Service of the State, where they at once took an enviable social position as members of an honourable profession, and where a successful career might lead to a seat in the House of Lords, to the pensions and tithes freely granted to the fortunate soldier or sailor, and more sparingly, to the meritorious Civil servant of the Crown. It was rather surprising that without any of those inducements, and in spite of the taint of trade forced upon the profession by the powers of the Apothecaries' Company, and its continued alliance with their colleges and universities, they still had abundant evidence of a rapid rise of the profession in the social scale.—*Med. Press & Circular.*

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THE LOCAL TREATMENT OF PSORIASIS, as recommended by Auspitz *(Allg. Med. Cent-Zig.)*, differs decidedly from the scraping recommended by the junior Hebra and Bardenhever, for their plan is almost always followed by relapses The best results, he claims, have been obtained from brisk frictions with fine sand, followed by the local application of liq. ferri sesquichlor.

The Renewal of Prescriptions in Germany has recently been forbidden by law, except on the order of the physician originating the prescription, whenever it shall contain powerful medicines, such as drastics, emmenagogues, emetics or opiates.

## INVERSION OF THE UTERUS; RECOVERY.

Inversion of the uterus is a lesion sufficiently rare to justify the publication of every case, however simple. The grave nature of the injury and the dangers both immediate and remote attending it, the fact that it may occur without attracting the notice of the physician, and that even when attention is called to it there may be failure to recognise its character and take immediate steps for relief, are good reasons why every physician, in obstetric practice at least, should be familiar with its signs and symptoms. That acquaintance with the accident is not general, the number of cases of unreduced inverted uteri related in current obstetric literature makes sufficiently evident. Cases are recorded varying in duration from a few hours to fifteen years,—Dr. White (Buffalo) relating one which was reduced by him after that lapse of time. Fortunately, however, this is exceptional, and relief is usually sought and obtained within a few weeks or months from the time of the injury.

The difficulty of returning the organ to its normal position is sometimes very great, and we may all draw courage from the fact that the most eminent men in American gynæcology have devoted hours at a time, and sometimes performed repeated operations before finally succeeding.

The methods of reduction usually resorted to may be briefly sketched here. By the first, the patient being etherized and placed upon her back with her legs drawn up, the uterus is grasped by the hand with the fingers extended, and lateral compression is exercised upon the organ, the vagina being first placed upon the stretch. By applying steady and continued pressure the uterus is thus pushed upward and backward, the part last inverted being first reduced. In the second or so-called "dimpling" process, by pressure upon the most dependent part of the fundus, the portion of the uterus first inverted is first pushed up. A third process, which may be termed a modification of the second, is suggested by Dr. Noeggerath, namely to apply pressure to each cornu of the uterus, and so effect reduction in that way. In cases of long standing it may even be necessary to open the abdominal cavity and distend the cervix before replacement is possible. Various modifications of the above measures may be required in special cases, to which no allusion is necessary in a paper of this character. I desire to refer to a most interesting and instructive article on this subject in the *American Journal of Obstetrics*,* by Dr. Thomas, of New York, and to the writings of Drs. Emmet, Wooster, and others on the same.

Dr. Thomas's differential diagnosis between complete inversion and fibroid polypi is so clear and conclusive that I take the liberty of quoting it here in full:—

If it be a polypus,—(1.) The probe will pass by its side into the uterus. (2.) Conjoined manipulation will reveal the uterine body. (3.) Rectal touch will reveal the uterus. (4) Recto-vesical exploration will reveal the uterus. (5.) The pedicle will usually be small. If it be inversion,—(1.) The probe and finger will be arrested at the neck. (2.) Conjoined manipulation will reveal the ring where the body should be. (3.) Rectal touch will not discover the uterus. (4.) Recto-vesical exploration will not discover the uterus. (5.) The pedicle will be large.

The following case illustrates some of the most frequent symptoms resulting from inversion;—Mrs. H., aged twenty-five years, American, in good health until present illness; married three years, and mother of two children. Nursed first child until it was thirteen months old. Second child was born May 7, 1876. Labour of only three hours' duration terminated naturally. During labour she took ergot, and was urged to make undue exertion by the attending physician. The child was very large. Delivery of the placenta followed in a few minutes and was not hastened by traction on the cord or by introduction of the hand into the vagina. Is not aware of suffering any severe shock at the time. Continued to feel weak during seven days, and at the end of that time noticed that "her womb came down" while straining at stool, appearing outside of vulva. She "put it back" herself and sent for her physician. He, it appears, did not recognize the nature of the difficulty. She had retention of the urine for the week following. Two weeks later the uterus again appeared externally. She remained in bed for two weeks after the birth of her child and was up at the time of the second prolapse. Hæmorrhage constant from the time of delivery until visited by me eleven weeks afterwards, and she had been confined to her bed, except at short intervals, during the whole period. So far, the patient's statement. Her physician considered the case to be one of polypus of unusual character, and postponed operative measures until her health improved.

When first seen she was very much enfeebled by loss of blood and complained of a feeling of weight and dragging about the back and loins. Vaginal examination revealed a tumor filling the vagina and appearing just inside the vulva, somewhat pyramidal in shape, of firm consistence, white color, and having much the appearance of a fibroid. It did not, however, have the stony hardness of the latter. The finger passed high up could be swept around the cul-de-sac, and the diagnosis could be made with tolerable confidence. The rectum was distended by fæces, preventing a complete examination. Next day was appointed for attempting re-

* Volume iii., page 423.

duction. An interview with the former physician and some looking up of the subject impaired my confidence in the diagnosis, and began to make me fancy it might be a fibroid polypus. I suppose many of us experience similar doubts in cases where absolute certainty does not exist. Dr. Fitz kindly saw her with me next day, and the rectum having been thoroughly evacuated and a thorough examination made possible, a correct diagnosis was easily made.

The patient was etherized by Dr. W. A. Dunn, and having been placed upon her back the first method was followed. The uterus was grasped firmly by the hand, the vagina put upon the stretch and steady pressure was made obliquely upwards and backwards in the axis of the pelvis, lateral compression being made at the same time, with the end to reduce first the part of the uterus inverted last. After ten minutes' continuous effort without apparently effecting anything, my hand became fatigued and Dr. Fitz took hold. After the expiration of another ten minutes the organ began to diminish in size and to return to its normal position, so that when I again resumed the completion was a matter of only a few moments. There was none of the snap of spontaneous return mentioned in the books in this case; the fingers were not only obliged to follow the fundus and push it into place, but to remain in utero until the cervix began to contract. External manipulation hastened this, and within half an hour the organ was fairly contracted. There was very slight hæmorrhage during the operation, none of any consequence after. The patient was kept in bed for a week and then allowed to sit up. Nothing important occurred afterward; there was a lame back and a sense of soreness in the right iliac region, but no pain or leucorrhœa. There also remained for some time more or less vertigo, referable to excessive loss of blood, which time and tonic treatment wholly removed.—*Boston Medical Journal.*

## DEATH FROM CHLOROFORM AVERTED BY THE INHALATION OF NITRITE OF AMYL.

We have received from a physician, (*Brit. Med. Journal*), the following interesting report for publication. On the 29th instant, I was asked by a professional friend to administer chloroform to a patient of his, from whom he was about to remove a fatty tumour, situated in the left lumbar region. The patient in question was about forty-nine years of age, married, the mother of several children, of thin spare habit, but otherwise in good health. She was nervous, and apprehensive of the result, entreating me not to give her too much chloroform. Having previously examined the heart and found all the sounds normal, I gave her about two teaspoonfuls of brandy undiluted; and after waiting a few minutes, and placing her in the recumbent posture, I commenced the administration. The chloroform I used was Duncan and Flockhart's, upon the purity of which we can always depend. I poured a measured drachm upon a piece of lint, enveloped in a towel. I held it some little distance from her mouth and nose, and let her inhale slowly. My friend noted her pulse, whilst I carefully watched the respiration. The first dose did not produce any effect, and I then used another drachm, which soon caused a good deal of excitement, incoherent talking, and struggling—the patient striving several times to snatch the inhaler from my hand. This gradually subsided, and she appeared to be passing into the third stage of anæsthesia, when she made an abortive attempt to vomit, raised her head from the pillow, and, to my friend's great alarm, the pulse flickered and stopped altogether; she gave a gasp; foam gathered on her lips; her jaw became rigid; and to all appearance she was dead. I immediately withdrew the chloroform; my friend dashed some cold water on her face and pulled her tongue forward, whilst I commenced artificial respiration, after Marshal Hall's method, but without success. We then poured some nitrite of amyl on lint, and held it to her nostrils. In such emergencies, it is impossible to judge the flight of time correctly; but I should say in ten seconds there was a flushing of the face, the pulse was again felt, and, to our great joy, the all-important function of respiration was again restored; the woman being rescued apparently from the very article of death. After a time, the anæsthesia seeming tolerably profound, my friend proceeded to remove the tumour, which he did in a rapid and skilful manner, whilst, as the patient grew restless, I gave an occasional whiff of chloroform. It proved to be an ordinary fatty tumour. Only one small vessel required to be ligatured. The wound has since healed rapidly, and the patient has made a good recovery. In looking at the order of symptoms, I cannot help forming the opinion that, had it not been for the nitrite of amyl, this poor patient would assuredly have died. I have never seen, either in surgical or obstetrical practice, any one in such imminent peril. I am thankful to say I have never witnessed a case of death from chloroform; but, from the accounts published in the medical journals, both and my friend inferred that, in the present instance there was syncope arising from paralysis of the heart, and that this was met by the nitrite of amyl which, in accordance with its physiological effect, gave a direct fillip to the arrested circulation.

