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THE

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Original Addresses.

PRESIDENT'S ADDRESS.

Delivered at the Annual Meeting of the Canadian Medical Association, held at Kingston, Ont., August, 1890.

By WILLIAM BAYARD, M.D., St. John, N.B.

GENTLEMEN,

My days are so far spent that honors do not possess the same charm for me that they did years ago. But let me say to you in all sincerity that I highly appreciate the honour you have conferred upon me by placing me in this chair, to preside over a body of gentlemen comprising between four and five thousand; for our doors are open to every educated and honourable medical man in the Dominion, and covering a district of thousands of square miles.

I accept it as a proof that you did not class me as one of the "fossils of the profession to be placed on the shelf and forgotten." I did not expect it. I feel that I did not deserve it, for circumstances have prevented my attendance at your meetings for many years. But while not with you in person I was with you in spirit, believing, as I do, that associations such as this, tend to educate both the head and the heart; the stimulus of mind upon mind producing a kind of intellectual contagion. Our mutual criticisms and discussion form at once a school and an ordeal, teaching us to be more careful in our classification of the phenomena occurring in our practice, and more correct in our deductions from them. And we are justified in assuming that the great progress made in the healing art during the present century may be largely attributed to the stimulating influence of medical associations.

Our social meetings with the consequent interchange of friendly hand-clasping, tend to create a brotherly love among us. And may that brotherly love ripen and produce a spirit of unanimity and combination by which we can alone obtain that influence which means

power—individually we may possess some—collectively it is small indeed. We are classed as one of the three learned professions, Divinity, Law and Medicine, but we are placed at the foot of the list. I claim that we should stand second. What aim can be higher than the cure of disease and the relief of suffering? Our portals are guarded by more numerous and stricter examinations than all others. We are trusted by all classes. An eloquent writer has truly said: "Go into the abodes of the sick and the poor and the deserted wherever there is disease or distress, there you will find some medical practitioner exercising his glorious art patiently, freely and fearlessly for those whom poverty or vice, or the breath of pestilence, has deprived of every other friend. Or again follow him among the higher class of patients and you will there find him the friend, and honest adviser of those who can seldom hear truth from any other lips."

As Oliver Wendell Holmes aptly puts it: "Hour after hour the "busy day has found the good physician on his lonely round, mansion "and hovel, low and lofty door, he knows his journey, every path "explore."

Its members perform more gratuitous work than those of all other professions combined. It is true the appeals of suffering humanity should be obeyed. But they are given so long and so freely, that the State and the public demand it as a right. Now the question may be asked, is it right or is it just that the State and the public should allow the medical profession to do their medical charity, particularly when it receives such scant recognition at the hands of either? It may be safely claimed that the remuneration paid by the State to any of its medical officers would not equal that paid to a third rate lawyer.

It is estimated that in London one in every two persons receives charitable medical relief at the out-patient department of the hospitals, and that 50 per cent. of those receiving this charity are able to pay for advice and medicine. This statement is corroborated by the fact that there are nearly 80,000 daily occupied beds with a proportionate number of out-patients. This great and laborious work is freely given, "asking no reward save Heaven's 'well done.'" Yet their employers, like the "horse-leech," continually demand more. While the members of the profession should be proud and glad to minister to the sufferings of the deserving poor, they should call a halt, except when the institution is supported by voluntary subscription; by so doing they give their quota, a large one it is true, towards its support. But when the hospital is State-supported, endowed, or becomes a commercial undertaking by receiving pay patients, they

should be paid like members of other professions for services performed. The State has no claim upon them, and it is quite certain that the tax collector does not forget them. It is claimed that it is an honour to be on the medical staff—so it is ; it is an honour to be a Bishop, a Judge or a Recorder, but they are paid all the same. It is also claimed that they are learning. It is hoped that we are all learning daily, but we are more often found teaching.