MILK TAVERNS.—The establishment of milk taverns is now strenuously advocated in many places, as supplementary to the temperance movement.

## TREATMENT OF FRACTURE OF THE PATELLA.

All who have had much experience in the treatment of transverse fracture of the patella must have found the different methods recommended in the text-books inefficient and unsatisfactory to both surgeon and patient. Having treated a considerable number of cases by the most approved appliances with no better results than those obtained by "position" alone, I had concluded to relieve my patients of the annoyance of straps, bandages, and the like, and myself of the trouble of applying them, and to trust to simple treatment by position.

Upon hearing good reports of the method recommended by Dr. Sanborn, of Lowell, I gave it a trial, but found that the twisted plaster over the patella caused pain and excoriation of the skin; that the plaster was drawn into a string for some distance above and below the patella, and that the skin was dragged into a great fold, while the fragments were but little if at all acted upon. To obviate these objections I modified the appliance as described below: a tinsmith was employed to bend a piece of No. 13 wire to the shape and to surround one side with a tin roller like that of a common harness buckle; to this was sewed one end of a strip of plaster two and one half inches wide and about a foot long; the plaster was then applied to the thigh, with the wire exactly over the upper extremity of the upper fragment. A similar strip of plaster was applied to the leg below the lower fragment, to which a strip of strong cotton cloth, about a yard long, had been sewed; a strip of plaster around the limb and splint, above and below the patella, served to secure the limb to the splint and to hold the ends of the other plasters down against the broken bone. The end of the cloth being passed around the pulley and drawn upon, the fragments were held together with the greatest ease and with comfort to the patient. The end of the strip of cloth was then split in two and tied around the end of the foot piece of the splint in a bow-knot. This was quite as efficient as a weight would be, and much more convenient. The smooth cloth, passing over the broken bone, caused no pain and prevented tilting; the circulation was not interfered with, and easy control over the fragments was maintained.

I have now treated three cases in this way, with excellent results and with comfort to the patients. It is important that the plaster should be of good quality.—*Dr. Galloupe in Moston Bcd. Journal.*

[The weight and pully might also be used with this contrivance.]—Ed.

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The British Parliament appropriates $10,000 a year to scientific investigations into the causes and processes of disease.

## POPLITEAL ANLURISM CURED BY THE APPLICATION OF ESMARCH'S BANDAGE FOR FIFTY MINUTES.

Michael M.——, aged thirty-six, a grocer, was admitted into Mr. Tyrrell's ward at the Mater Eisericordiæ, Dublin, on the 20th of April, with an aneurism of the left popliteal artery. He stated that up to the preceding March he had enjoyed good health, except for a short time in September, 1872. when he had a slight attack of rheumatism. He had been in America for a year, and while there was very intemperate.

On the 10th of March, when kneeling, he was seized with a most violent stinging pain in the back of his left knee. He stood up at once, and the pain ceased until he went to bed, when it returned with increased violence. The pain continued during the night, to disappear again in the morning. On examination he noticed a small hardish lump in his left arm, but did not feel it throbbing. For about a month after this he continued quite well, except for a dull pain in the left arm which attacked him on and off.

On the 8th of April, as he was returning home from a long walk, he was again attacked with a most violent racking pain, and the lump, which had up to this date been slowly increasing in size, now increased rapidly, and commenced to throb. He painted it with tincture of iodine, and rested for some days; but, not finding himself getting better, he sent for Dr. White. That gentleman, at once recognizing the nature of the disease, sent him to Mr. Tyrrell. There was no history of syphilis.

On examination, a large pulsating tumour was felt and seen in the left popliteal space, measuring five inches from above downwards, and five inches and a half from side to side. It was soft, and a slight bruit was audible with the stethoscope over it. The superficial veins of the leg were swollen, and the whole limb was slightly œdematous. Neither the anterior nor the posterior tibial arteries could be felt on the left side but were palpable on the right. The circumference of the left knee immediately above the patella was fourteen inches, on the right side twelve inches and a half; half an inch below the patella on left side fifteen inches, on the right side eleven inches. The tumour was principally in the inferior portion of the popliteal space. The heart sounds were normal. He required large doses of morphia to give ease from the violent pains, shooting from the toes to the hip, which came on at night. He was ordered to remain in bed, and to take immediately a full saline cathartic draught. He was put on a restricted meat diet, got very little to drink, and was allowed ice and oranges to allay his thirst. He had a subcutaneous injection of morphia at night.

On the 24th of April Mr. Tyrell applied Esmarch's bandage. Commencing at the toes, the bandage was wound tightly round the limb as high as the tumour, then lightly over it, and again up the thigh. The elastic tourniquet was also put on. The patient complained of considerable pain while the bandage remained on, but it was not so severe as to call for the use of an anæsthetic. Mr. Tyrrell allowed the bandage to remain on fifty minutes. On its removal all pain ceased. The tumour had sensibly diminished in size, was quite hard and globular, and had a very slight pulsation. Digital compression was kept up for two hours. When examined at the expiration of that time the tumour was found absolutely pulseless. As a matter of precaution a compressor was applied over the femoral artery at the pubes, and the patient was directed to keep it moderately tight. After the elastic bandage was taken off, the leg and thigh were enveloped in a flannel bandage and elevated on pillows.

On the 25th April, the patient, having slept all night, said he was free from pain, but complained of numbness in the toes and foot. The articular arteries around the knee could be both seen and felt to pulsate. In the evening pulsation was felt in the anterior tibial on the dorsum of the foot. The tumour felt very solid; no trace of pulsation. Next day the patient was better in every respect; the œdema of the leg was nearly gone, and sensation was normal in the foot. He slept well, and the tumour was apparently smaller. On May 1st the patient got up and dressed himself, and was anxious to be allowed to walk about, but Mr. Tyrrell would not allow this, as he thought it more prudent to rest the leg for some time longer. Ordered a pair of crutches. On May 2d the patient went home.—*Lancet*, June 30, 1877.

## RECOVERY FROM A WOUND PERFORATING THE STOMACH.

In the *Aerztliches Intelligenz-Blatt* for December 26, 1876, Dr. Brand, of Fussen, records the following case. He was sent for on the 22nd of July to see a boy, aged five years, who was said to have fallen down, and received a wound in the abdomen, from which something was hanging out. On arrival he found that the boy had fallen from a table to the floor with an earthen *pot de chambre*, and had cut himself with one of the pieces of the broken vessel. His father drew the broken piece from the wound. This was soon after supper, and his stomach must have been pretty full at the time. On examination, a somewhat jagged wound was found on the left side of the abdomen in the lower part of the epigastric region, one and a quarter inches from the median line. The wound itself was almost vertical, and about one and three-quarter inches long. Some great omentum protruded from it. The boy vomited whilst the necessary questions were asked, and part of the stomach, about the size of an apple—about two and three-quarter inches in diameter—was gradually forced out of the wound. In this there was a "solution of continuity" of three-fifths of an inch in length, which allowed food to escape from the stomach. During the vomiting, Dr. Brand kept up gentle pressure on the abdominal walls, then carefully cleansed the extruded part, ligatured a small spirting artery, united the stomach-wound—peritoneum to peritoneum—with a stitch, the end of which, with the ligatures, he brought out at the external wound. Two sutures, passing through the peritoneum, closed the external wound, after careful cleansing. Strips of plaster were also applied. The very patient little sufferer was much exhausted. His skin was cool; his pulse 108. He was put to bed, iced compresses applied to the wound, small doses of opium ordered, and ice to be sucked to relieve thirst. Next day his pulse was 92; temperature almost normal. He felt pretty comfortable. There was slight redness round the wound. In the next few days there was some abdominal tenderness, but not distension: and gradually, with very moderate febrile symptoms, a circumscribed abscess formed from which, after removal of the stitches, on the sixth day, a considerable quantity of good thick pus escaped. At the same time gentle traction removed the suture and ligature belonging to the stomach-wound. All bad symptoms vanished from this date, though some pus was discharged until the 9th of August, when the external wound cicatrized. On August 21st the boy was brought again with a swelling in the old site. Pressure caused a small quantity of pus and *a caraway seed* to escape from the distended cicatrix. Three days afterwards, the wound again healed. After a year, the boy was seen again in good health, not suffering the least from the accident, and it appeared that the stomach was firmly attached to the abdominal wall. The slight nature of the symptoms all through is very remarkable.—*London Medical Record.*

SALICINE FOR CHILLS.—Dr. Thompson reports, in *British Medical Journal*, a number of cases showing the superior efficacy of salicine in the treatment of intermittents. Cases wherein quinine had utterly failed were promptly relieved with this agent. He used large doses, grs. xxx every two hours. Usually the fourth dose was sufficient to break up the chain of morbid action, after which a few doses at regular intervals completed the cure. It may be given when the chill is on, and will usually shorten the chill, and greatly mitigate or even arrest the febrile exacerbation.

ABSCESS OF THE LIVER.—In the *Practitioner* for the current month, there is a good practical paper on this subject, by Sir J. Fayrer, K.C.S.I., M.D., in which the author draws attention to the insidious manner in which these abscesses are often developed. As a rule, the early symptoms of suppuration are those of congestion, with bulging of the side, either between or below the ribs, with chills or well marked rigors, high temperature and sweating; but sometimes none of these symptoms are well pronounced, and yet an abscess may have formed and escape detection until the bulging and fluctuation, or until the sudden evacuation of its contents through the bowels, the lung, or stomach, or into the peritoneum reveals the true state of matters. Several cases are quoted in illustration of the insidious invasion of this affection, while attention is also drawn to the fact, not so generally understood, that a man may have an abscess of the liver, which is not evacuated, and yet recover after its removal by absorption, or by its remaining in a state of quiescence for the remainder of his life.

With regard to the vexed question of the priority of hepatic abscess, or of dysentery, in those cases where these affections occur together, Sir J. Fayrer, is inclined to regard them as independent of each other, though often co-existent, and due to the same climatic causes.

As to the treatment of liver abscess, the author advises at the outset local depletion by leeches on the side, when the symptoms are acute, the pain great, and the fever high. Also free purgation by mercurials, salines, and ipecacuanha, with hot fomentations, rest, and a light diet. When it is obvious that pus is formed, the evacuation of the matter must be favoured by such channels as may seem most favourable. The strength must be supported, and irritation allayed; and when the abscess is sufficiently near the surface to justify exploration or puncture, it should be evacuated.—*Med. Press and Circular.*

## Reports of Societies.

### CANADA MEDICAL ASSOCIATION.

FIRST DAY'S PROCEEDINGS.

The tenth annual meeting of this Association was held on the 12th and 13th ult., in Montreal, the President, Dr. Hingston, in the chair. There was a large attendance from all parts of the Dominion. The following gentlemen were present as delegates from medical societies in the United States: Dr. Kimball, of Lowell, Mass., Dr. Wing, of Boston; Drs. Brodie and McDonald, Detroit, and Dr. Adams, and were invited among others to seats on the platform.

Dr. DAVID, the Secretary, read the minutes of the last annual meeting, which were approved.

A large number of new members were duly proposed, and admitted as members of the Association.

Letters of apology were read from absent members of the Association.

The President then read the annual address which showed deep research and a close acquaintance with the subjects treated upon.* After acknowledging tersely the compliment paid him in calling him to preside over the convention, he said, that much as had been done by the Association, since its formation in Quebec ten years ago, all the advantages hoped for by its founders had not yet been realized, although sufficient had been done to show every member that a greater degree of energy pervading and agitating the whole would have led to the achievement of a greater degree of success. Notwithstanding difficulties arising from social and geographical conditions, much good had been done. It had been the custom at the opening addresses before Societies in Europe—notably so in Great Britain—to take up some department of the healing art, or some master or explorer that had passed away; but in an association like that he addressed, limited time did not admit of discussing abstract questions of historic interest. Thus they were confined to those politic-medical questions which concerned them most. He denied the insinuation that the Association had no objects sufficient for the existence worthy the labor, expense and time of meeting together, insisting that this was the opinion of the ill-informed, who failed to perceive its advantages. Alluding to the growth of the Medical Association of our "American cousins," he (Dr. Hingston) said that although now after an existence of only thirty years found to be almost too large for practical purposes, the society must be admitted to have accomplished an amount of good not to be achieved by any other means. It had brought the medical profession of the United States into one body and encouraged the State institutions, thereby improving the tone in them. So with the association he addressed, which had existed for only one-third of that period. Legislation had imposed geographical boundaries and endeavored to make a fit practitioner of one Province disqualified in another. The association defied all efforts to fix limits as of a boundary, and rubbed out those unsightly enclosures. It was matter for gratification that the work of the session would be divided into sections—surgery and medicine—the other branches of the healing art to be

* The following extracts are taken chiefly from the Montreal *Gazette.*

subdivided in these sections. After alluding to matters of routine, he touched upon the question of legislation in the Province of Quebec, where three bills went in last session to satisfy three orders of mind, and came out as one bill, and in a shape that satisfied no order of mind. The Province of Ontario system—a central Examining Board—had been favorably pronounced upon by the medical press and profession of that Province. The Province of Quebec had no such system ; yet nothing short of it would satisfy those who looked only to the well-being of the profession and the community. The compulsion, requiring persons licensed in one part of the Dominion to procure license in another, seemed an anomaly ; it was one, however that could only be remedied by a parity of medical legislation in the several Provinces. Much more liberal was the action of the English College of Physicians in Great Britain, which had passed a by-law legalizing even foreign practitioners in England, and on certain conditions exempting them from re-examination. It appeared to him the duty of the Canadian Association to endeavor to obtain such legislation as would lead to a like generous action. It was useless to speak of medical legislation for the whole Dominion, but local legislation could easily introduce measures simultaneously so that a practitioner in one could be a practitioner in all the Provinces. This could be done by central examining boards and a uniform system. In drawing attention to the act as at present existing, he showed that by the manipulation of proxies one active man might control matters at any time for the whole Province, making practitioners in the country and towns, unknown to themselves, his instruments in so doing. Having called attention to the refusal of the British Board of Trade to recognize Canadian qualifications for emigrant and passenger ships, so recently before the public, he explained that although the Board of Trade had rescinded the order, it was nevertheless a law, to be used by the British authorities at any time. The diplomas were not recognized, but their holders were allowed to be employed. And how could Canadians ask for the recognition of their diplomas in Britain while they refused to do so in their own country. Alluding to the ungenerous act of a member of the profession in Ontario towards a surgeon of distinction from Detroit, he was certain that his associates in convention would allow him to interpret their views in assuring Dr. Jenks, and through him the members of the profession in the adjoining Union, of their honest offered courtesy, and of their continued desire for reciprocity in matters which even governments cannot control, and in which science and humanity demanded the most unfettered civility.

Coming from the question of the education and qualifications of a medical student before entering upon the practice of his profession, to the question, what should be his qualifications on entering our medical schools? he said the education he would advocate should give a delicate taste, a candid, equitable, dispassionate mind, a noble and courteous bearing in the conduct of life ; should open the mind, correct, refine, enable it to master, know and digest, rule and use its knowledge, and give it power over its own faculties, application, flexibility, method, critical exactness, sagacity, resource, address. With the intellect thus tutored, the student might enter into the study of that most difficult profession of which we are members and pursue with advantage a particular course of study that might issue in some definite and perhaps remunerative work. He shared not with those who advocated a low utilitarianism, but rather with those who think the student should be formed "not by a parsimonious admeasurement of studies to some definite future object, but by taking a wide and liberal compass and thinking a great deal on many subjects with a better end in view, perhaps, than because the exercise is one which made them more rational and intelligent beings." But this was not what had been thrust upon them recently in an ill-digested law regulating to their profession, in an important Province of this Dominion, where our colleges and seminaries of learning have been degraded from their position. The graduate in arts, the student who had completed his eight or nine years curriculum at any of our colleges should by that fact alone be qualified to enter upon the study of medicine. But no, our universities may grant degrees in arts, but the colleges and affiliated medical schools override them and subject the candidate to a new ordeal, from which he should be exempt. In the days of Samuel Johnston the physician was admitted to be the most cultivated and learned in any society. Could this be said to-day of many countries in the world—of Canada? There were cases, and notably Ireland, where the physician is still among the best educated gentlemen, and his social standard regulated accordingly. Dr. Stokes in a conversation had with him (Dr. Hingston) in 1867, explained this by saying : "Nearly all our graduates in medicine are graduates in arts. Of the last 98, all had degrees in arts." In some other countries the same condition of things obtains. Continuing on this theme, he discriminated in favor of a *liberal* as in contradistinction to a *crammed* education. They must be above their knowledge, not under it. It was with medicine as with politics. There were two classes of those—one versed in the science and art of government, and capable of an abstract view of the contentions of parties—the other a mere transcript or copy of the last editorial in the journal of his party, and unequal to methodically arranging or digesting facts. To which class should the guidance of the affairs of the country be entrusted? He could easily anticipate their answer. It was a question of far more moment than party which

physician was called to consider—the health and life of the people—and if the cultivation of the intellect was necessary when men were content to observe and base practice on observation, how much more necessary was it now when the most acute logical minds are sorely puzzled between what are scientific truths and bold and reckless assumptions? Here he remarked that this is unquestionably the age of bold, reckless—he had almost said impudent—assumption in matters of science. While it was generally conceded that "our ideas of the intrinsic elements that constitute beings in the physical as well as in the moral order are very limited and imperfect," they boldly assume the mutual dependence of things upon each other when we could logically establish nothing more than coexistence or succession, as if co existence or succession necessarily implies connection or relation. He quoted the writings of Huxley and Spencer in proof of his statement. Speaking of synthesis in medicine, he quoted past events and writings of Schenck, of Vienna, and later our own Erasmus Wilson, in support of it, saying that "the tyro in medicine has, or thinks he has, a half dozen remedies for every disease; but as experience is gained, he learns, and with advantage to his patients, to make a fewer number of remedies to suit a much greater number of disorders." He had always thought and the belief was strengthened with his years, that the work of grouping diseases for therapeutic purposes was yet to be done. He treated on the importance of state medicine which should investigate the air breathed, the water drank and all that pertains to our habits as communities—to protect the public health was the duty of state medicine. There could be no more important work than this. The work of educating communities, and States was to be done through the people, and to the physician fell the philanthropic though perhaps somewhat thankless task. The conviction was gaining ground that a Board of Health should be established for the Dominion, for the Provinces, and for the Municipalities,—one to each. He went into this question at considerable length, enforcing earnestly upon his hearers their duty and that of their successors in the education of public opinion to a better knowledge of the principles of health as the means for achieving a proper position for state medicine, and passing on, touched upon the union with the American Medical Association, quoted the original resolution passed at Niagara in 1875, alluding to the joint resolution of 1876, in Philadelphia, "That a union of the two Associations into one is desirable," &c., and praising the admirable manner in which Dr. Bowditch, of Boston, had performed his duty at Chicago in June of the present year, and his arguments pro and con, along with his final deduction against the union as inexpedient because of the impossibility in working machinery so unwieldy as that organization would necessarily be. He explained, however, that Canada never asked for union of the two bodies, that the proposition came from the Americans themselves in the first place. What the Canadians did ask for, was "a conference at some central point," so as to become "more intimately acquainted and discuss medical and surgical questions on a common basis." If the Canadian representatives at Philadelphia asked for a "union" of the Associations, they expressed their own views, and did not speak for the Canada Medical Association, which at Niagara in 1875 asked merely for a "medical conference," without either Association losing its identity. Here the questions connected with the birth-rate of countries was taken up. Before concluding his address, by special request he referred to the evil which was prevalent—more particularly in certain states of the adjoining Republic—amongst some classes of the community—the crime of fœticide. He dwelt upon it in its social, moral, legal, religious and scientific aspects, and condemned it in the most unmeasured terms.