They should demand and receive more consideration at the hands of hospital-governing authorities, who too often treat them as servants rather than a body ef gentlemen performing a gratuitous work, without which the hospital could not exist for a day. It is not long since a noble lord—a governor of a London hospital—proposed a resolution requiring the medical staff to be in their places between the hours of 6 and 9 o'clock in the evening to give advice to those outpatients who could not leave their work in the day time. Good sense prevailed and the resolution did not pass. Recently the trustees of a cottage hospital in the Province of New Brunswick, who had the power of appointing their *confrères*, persistently refused to have a medical man on their board—the staff very properly resigned, when the trustees were compelled to yield. Indeed every properly organized board should have one or more medical men upon it. Who can know the requirements of a hospital so well ? And it may be asked upon what principle should they ever be excluded.

Hospitals are established for the sick poor, but in the present day these are much abused by the attendance of individuals as outpatients seeking advice and medicine who are able to pay, and who would resent being classed as paupers, and who would not dare to ask equal gratuities from any other source. This is cheap charity on the part of the State and those supporting the hospital ; it has a demoralizing influence upon the recipient, and is injurious to the young practitioner, who is thereby deprived of his small fees from persons able to pay them.

The philanthropic work of our profession does not cease with its hospital duties. Knowing that a large proportion of the morality of the human race is caused by diseases that are preventable, its members have persistently kept this fact before the public mind, until now it may be claimed that the cloud of ignorance and prejudice that overshadowed the progress of sanitation has in a great measure disappeared, and the masses are forced to believe that health may be preserved, disease averted, and life prolonged by the observance of known sanitary laws. These laws often impose onerous duties upon medical men and certainly tend to lessen their fees, inasmuch as they prevent

sickness, but they perform them for the love they bear their fellow-man. Here again they may be proud of their work when they reflect that preventive medicine has decreased the general mortality in England since 1755 from 35.5 per 1,000 to 17.85; enteric fever since 1840 from 0.39 per 1,000 to 0.17; smallpox since 1840 from 52.2 per 1,000,000 to 6.5; scarlet fever since 1850 from 97 per 1,000,000 to 17; that of consumption 3¼ per cent. The death rate of the British navy in India has been reduced from 69 per 1,000 to 14.84. The span of individual life has increased, in 1852 it was for women 41.9 years, for men 39.9; now it is for women 44.66, and for men 41.35. It has been estimated that sanitary measures save the lives of 70,860 persons yearly in Great Britain. Much yet remains to be done. Sir Joseph Fayrer informs us that about 125,000 persons die yearly in Great Britain from preventable disease—the consequent sickness causing that number of deaths would mean 78¼ millions of days' worth lost, with a money value of £7,750,000. To prevent disease its cause should be known, and it is impossible to exaggerate the value of the scientific researches which have led to the antiseptic methods of preventing the morbification of micro-organic life. The search-light of science is penetrating the inmost secrets of nature and opening out sources from which may float results of incalculable importance in their bearing upon life and health. Therefore it may be safely asserted that no city, town or municipality can be properly governed without a board of health and that no board of health can be efficient without the support and co-operation of the medical profession. We have ample sanitary laws, but they cannot be enforced without money, and while authorities make appropriations with a free hand for improving the breed of cattle, for competing railroads, and for extravagant school-houses, they dole out grudgingly the minutest pittance for preventive medicine. I think I am safe in asserting that the Provinces in this Dominion do not spend the half of one cent a year per capita for that purpose. This incongruous state of affairs will continue to exist until a wave of popular protest is set in motion proclaiming to our legislators in unmistakable tones the ancient maxim, *Salus populi suprema est lex.* It is quite certain that the knowledge we possess of sanitation is in advance of its practical application. Let us take that dread disease diphtheria as an example. Until recently we were unable accurately to differentiate the true disease from other pseudo-membranous anginas. Now, by the aid of bacterial cultures, with subsequent microscopical observation, we can form a positive diagnosis. When we find the Klebbs-Lœffler bacillus we know that we have the true disease to deal with. This bacillus is found in about