The address occupied upwards of an hour in delivery, and was listened to with marked attention. A vote of thanks was moved by Hon. Dr. Parker, seconded by Dr. G. W. Campbell, and tendered to the president for his very able and interesting address.

Dr. Ross, chairman of the committee on "Medicine," read his annual address, and Dr. Howard, chairman of the committee of "Medical Education and Literature," also presented his report.

Dr. HOWARD, seconded by Dr. Bell, moved that the Convention resolve itself into two sections—Medicine and Surgery—to meet for business at two o'clock. Carried.

The President named Hon. Dr. Parker, and Dr. Canniff as chairmen of the respective sections.

Dr. GRANT moved, seconded by Dr. Gibson, that the following gentlemen be named a Committee on Nominations: Drs. Parker, Botsford, Canniff, Workman, Fulton, Sweetland, Fenwick, Osler, F. W. Campbell, Worthington, and Rottot. The meeting then adjourned for an hour.

The members met again at two o'clock, and divided into two sections—medical and surgical.

The following papers were read in the medical section:

Tricuspid Stenosis, by Dr. R. P. Howard, Montreal; treatment of empyema, by Dr. J. Fulton, Toronto; plea of insanity, by Dr. Hornibrook, Mitchell, O.; economical aspects of public sanitation, by Dr. Playter, Toronto.

The following papers were read in the surgical section:

Epithelioma of the eye, by Dr. Alt, Toronto; gastrotomy and ovariotomy, by Dr. Robillard, Montreal; nasal polypus, by Dr. Reeve, Toronto.

Discussion was had upon all the papers, but

want of space compels us to forego publishing any of the remarks.

In the evening the members of the Association and their ladies were entertained by the President, an "at home" having been given in their honor by Mrs. Hingston. It is needless to say that the evening was spent pleasantly.

SECOND DAY'S PROCEEDINGS.

The chair was taken by the President at 10 a. m. The minutes of the previous day's meeting were read and approved. Several new members were elected and took their seats.

It was moved by Dr. Fenwick, and seconded by Dr. Robillard that Sir John Rose, M.D., of Edinburgh, and Dr. Cormick, of Paris, be elected corresponding members. Carried.

Dr. THAYER gave notice that at the next meeting he would make a motion with regard to vaccination and the keeping of heifers from which to obtain pure vaccine for supplying the profession.

The Rt. Hon. Lyon Playfair, M.D., C.B., LL. D., M.P, for the University of Edinburgh, was introduced to the Association by Dr. Hingston, and was requested to take a seat on the platform.

The Rt. Hon. gentleman made a suitable acknowledgement of the honour paid him. Dr. Taylor, of Edinburgh, was also requested to take a seat on the platform.

Dr. FULTON then read the report of the Committee on "Therapeutics and New Remedies." Dr. Botsford next reported on the subject of "Climatology;" and Dr. Osler presented his report on "Necrology."

Dr. WORKMAN, at the request of the Association, read his paper on "Crime and Insanity," in general session. A short and interesting discussion followed the reading of this paper, at the close of which Dr. Hornibrook moved, seconded by Hon. Dr. Parker, "That in the opinion of this Association it is desirable in all criminal trials, when medical opinion suggests the probability of mental unsoundness, the accused should be placed under the supervision of experts for a sufficient time to enable them to determine whether he was insane or not at the time the crime was committed." Carried.

Dr. BOTSFORD moved, seconded by Dr, Reddy, that the thanks of the Association be given to Dr. Workman for his able paper.

Dr. HOWARD gave the following notice of motion: "That it is in the interest of justice that when ante-mortem examinations are to be made, experts familiar with such scientific work should be employed by the Crown when procurable."

The meeting then adjourned.

The meeting of the Sections commenced at 2 p.m.

The following papers were down for reading in the Medical Section:—Addison's Disease, by Dr. Ross; Acetate of lead in post partum and other hemorrhages, by Dr. Workman; Pernicious Anæmia, by Drs. Osler and Bell; Vital Statistics, by A. B. Laroque; Supposed Case of Gummy Tumor of the Brain, by Dr. Proudfoot.

In the Surgical Section, the following papers were on the programme:—Optical Defects, by Dr. Reeve; Vesico-Vaginal Fistula, by Dr. Trenholme; Excision of the Knee, by Dr. Fenwick; Embolism of Central Artery of Retina, by Dr. Buller.

For want of time many of the above papers were not read but handed to the Committee on Publication, and will appear in the volume of Transactions.

The Association convened in General Session in the afternoon. Reports were received from the medical and surgical sections.

Hon. Dr. PARKER called attention to the increase of papers sent in, and the necessity for the session lasting three days instead of two.

A motion to that effect was carried.

Dr. OSLER then read the following report of the committee on nominations:

President, Dr. Workman, of Toronto; Secretary, Dr. David, Montreal; Treasurer, Dr. Robillard, of Montreal.

Vice-Presidents.—Dr. McDonald, of Hamilton; Dr. Worthington, of Sherbrooke, Que.; Dr. Cowie, Halifax, N. S.; Dr. McLaren, St. John, N.B.

Secretaries.—Dr. Sweetland, of Ottawa; Dr. W. Campbell, of Montreal; Dr. John Black, Halifax, N. S.; Dr. Atherton, of Fredericton.

Committees.—On Publication, re-appointed; Medicine, Drs. Mullin, of Hamilton, and Ross, Lamarche, of Montreal; on Surgery, Drs. Malloch, of Hamilton, Grassett, of Toronto, and Farrell, of Halifax; on Obstetrics, Drs. Rosebrugh, Hamilton, U. Ogden, of Toronto, and Trenholme, of Montreal. On Therapeutics—Drs. J. E. Kennedy, of Toronto, A. H. Kollmyer, of Montreal and Woodhill; on Necrology, Drs. Ridley, Hamilton, Lachapelle, of Montreal, and Burgess, of London; on Medical Education and Literature, Drs. Reddy, of Hamilton, Michaud, of Montmouraska, and Howard, of Montreal; on Climatology, Drs. Playter, of Toronto, Larocque, of Montreal, and Jennings, of Halifax.

Hamilton was chosen as the next place of meeting, on the second Wednesday in Sept., 1878.

Dr. MULLIN moved the following gentlemen the Committee of Arrangements, with power add to their number. Drs. Malloch, McDonald, Ridley, G. McKelcan and the mover, which was carried.

A report of the Auditing Committee showed receipts for the year to have been $221.33; disbursements, $195.68; balance in hand, $25.65.

It was decided to print the transactions of the Association at an early date, and a subscription was opened for that purpose.

Dr. BELL gave notice that at the next meeting

he would move to so amend the by-laws as to admit members of the profession in British Columbia, Manitoba, and Prince Edward Island.

Votes of thanks were tendered to the Windsor Hotel Company and Railway and Steamboat Companies, to the resident members of the profession; to the Committee of Arrangements; and to the retiring President; after which the meeting adjourned *sine die.*

In the evening the members of the association and friends were entertained at dinner at the City Club, by the Medical Profession of Montreal. Dr. Hingston occupied the chair. and Dr. F. W. Campbell the vice-chair—after full justice had been done to the good things provided, the usual loyal and standard toasts were proposed and responded to. Dr. Howard, in a very able speech, gave the toast of "Our Liberal Professions," which was responded to by Drs. Desjardins and Canniff. "Our Medical Schools," was replied to by Dr. Geo. Campbell, Lamarche, F. W. Campbell and Reeve. The Mayor of Montreal proposed "The Medical Association," responded to by Dr. Workman, the newly elected President. The Chairman then proposed the "Guests of the Evening," eliciting replies from the Right Hon. Dr. Playfair, Drs. Taylor, Brodie, of Detroit; Hon. Dr. Parker, and Dr. Grant. The "Press," was responded to by Drs. Fenwick, Campbell, Zimmerman, Bessy and Mullen, and the "Profession of Montreal," by Dr. Osler. A very pleasant evening was spent by those present.

A most interesting feature of the Association was the exhibition of scientific apparatus of various kinds. Dr. Wilkins exhibited Physiological apparatus, for use in the study of Practical Physiology and Histology, to which subjects he has devoted a great deal of attention, while his vivisections and demonstrations of the circulation in the mesentery and lungs of the frog, were most interesting. He also showed members present the use of the following instruments, and gave social interesting demonstrations. Sanderson's Kymograph for recording tracings of arterial pressure, and other tracings, by means of a canula in the carotid or crural artery of an animal, and connected with the kymograph, the influence of the vagus and other nerves on the circulation can be readily demonstrated. This apparatus has three axles for three different rates of speed.

Marey's Tambour and Lever, for demonstrating the influence of the vagus and other nerves on respiration, by means of a canula in the trachea of an animal, the canula being connected with the tambour by means of rubber tubing—the lever records tracings on the blackened cylinder of Sanderson's Kymograph.

Koenig's Diapason, used for marking minute intervals of time that elapses between the moment of irritation of a muscle and the moment it commences to contract in response to the irritation or stimulation. This instrument measures accurately the 1-200 part of a second. It is really an immense tuning fork which makes two hundred vibrations in a second; these vibrations are recorded by means of a fine piece of steel spring on a blackened cylinder, which revolves on the quickest axle of Sanderson's Kymograph.

Besides the above, various other instruments and apparatus were exhibited such as the Cardiograph, Bernard's knife for the productions of diabetes in the rabbit, by puncturing the floor of the fourth ventricle; Electrodes of various descriptions, moist chambers; Stricker's hot stage, apparatus for artificial respiration in animals, Bernard's dog holder, Czermack's rabbit holder, &c., &c.

Demonstrations under the microscope were shewn of the circulation of the blood in the mesentery of the frog, also the circulation in the lung of the frog; in both these cases the animals were under the influence of curare. The circulation of the lung of the frog is shown by making a slight opening in the thorax of the animal and then with a smallest-size catheter introduced into the larnyx of the animal, the lung is blown out beneath a stage specially made for that purpose.

Dr. Roddick exhibited Dr. Lister's antiseptic apparatus, including the most approved steam atomiser for projecting carbolic spray, the carbolized dressing, &c. He also communicated many new and interesting facts concerning surgical practice in Europe, explaining to the members, among other things the *modus operandi* of the *thermo-cautery*, of Paquelin, which he has imported. This certainly is a beautiful instrument and is destined to supersede electricity, as it is quite as certain in its action, cheaper and more portable than the latter.

During the convention the following houses exhibited very fine displays of new medicinal preparations manufactured by them:

Kenneth Campbell & Co., of Montreal, a firm well known to most of the profession for the reliability and elegance of their pharmaceutical preparations, exhibited a number of samples. Their display of elixirs, syrups and fluid extracts numbering over fifty, of their own manufacture showed to what perfection the art of pharmacy may be carried. Among these we must particularly commend their Elixir of pepsine, Elixir of beef with pepsine, so useful in cases of extreme prostration, as in wasting fevers and consumption. Their syrup of the Iodide of Iron and Quinine also deserves mention. While their sample of Norway Cod Liver Oil, collected and imported by them direct from the Norway coast, is equal to any preparation of this valuable and much used remedy that we have ever seen for purity and excellence.

The establishment of this firm being the largest dispensing house in Canada was an object of inter-

est to many strangers who found it well worthy of a visit, where they were shown all the latest improvements in the pharmaceutical art. At the branch establishment, Phillips' Square, (there being two establishments belonging to the firm) visitors had an opportunity of seeing the new wonder, "The Telephone," in constant use, the two establishments being connected by telegraph for the rapid transmission of messages, orders, and exchange of prescriptions. Among their specialties may be mentioned the new method of administering medicine by way of "wafer capsules," whereby the *most disagreeable medicines* may be readily swallowed by either adult or child.

Messrs. McKesson and Robbins, of New York, exhibited through the firm of Kenneth Campbell & &c., an assortment of 300 varieties of their gelatine coated pills, which are reliable and elegant preparations. These pills are of the spheroidal or capsule shape and it is claimed that in this form they are best adapted for swallowing and obviate the sickening sensation so universal in swallowing the round pill. This house has acquired a high reputation in the United States and Canada, for the reliability, elegance and purity of their preparations.

Messrs. John Wyeth & Bro., of Philadelphia, made a very large and interesting exhibit of very elegant new and useful preparations including the latest idea in pharmacy, namely compressed powders in pills. By this means powders are made to assume the form of small lozenges and are convenient for carriage and easy of administration. Under this form they exhibited pills of arsenic, salicylicacid, podophyllin, bismuth, opium, calomel, quinine, cinchonidia, morphia, phosphorus, pil. cath. co., &c., &c. Their preparations of dialyzed iron, lacto-phosphate of lime with cod-liver oil, elixir of beef iron and wine, syrups, medicated wines, &c., in great variety—displayed a high degree of excellence in the art of pharmacy. Their pharmaceutical preparations are excellently prepared with much skill. The usual nauseous taste of the drugs are greatly disguised and prescriptions which extemporaneously prepared would present an inelegant appearance, are rendered clear and pleasant to the taste, without detracting from their medicinal value, as evidenced in their elixir gentian and tincture of iron, bark, iron and bismuth, valerianate of ammonia, iron, quinine and strychnine, emulsion of cod-liver oil and lime, while the elixir of beef iron and wine is more agreeable to the stomach than beef tea.

The compressed powders or pills can be readily swallowed on account of their flattened shape. The bulk of the powder is considerably reduced by pressure, yet as neither moisture nor excipients are employed, the medicine disintegrates readily in most cases, the most prominent exceptions being the potassium chlorate and ammonium muriate which are purposely compressed with greater force as they are mostly employed for local effect upon the throat, and are convenient for singers and public speakers.

Messrs. W. H. Schieffelin & Co., of New York, made a very interesting exhibit of soluble pills. These pills are coated with a tasteless transparent soluble covering, readily melting away in the mouth. Among the list are pills of phosphorus, quinine, sulphur, morphine, pil. cath. co. and other standard pills. Preparations of remedies in soluble form is a triumph of no mean value in pharmacy.

All the preparations exhibited were of the most perfect character and deserve the attention of physicians in prescribing, for the more agreeable the form in which a medicine is administered, the better pleased will the patient be, and the greater the success of the practitioner.

We were very greatly pleased to observe the rivalry that now obtains between the better class of pharmaceutists in their determination to vie with each other in their endeavour to place at the disposal of the profession, medicines at once elegant, accurate and reliable and withal so palatable that any child or lady may take them without the slightest repugnance. This fact, in itself, will remove one of the great objections of the day to regular practitioners, for there can be no doubt but that the careless, crude, and to many, disgustingly disagreeable way in which so-called Allopathic remedies have been administered in the past has been a great source of weakness, which taken advantage of by Homeopathists has enabled its votaries to obtain a very large army of converts which they could never have gained had such preparations as those exhibited by the pharmaceutists above named been in general use by the profession.

We welcome this *new era* in pharmacy and thank our pharmaceutists for the displays made, shewing the care and interest taken to second the efforts of professional men by providing the best character possible in medicinal preparations.

The Galvano Faradic Manufacturing Co., New York, represented by Mr. Reid, exhibited some very powerful and elegantly made electric apparatus for medical use. The *medical use* of electricity is becoming better understood, and more frequently resorted to of late, and the perfect character of the instruments exhibited by the company leave no room to complain of want of adaptability in the matter of appliances. Their *Pifford Galvano-Cautery* is an elegant and very perfect instrument, in testimony of the practical value of which we can speak from actual observation, having seen it used in a case of *pain urethr. l carbuncle*, by Mr. Reid, while in Montreal in the presence of several eminent practitioners.

The Electro-Galvanic Truss is a new idea in construction exhibited by the patentee and

prietor, J. R. Alexander, M. D., who claims to have reached at a bound the *ultima thule* of perfection in his trusses. Time will give this its proper status as it has every thing else in the past.

Mr. Gross, of Montreal, exhibited a fine collection of surgical instruments and appliances.

We have thus been at considerable pains to give a full account of the general proceedings with a notice of the several very creditable and expensive exhibits made by large manufacturing establishments, some of these being valued at several thousand dollars, and we trust the attention of the profession being thus drawn to what they have missed by not being present will cause the next convention, in Hamilton, to be more numerously attended by members of the profession.

## Medical Items and News.

SINGULAR SOURCE OF LEAD POISONING. — A singular instance of lead poisoning, says the *Medical Times and Gazette*, is reported by Dr. Alford, Medical Officer of Health for Taunton, in his last annual report. The disease, as observed by him, was in most cases of a very marked character, the blue line on the gums, the colic, and other symptoms being unmistakable. The first cases that occurred were in an isolated farm-house. Repeated visits and analysis of water, preserves, etc., threw no light whatever on their origin, no lead being found. Then, in quick succession, a large number of fresh cases were reported in various houses, mo ly isolated, several of which were very severe. They had all in common, it appeared, sent their corn to be ground at the same mill. Dr. Alford accordingly visited and inspected the mill, and the origin of all the mischief was at once apparent. On having the millstone raised, he found the surface of each stone honeycombed with lead. The millstone being of a loose nature, large spaces had occurred, which of late, during the illness of the owner, had been filled up by pouring in quantities of molten lead. The first grinding of wheat after the "dressing" contained, no doubt, large quantities of the metal. Dr. Alford ordered the lead to be at once removed, but from what he heard this was by no means an uncommon method of repairing millstones. He considered it his duty, therefore, to report the matter fully, in order that the public might be made aware of a dangerous source of poisoning. There were about ten pounds of lead upon the surface of the millstone, and the cavaties were all filled up with the same metal.—(*Ex. Clinic.*)

Ustilago Maidis, by which is meant the smut or "Ergot," of Indian Corn, has been employed for the same purposes as ergot of rye, and with reputed success. Considerable attention is bestowed on it in some quarters.