half the cases formerly classed as diphtheria. It is not found in other anginas, but various other cocci are present. The fact that the Klebbs-Lœffler or contagious bacillus has often been found in the throat secretions weeks after the patient was supposed to be well renders it imperative that a bacteriological examination should be made in every case before he is released from quarantine. Doubtless the neglect of this precaution is largely the cause of the spread of the disease in the schools. It is no disparagement to say that few medical men in active practice possess the time, the appliances, or the technical knowledge to make this investigation. Hence the Government should appoint and pay pathological experts for that purpose. The State pays for the administration of its laws, surely the preservation of health and the saving of life have an equal claim. It is unquestionably the duty of the State to use all legitimate means to prevent the spread of contagious diseases, and when those in authority turn a deaf ear to the recommendations of their various boards of health they assume a heavy responsibility.

There are upwards of 4,000 children in St. John who have not been vaccinated. The Government can under the act order compulsory vaccination in any town or district. Two years ago the Provincial Board of Health urged upon the Government the propriety of making the order. Nothing has been or probably will be done until we have a smallpox scare. In January last the same board recommended the appointment of pathological experts—as great bodies move slowly the recommendation may yet produce fruit. Every medical man should have the privilege of sending some of the excretion or membrane from the throat of the suspected case, in a sterilized tube, to the expert, who should pronounce upon it as soon as practicable. This delay need not interfere with the treatment, but it would settle the question of isolation and quarantine.

The expert should make medical jurisprudence and toxicology his special study to enable him to conduct post-mortem examination, test for poisons, enlighten the court and jury in cases of suspected murder. Such an officer would, I think, tend to raise the standard of medical evidence in the law courts by keeping from the witness-box men who too often enter it without having studied the subject upon which they are to be examined—a desideratum much required. The motto of the general practitioner, *Semper paratus*, applies with force to this branch of his profession, for whether he resides in the town or country he cannot escape the risk of being called upon to give evidence. He may argue that a little time will be afforded him to look over his books, but let me assure him that a hurried glance at them—unless he

has previously made medical jurisprudence his study—will not protect him from embarrassment in the witness-box. I have seen such exhibitions as tend to degrade our profession in the eyes of the court. For, believe me, the profession as a body is more or less judged by the shortcomings of the individual members.

Medical men are too often found ranged on opposite sides called for the purpose of contradicting each other—a degrading position, and one that should be avoided as much as possible. The attorney calls upon him, reports the case from his own stand point; the medical man forms and gives a hurried opinion, based, perhaps, on partial information;—it suits the ideas or interest of the attorney who books him as a witness, and when on the stand he finds himself led by subtle questioning to make unguarded statements, which upon mature reflection and further information he would wish unsaid. Another medical man is called, who having made himself master of the subject, in the interest of truth and justice, finds himself in the unpleasant position of being compelled to expose errors of opinion. Hence doctors get the credit of differing when no difference of opinion should exist. This difference of opinion, too often places upon the court and jury who are not educated upon medical subjects the responsibility of deciding who is right and who is wrong. Here the evidence of the expert would largely assist in arriving at a proper conclusion.

In this connection, let me say a few words upon the subject of prosecutions for malpractice. Many years ago I suggested that a committee of five medical men of standing be appointed in each province, to whom all cases of threatened prosecution for malpractice be referred by the accused.

If this committee reports favourably, let him defend it, if adversely, let him make the best compromise he can. I also suggested that in such cases he should in a measure be tried by his peers. In other words, one or more medical men should be on the jury. I think if this could be accomplished, it would lessen litigation and advance the cause of justice. For often we see verdicts given for want of proper knowledge, devoid of reason and common sense.