BILIOUS ATTACKS.—Dr. Fothergill (in *Medical Times*) says the treatment of bilious attacks to which dark-complexioned persons of the biliary diathesis are most subject: Rarely do persons of other diathesis and fair persons suffer from those disturbances which may fairly be said to be connected with the presence of bile acids in excess; while as to those forms of biliary disturbance where the urine is laden with lithates, the condition Dr. Murchison calls lithæmia, persons of other diathesis seem equally liable to them, and they are found in fair and dark people alike. For those bilious attacks, then, which occur chiefly in those of the bilious diathesis nothing is so good as alkaline saline purgatives taken in some vegetable infusion immediately on getting out of bed in the morning. This should be washed down with some warm fluid which excites the peristaltic action of the bowels, and, if necessary, a vegetable laxative pill should be taken the night before. After a couple of liquid motions—the more copious the better—the bilious person feels pretty equal to the day's work before him. Rochelle salts with a little sulphate of magnesium in infusion of buchu forms a most excellent morning purge, in my experience. Sir Joseph Fayrer has found in his Indian experience sulphate of magnesium, with quinine or gentian, sufficient to produce two or three loose motions, an efficient measure in biliary congestion.—*Southern Med. Record.*

TREPHINING THE TYMPANUM WITH SUCCESS FOR DEAFNESS.—Dr. Bonnafont, the well-known aurist, has just published the particulars of the above case, which had excited much interest here at the time the operation was performed. He trephined the tympanum a year ago in a young girl of twenty, who was suffering from deafness, which nothing could remove. She could hear the ticking of a watch when applied to the skull. The tympanum was perforated by means of a special trocar, and an accompanying cannula, provided with small wings, which could be pushed out *ad libitum*, was left in the tympanum. Restoration of hearing took place instantly. Twenty days after, symptoms of inflammation, swelling, and abscess showed themselves; but as they were confined to the middle and external ear, and as there was no headache or fever, poulticing and injections were ordered, and the cannula was left in its place. A month afterward all these phenomena had disappeared, and the cannula fell out. It was then seen that the hole made by the trocar in the tympanum was perfect and unimpaired. The patient is now quite right and hears well. Dr. Bonnafont thinks that this is a great triumph in aural surgery, and that trephining of the tympanum will take the same rank and render the same service as removal of the cataract in eye surgery.—*Paris Letter to the Lancet*, July 28, 1877.—*The Clinic.*

CHANGES OF THE PUPILS IN CHLOROFORM NARCOSIS.—In the surgical clinic in Göttingen during the past winter, the changes in the pupils during the administration of chloroform were carefully observed in 122 cases. Previous to and during the stage of excitement, the pupils were, in most of the cases, of the usual width; in a few cases, just before the stage of complete insensibility, they were quite wide and sensitive of light. During the stage of complete insensibility they were closely contracted in 120 of the cases, and were absolutely immovable in 119. An instantaneous dilatation of the pupils in this stage was found to be a threatening symptom of chloroform poisoning. This occurred in two of the cases, in one of which the trouble seemed to be located in the heart, and in the other in the lungs; in both, life was restored by pulling forward the jaw and resorting to artificial respiration.

The following practical lesson has been deduced from these observations: When, during the stage of tolerance the pupils begin to dilate slowly, it is a sign that the patient is recovering from the narcosis, and more chloroform must be given: when, on the other hand, the pupils become suddenly widely dilated, the administration of chloroform must be at once stopped, and further trouble guarded against.—*Centralblatt for Chirurgie*, June 23d. (*Medical Record.*)

THE IMPORTANCE OF CINCHO-QUININE AS A REMEDY.—The Supervising General of the Marine Hospital Service has issued a circular letter to the medical officers of that branch of the Treasury in which he calls their attention to the extraordinary increase in the market price of sulphate of quinia, and at the same time alludes to the success attending the employment of the other alkaloids of the bark.

In the year 1866 the Madras Government appointed a Medical Commission to test the respective efficacy in the treatment of fevers of quinine, quinidine, cinchonine, and cinchonidine, and the remedial value of these four alkaloids as deduced from their experiments is shown by the following statement:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Quinidine, | ratio | of | failure | pr | 1000 | cases, | 6 |
| Cinchonidine, | " | " | " | " | " | " | 10 |
| Quinine, | " | " | " | " | " | " | 7 |
| Cinchonine, | " | " | " | " | " | " | 23 |

Cincho-quinine contains all these alkaloids, and the combination has proved more efficacious than any one alone; and the price of this article being less than one half the present price of sulphate of quinine, the physicians of this country are substituting it for the sulphate. The medical officers of the Government service should give this subject due consideration in preparing their requisitions for medical supplies.—*Washington, D. C., Daily Nation, August* 8, 1877.

A NEW METHOD OF CURING POPLITEAL ANEURISMS.—Dr. Martin Burke, of Bellevue Hospital, reports three cases of popliteal aneurism, that were cured by compression of the femoral artery by means of a conical bag filled with shot, which was suspended from a height in such a way that the apex of the cone pressed on the artery in Scarpa's triangle. In the first case pulsation in the aneurism ceased in eight days; in the second, in sixteen days; and in the third, in six days. The cure was slow in the second case, on account of the patient's neglect to keep the apparatus in place. During the treatment little or no pain or uneasiness was complained of in any of the cases.

The shot-bag was made of canvas, in the form of a flattened cone, the apex measuring one inch in diameter. A rounded piece of cork or India-rubber, one inch in thickness, was fitted accurately into the apex of the cone, and a long thin rod reaching down to and resting on the rubber or cork was then inserted and held in the middle of the cone while the shot was poured around it, until the bag weighed about twelve pounds. A piece of canvas, with a hole in the centre for the passage of the rod, was then stitched over the base of the bag, and a stout wire hook fastened to its centre. The bag was suspended to a pulley in the ceiling by means of a rope, with which it was connected by a piece of rubber tubing and a large-linked chain. The tubing made the apparatus elastic, and the chain enabled the Doctor to regulate most easily the amount of pressure employed.—*New York Medical Journal*, June, 1877.

GOUT SUCCESSFULLY TREATED BY SALICYLIC ACID. — Dr. Ruhe contributes to the *Deutsche Zeitschr. f. pr. Med.* the account of an exceedingly obstinate case of gout, which had resisted all other forms of treatment, but which was promptly relieved by the free administration of salicylic acid. About two and one-half drachms were given during the first twenty-four hours. By the third day the patient was entirely free from pain, and was again able to walk about. His appetite was rapidly regained, and at the time of the report, several months after treatment, no relapse had taken place.—*Allg. Med. Cent. Ztg.*, No. 64, 1877.

A PULSE OF TEN BEATS PER MINUTE is reported in the Paris *Gaz. Medicale.* The case was one of pernicious algid fever. After several hours at the stated rate, it rose to twenty-five, and continued from twenty to twenty-eight for three days. The patient died.

ESMARCH'S BANDAGE is already losing favor in amputation, owing to frequent excessive capillary hæmorrhage following its use. Surgeons are resuming the old tourniquet.

# THE CANADA LANCET.

**A Monthly Journal of Medical and Surgical Science**

Issued Promptly on the First of each Month.

*Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Advertisements inserted on the most liberal terms. All Letters and Communications to be addressed to the "Editor Canada Lancet," Toronto.*

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John N.B.; J. M. BALDWIN, 805 Broadway, New York, and BALLIERE TINDALL & COX, 20 King William street, Strand, London, England

TORONTO, OCT. 1, 1877.


## CANADA MEDICAL ASSOCIATION.

The Association held its tenth annual meeting at Montreal, on the 12th and 13th ult., and was presided over by Dr. Hingston, the worthy president, with his usual grace and ability. The meeting surpassed in success and general interest all that have preceded it. The attendance, although not large, made up in quality what it lacked in numbers, for seldom have we seen such an array of distinguished men assembled together, as on this occasion. The Gods seemed to have been propitious for the weather was *Elysian* itself, while from over these as were present the Right Hon. Dr. Lyon Playfair, C.B., and his fellow traveller, Dr. Taylor, of Edinburgh From the neighbouring Republic were such men as Kimball and Brodie, representatives of the American Medical Association, and from our own fair Dominion we had a goodly array of representative men. The President's Address, an epitome of which will be found in another column, was masterly and exhaustive. To follow him through the various subjects and lines of thought suggested would be a work of supererogation, but there is one or two points to which we desire to draw attention. First, his advocacy of a higher standard of general educational attainments before entering upon the study of the profession, preferring that all should be possessed of a degree in arts, if possible, was in the right direction. It has been too painfully noticeable among many medical students during the past, and among numbers of practitioners that their early training must have been either woefully misdirected or altogether neglected, and hence we have numbers of men in the profession to-day who, in everything aside from mere medical knowledge are as illiterate as ordinary mechanics, indeed, in general attainments many skilled artizans are infinitely their superiors, and yet we have known such men occupying professional chairs in teaching bodies. This ought not to be, and in a profession that is ranked as one of the *learned* professions there should be admitted no literary ignoramuses. A good preliminary training is the surest diciplinary preparation for the study of an exact science, besides affording a vast fund of useful collateral information which is of infinite value to a well instructed practitioner.

Another subject alluded to, viz., the prevention of offspring, is becoming a growing evil among some portions of society, even in Canada, as well as in the bordering States where the evil has assumed alarming proportions. The duties of motherhood are repugnant to many of the respectable (?) women of modern society,—and not alone among the unmarried unfortunates are these evils to be looked for—but also among the middle and upper classes, where too often the husband is quite as intent upon the evil course, out of considerations of false kindness towards the woman, as the woman is herself.

In other matters the address abounded with information and valuable suggestion, and altogether was quite in keeping with the author, the circumstances and the occasion.

In the Medical Section over which Hon, Dr. Parker so ably presided, several very interesting papers were read and discussed. The paper of Dr. Howard on "Tricuspid Stenosis." accompanied by the specimen preparation was most interesting, and the explanation following the discussion cast much light upon what to most practitioners is a very rare and little understood affection. Dr. Hornibrook's paper on the "Plea of Insanity," was thoughtful, clearly defined and interesting. Owing to the importance of the subject, and also as a mark of respect, Dr. Workman's paper on Crime and Insanity was reserved for reading in the general session. It was *the* paper of the Association, and deserves to be widely circulated not only in the medical but also in the popular press, from its valuable information and suggestions respecting the relations between crime and insanity. Its reading was followed by the passing of a resolution in regard to the "plea of insanity," brought forward by Dr. Hornibrook, and amended in the general session. It will be found in our report of proceedings. Dr. Ross's paper on "Addison's

Disease," with illustrations and specimens, excited a good deal of interest, and brought out several new and important facts concerning this rare disease.

The most interesting discussion took place in the Surgical Section, presided over by Dr. Canniff with his usual ability. In this section some of the papers on the programme, for want of time, could not be read; among others, one by Dr. Canniff on the "Treatment of Wounds." A letter was received from Dr. Rosebrugh expressing regret at not being able to be present to read his paper on "Ovariotomy." The paper by Dr. Alt, of Toronto, was brief, but of an unusual degree of interest. Dr. Reeve, of Toronto, was down on the programme for two very interesting and practical papers, one on "Optical Defects," and the other on "Nasal Polypus." Dr. Robillard's paper upon "Gastrotomy and Ovariotomy," in which he exhibited Pean's instruments, used in the operations of ovariotomy and hysterotomy, excited considerable interest and discussion, which brought out the fact that hysterotomy had been performed for the first time in Canada by Dr. Hingson, of Montreal, who frankly admitted, however, that in doing it, he was doing more than he had intended or expected to do. It appeared from the statements of Dr. Kimball the veteran ovariotomist of Lowell, U. S., that Pean not unfrequently commenced ovariotomy by *la petite operation*, but finished with *la grande operation*.

The criticisms on the different papers were sufficiently pungent in this section, but without taking from the interest or value of any, it must be admitted that the kind and sensible criticisms of Dr. Kimball were perhaps the most interesting feature. His voluntary criticisms were lengthy, but even after these were closed, he continued to reply to the questions of various members present. Dr. Kimball seems averse to the operation of hysterotomy, and advises its performance only when intense suffering, with the importunities of the patient and friends, would render it warrantable. Neither did he consider either ovariotomy or hysterotomy as operations to make the reputation of a surgeon, since recovery often follows where least expected, and *vice versa*, failure often attends where everything seemed to indicate a reasonable hope of recovery. The addresses, papers, criticisms and illustrations, were appropriate, pointed, pithy, and full of suggestion and instruction, while nothing could have exceeded the enthusiasm with which Dr. Lyon Playfair was received by the Association, or the pleasure and gratification felt by the members in listening to the very suggestive and eloquent address of one of whom they had read and heard so much. He was elected an Honorary Life Member. The public dinner was a grand entertainment, and was largely attended. Everything, in short, passed off in the most satisfactory manner and reflected much credit upon the committee of arrangements, and its active and obliging Secretary, Dr. Osler, of Montreal. We can hardly say, however, that we approve of splitting up the Association into two sections. It is rather premature. It makes the attendance in each section too small, and thus detracts from the interest which would arise from a more extended criticism of the papers read. When the Association numbers by hundreds, it will be time to think of these and other subdivisions.

## THE POISON IVY AND ITS REMEDIES

Poison ivy, *rhus toxicodendron*; poison vine or climbing ivy, *rhus radicans*; poison sumach or swamp sumach, *rhus vernix*; and poison elder or poison dogwood, *rhus venenata*; are all plants of the same family. Their juice, when applied to the skin, has the effect of producing inflammation and vesication; and the same poisonous property is possessed by a volatile principle which escapes from the plant itself, and produces, in certain persons, when they come into its vicinity, an exceedingly troublesome erysipelatous affection, particularly of the face. There is frequently itching and redness, a sense of burning, with tumefaction, vesication, and ultimate desquamation. The effects begin immediately after exposure and usually decline within a week.

The principle of treatment should be based upon the fact that the milky juices of these shrubs are neutralized and made harmless by alkaline washes, and these washes may be used as preventives as well as remedies. Our fore-fathers in the profession depended upon a light cooling regimen, with saline purgatives, and the local use of cold lead water. Experience has proven alkaline washes

be the most reliable remedies, such as a solution of pure carbonate of potassa, or salt of tartar. Carbonate of potash procured from cream of tartar, is preferable to that obtained from pearl-ash in these cases. It should be used of the strength of two ounces to eight ounces of water, and applied to the affected parts several times daily. Strong suds, made from soft or lye soap, white lye, ammonia water—two to three desert-spoonfuls to a a pint of water—or a little saleratus dissolved in water, are excellent washes. White lye is made by throwing two quarts of hardwood ashes into a pail of water, stirring and then allowing it to settle—the clear supernatant liquid is white lye.

When a person is exposed to the influence of these plants, which when bruised or cut, have the power of affecting some skins when several feet distant, although most persons require to touch the plant before it affects them, he should wet every part of the skin that is likely to be exposed or uncovered, with one or another of these washes, allowing the wash to dry upon the skin, by no means wiping it off. This plan is said to protect the skin from the poisonous influence of these plants. In the same manner, if one has been exposed, or fears he has, let him follow the same plan and allow the wash to dry upon the skin.

Where the skin has already become red and swollen, and there is itching and stinging, these lotions should be freely applied by means of cloths wet with them, allowing them to dry upon the skin. Keep the patient cool and quiet, let the diet be spare and cooling, and keep the bowels gently open. Where the skin is very extensively inflamed, and the applications are made too perseveringly, it may happen that metastisis to the bronchial mucous membrane may take place, and great oppression of breathing with urgent sense of suffocation be felt. In such cases the application of mustard over the lungs affords relief. As prevention is always better than cure, persons should shun the immediate neighborhood of these poisonous plants when practicable to do so.

## SMOKING ARSENIC IN PHTHISIS PULMONALIS.

It is a notable fact that many of our most important discoveries in medicine have been borrowed or developed from general proverbs or prevailing prejudices of the common people in some district or country. Thus was it with the discovery of vaccination. Sir Wm. Jenner merely deduced an important scientific truth from the vague notions and common prejudice of the dairy people of Gloucestershire, in England, who strenuously held that no one who had ever had sore fingers or hands from catching the cow-pox while milking, ever took the small-pox or could be inoculated. And this was very easily remarked, for this fell disease in those days ravaged and laid waste whole cities and districts of country, destroying its tens of thousands, without any check or relief being afforded from the physicians of the day. In like manner has it been with most of the important remedies of the now extensive materia medica, natives or common peasants in most instances affording the information which, being developed, has led to the discovery and classification of many invaluable agents for the relief of disease.

Following up this line of observation, we find the roving gypsies and horse jockeys of most countries giving arsenic as a remedy for broken wind and heaves in horses, and with astonishing success, improving the general condition of the animal, giving him a fine healthy skin and sleek coat, also removing the difficulty of breathing. The only difficulty with its use was, as they say, that once begun, it must be continued. In these cases it seems to act by stimulating the secretions generally, especially that of the skin, and improving the digestive function. This practice has been found common among the Arabs and wandering Tartars.

The northern Chinese use arsenic daily, mixed with their smoking tobacco. And according to M. Monteguy, formerly French Consul in China, tobacco free from arsenic is not sold among the northern Chinese. The Consul was assured by missionaries who had lived a long time among the natives, that the arsenic-smokers were stout fellows, with lungs like a blacksmith's bellows, and rosy as cherubs." The last statement brings to mind the fact that in Syria, Persia and Arabia, the use of arsenic is indulged in by ladies, desirous of beautifying the complexion and improving the general appearance. It is an ingredient in almost in every cosmetic of the eastern countries.

The publication of M. Monteguy's statements with respect to the Chinese arsenic-smokers, called

forth a letter from a Dr. Loudè, who announced that some years previous in a course of a discussion at the Academy of Medicine, Paris, on the agents to be employed to cure tubercular consumption. He told the assembled doctors that he had found but one successful means of combating the dreadful disease—that means, was the smoking of arsenic. He reaffirmed his commendation of the remedy. Trousseau, than whom few are more eminent, recommends the inhalation of arsenic, by means of cigarettes saturated in a solution containing from ʒss.—ʒj. to the ℥j. of arseniate of soda, in the treatment of phthisis pulmonalis. In weak states of the system, as in the course of phthisis where dropsy of the cellular tissue supervenes, arsenic is found beneficial in removing the anasarca, apparently acting as a tissue stimulant. While not forgetting the dangers of an over dose of thist remedy, we feel from personal observation of its beneficial effects in lung troubles, including phthisis with emaciation, especially bronchial phthisis, spasmodic asthma, bronchitis and catarrhal affections, when smoked in the form of the arsenious acid commingled with a just proportion of stramonium leaves and lobelia, with nitrate of potash to secure combustion, that it cannot be too highly recommended in the treatment of lung affections, when its administration can be regulated by a competent physician.

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CONTAGION OF TYPHOID. — At the close of a series of lectures on the laws of health, recently delivered in London by Dr. W. H. Corfield, Professor Tyndall made a few remarks upon the germs of disease. Referring to the action of decomposing animal matter in giving rise to disease, he said that for twenty years he had been in the habit of visiting the upper Alpine valleys, where, among the Swiss chalets, there was the most abominable decomposition constantly going on, and there were also exceedingly bad smells; but in that region such diseases as typhoid fever and small-pox were ordinarily entirely unknown. If, however, a person suffering from typhoid fever were to be taken there, the disease would spread like wildfire from the infected focus, and would run through the whole population. He agreed with the lecturer that the contagion of each of these diseases is unchangeable in its nature, since we never find the virus of one of them producing the other.

THERMOMETERS FIRST USED. - A correspondent sends us the following copy of an advertisement 77 years old, showing that to our grandsires the honor of introducing thermometrical aid in practice of medicine is fairly due, and not to the wiseacres of the present age, as generally believed. The following is a verbatim copy of a notice published in the *Medical and Physical Journal*, January 1800. MEDICAL THERMOMETERS.—Dr. Currie, in his excellent work on fever, having evinced the great benefit often derived from the affusion of cold water, practitioners in the army and navy, as well as physicians to public institutions, became desirous of availing themselves of the use of a remedy so cheap, pleasant and efficacious. For this purpose *it was necessary to ascertain the heat of the body* with a degree of precision, for which the hand of the practitioner can seldom be relied on; thermometers were therefore recommended, and we have at length obtained a specimen that appears perfectly satisfactory. The scale is attached to the tube and the whole instrument is contained in a cylindric case about five inches long, and a quarter of an inch in diameter; therefore sufficiently portable.

As the instrument is designed for the purpose of ascertaining the heat of the human body, its range is very limited in order to obtain the requisite sensibility; it extends from about 80° to 112°, and is so sensible that it will indicate the heat applied to it in less than ten seconds, and the scale may be read to a quarter of a degree. It will be scarcely necessary to caution our readers against immersing it in fluids of a temperature higher than 112°, as it might endanger the instrument.

Gentlemen in the country may be supplied with such thermometers as above described, or with those of more extensive scales, if desired, by Allen and Howard, Chemists, Plough Court, Lombard Street, at about 18 shillings each.

ETHER AS AN ANÆSTHETIC.—It cannot be too often repeated that ether is a much safer anæsthetic than chloroform. The danger of ether is from the side of respiration, that of chloroform from the heart, and this fact explains their relative safety and danger. In chloroform narcosis, the danger is much more sudden; ether gives warning. The former produces syncope, which is sudden and unexpected, the latter asphyxia, which is a slow process, and being plainly visible can be remedied at any moment by admitting air to the lungs.

AMERICAN PHARMACEUTICAL ASSOCIATION.—The 25th annual meeting of this Association, met at the City Hall, Toronto, on the 3rd ult., Mr. Chas. Bullock, President, in the chair.

Several of the manufacturing chemists exhibited their preparations in the Temperance Hall. Powers & Weightman, of Philadelphia, made a most magnificent display of chemicals, covering 180 square feet, and valued at $11,000. Their table extended across the hall, and was flanked by a pyramid of sulphate of quinine weighing over 150 ounces at the one end, and by a pile of sulphate of morphia, weighing over 300 ounces, at the other. Wyeth & Bro., Philadelphia, make a specialty of compressed medicinal powders, (so-called pills) of the United States and British Pharmacopœia. These embrace the principal formulas in use for pills, and are compressed dry in lenticular shape, are porous, and hence disintegrate and dissolve readily. W. H. Schieffelin & Co., New York, showed a complete list of soluble coated pills, prepared according to the United States Pharmacopœia. McKesson & Robbins, New York, showed perfumery, chemicals, and alkaloids, but make a specialty of gelatine coated pills. Of these they make all the varieties of British and United States pharmacopœias. Wm. R. Warner & Co., Philadelphia, showed a large variety of sugar-coated pills, of soft substance and hard coating; also, fluid extracts, and a handsome druggists' shop bottle patented by themselves. Seabury & Johnson, New York, showed a large assortment of medicated, court, and surgeons' plasters. Canada was represented by Wm. Saunders, of London, Ont., who showed a fine lot of fluid extracts.

A conversationè was held in the Normal School in the evening, and was a pleasant affair. Mr. Saunders, of London, was chosen President for the ensuing year, and the place of meeting, Atlanta, Georgia, on the 3rd Tuesday of Sept., 1878.

BRANT COUNTY MEDICAL ASSOCIATION.—At the regular quarterly meeting of this Association held in the Kerby House, Brantford, Sept. 4th., the following gentlemen were elected officers for the ensuing year: Dr. Philip, *President;* Dr. Burt, *Vice-President;* Dr. Harris, *Secretary-Treasurer.*

TORONTO EYE AND EAR INFIRMARY.—Dr. Reeve has resigned his position as surgeon to this Institution.

A WELL DESERVED PUNISHMENT.—At the Court of Queen's Bench held at Sweetsburg recently, Sears, who made an outrageous assault on the liberty and person of Dr. Baigham, of Phillipsburg, Missisquoi, Que., was convicted of robbery. On the pretence of bringing the doctor to see a patient a number of miles away, Sears decoyed him in the middle of the night to his (Sears') house, and there attempted to force him to sign some papers under threats of murder. His Honour Judge Dunkin condemned the prisoner to ten years in the penitentiary for the crime.

HYOSCYAMIN IN INSANITY. — The use of this remedy in the treatment of the insane has been tried by Dr. DeWitt, Medical Superintendent of the Longview Asylum, Ohio, who speaks very highly of its value. He contrasts it with chloral and opium, and says that it has, in addition to the hypnotic effect, a curative action. It appears to be especially indicated in recurrent mania and melancholia with depression. He gives it in doses of one grain of the alkaloid.

DEATH.—It is our melancholy duty to record the death of another young and prominent member of the profession, J. D. Cline, B.A., M.D., house surgeon of the Montreal General Hospital. He was deservedly held in the highest estimation by the profession, and all who knew him. His death resulted from an attack of malignant diphtheria which is now prevalent in Montreal.

CAUSE OF DISEASE.—Sir Henry Thompson says: I have visited rich and poor, high and low, all my life, and I solemnly declare that the great bulk of the diseases with which I have had to deal arose from the drinking of intoxicating liquor. I do not mean what people call drunkenness, but the regular steady customs in which most of us indulge every day of our lives.

ARTIFICIAL EYES.—Between 8,000 and 10,000 artificial human eyes are sold annually in the United States. The average cost of an eye is $10, and the color for an eye most in demand is what is known as "Irish blue." Christian Hohn, a New York German, makes glass eyes for horses that will defy detection by all except accomplished experts.

BEWARE OF GAS.—The last number of the *Lancet* reports the death of a surgeon in Manchester who inhaled gas for the purpose of having teeth extracted. The patient insisted on having the gas given to produce its full effect. When the operation was completed it was found impossible to rouse him. The *post mortem* showed fatty degeneration and valvular disease of the heart.

APPOINTMENTS.—J. Mahaffy, M. D. of Clarksville, to be an Associate Coroner for the County of Simcoe. Dr. Wm. McNaughton Jones has been appointed Medical Superintendent of the British Columbia Insane Asylum. Dr. J. D. Bryant has been appointed lecturer on Anatomy in Bellevue Hospital Medical College, in place of Prof. A. B. Crosby, deceased. J. S. McCallum, M.D., of Smith's Falls, to be an Associate Coroner for the County of Lanark.

PERSONAL.—Dr. G. S. Ryerson, of Trinity Medical School has been appointed house surgeon of the Royal London Ophthalmic Hospital, Moorfields. He is also clinical assistant at the Central London Throat and Ear Hospital, Gray's Inn Road.

INTRODUCTORY LECTURES OF THE MEDICAL SCHOOLS.—The introductory Lecture of the Medical Faculty of McGill College, Montreal, was delivered by Prof. Osler; Bishop's College, by Prof. Kollmyer, and Trinity Medical College, Toronto, by Prof. Kennedy.

VITAL STATISTICS.—The number of births, deaths, and marriages registered in Toronto during the month of September, are as follows: births, 178; deaths, 162; marriages, 96.

## Books and Pamphlets.

AIKEN AS A HEALTH STATION, by W. H. Geddings, M.D., Aiken, S. C.: Walker, Evans & Cogswell.

SOME GENERAL IDEAS CONCERNING MEDICAL REFORM, by David Hunt, M.D.: Boston: A. Williams & Co.

EXCISION OF THE LOWER END OF THE RECTUM IN CASES OF CANCER, by John B. Roberts, M.D., Philadelphia: Sherman & Co.

CORPULENCE TREATED WITHOUT STARVATION, OR, HOW TO GET THIN, by M. M. Gri... M.D., Parsons, Luzerne County, Pa.

THE USE OF OBSTETRIC FORCEPS IN ABREVIAT... THE SECOND STAGE OF LABOR, by Edward Dunster, M.D., Ann Arbor Medical College.

PATHOLOGY AND TREATMENT OF SPRAINS; Richard O. Cowling, A.M., MD., Prof. of O... ative Surgery, University of Louisville: ... P. Morton & Co.

ON THE USE OF LARGE PROBES IN THE TR... MENT OF STRICTURES OF THE NASAL D... by Samuel Theobald, M.D., Baltimore Eye ... Ear Dispensary; Faculty of Maryland, 187...

THE MEDICAL INTELIGENCER, containing a... of new books, and a classified list of other wo... Also a condensed classified list for the poc... (Free.) Philadelphia: Lindsay & Blakiston...

PRACTICAL HINTS ON THE SELECTION AND ... TO USE THE MICROSCOPE, for beginners; John Phin, Editor of the American Journa... Microscopy. Second edition, illustrated ... enlarged. New York: Industrial Publica... Co.

This is a small but very useful and prac... book, wholly intended for beginners. It giv... full description of the various parts of the mi... scope and their uses, together with informatio... regard to the preparation and mounting of sp... mens, dry and moist. The work is an almost ... dispensable accompaniment of the microsco... and should be in the hands of all who are co... mencing their microscopical studies.

## Births, Marriages and Deaths.

In Toronto on the 8th ult., the wife of Dr. J. Burns, of a son.

In Toronto on the 9th ult., the wife of Dr. ... T. Fisher, of a daughter.

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At Embro, Fitzgerald Sutherland, M. D. ... Norwich, to Jean eldest daughter of D. Mathe... Esq.

On the 18th ult.., by the Rev. G. G. McRo... of Tilsonburgh, (brother-in-law of the bride) ... H. Newton, M. D., to Helen, fifth daughte... Robert Thomson, Esq., Port Stanley.

* *The charge for notice of Births, Marriages and De... is fifty cents, which should be forwarded in postage ... with the communication.*