When I last had the honour of addressing you, I alluded to the injurious effects of the high pressure system of education upon the rising generation, particularly upon those who are to become the mothers of our future race; my remarks met with adverse criticism from some of the editors of our local newspapers, displaying the erudition we should look for from such a source. I have nothing to detract from that which I then said, but would supplement an earnest

recommendation to the governing bodies of our schools to appoint medical men whose duties shall be to advise regarding the healthiness of the schoolrooms—the duration of the hours of study and physical exercise—to classify the children according to their physical or mental ability for study—to point out the correct position when writing—to see that all are properly vaccinated—to detect incipient cases of chorea-defect in vision and contagious diseases, and examine and remedy the defects in the teeth of the children. In fact to protect the health of the scholars. For while education is a great boon, it should not be forced at the sacrifice of health. As Lord Beaconsfield has wisely said, : "The public health is the foundation on which repose the happiness of the people and the power of a nation."'

It will not be disputed that the location of a schoolhouse, its sewerage, its ventilation and heating, and the cubic floor space allotted to each child, are subjects of vital importance, and observation teaches us that they receive scant consideration. It may be asked who can classify the children according to their ability for study and apportion the exercise suited to each so well as one who has made physiology and psychology a study ? A child enters school having been well fed and full of bodily and mental vigor, another of the same age, poorly fed and weak in body and mind ; both are placed in the same class, the one learns his lesson readily, while the other cannot do so ; he plods over it at home, dreams of it, returns in the morning jaded and worried ; this continues, and ultimately his health breaks down because he is forced beyond his ability. It is notorious that many children, particularly girls, leave school with lateral curvature of the spine, and it is claimed by those who have studied that the position assumed when writing a sloping or slanting hand is largely the cause. The following directions support this claim : Turn your left side to the desk, press the left arm close to the side, place your left hand on the copy book, press your right elbow to your side, point your pen towards your right ear, grasp the pen firmly and write. A better position could not be devised to distort the muscles of the body, the spinal column and the eye. Vertical writing, with the spinal column in its natural position, and the muscles of the body and eye unrestrained, is the common sense remedy. None but a medical man can give a safe opinion as to the quality of vaccination, incipient disease of the eye, or upon the contagious character of an ailment. Another trouble connected with the hygiene of school life may be named St. Vitus dance, a disease frequently caused by mental strain, advancing insidiously, preceded by restlessness, irritability of temper which is too often attributed to carelessness, for which the

child is punished, with the result of aggravating the disease. Here the knowledge of the expert will apply.

Doubtless there are few in this room who have not at some period of their lives suffered from the pangs of tooth-ache; to them I appeal for sympathy for school children, but one in ten of whom are declared to possess normal or perfect dentures. It is claimed that a child cannot study while hungry; may it not be asked can he study when suffering from a jumping toothache? Sir J. Crichton Browne informs us that of 5,249 school children under 12 years of age examined, only 485 were found with normal or sound dentures; that only 25 per cent. of the teeth of infants at 5 years of age were found free from caries; and that in older mouths 10,000,000 of artificial teeth were annually used in England. The conditions in both countries being nearly similar, we may reasonably conclude that a proportionate amount of that disease exists in this country with its disastrous consequences, pain, imperfect mastication, indigestion, &c., &c. I shall not stop to discuss the causation or remedy for this trouble, but dealing with the fact, let me earnestly suggest that this society give an expression of opinion, recommending the authorities to institute a system of compulsory investigation of the teeth of school children and see to state-aided rectification of defects in them. In support of my contention let me quote Sir J. C. Browne, who says: "I contemplate that the dentists employed in this public service would be adequately remunerated for their labours, but the money would be well spent and would yield a splendid return in the increased comfort, contentment, health and vigour of our people. Rather than it should not be spent in so laudable and desirable an undertaking (and truly our school rates are already high) I would willingly see some curtailment of the curriculum which our board schools now offer. Nutrition, I have often said, comes before education. It is wasteful and even cruel to force education. It is wasteful and even cruel to force education on half-starved children, and teeth, I would now assert, come before talents. It is preposterous to confer shreds of showy accomplishments upon children who cannot chew their food, and sure I am that it would be for the ultimate welfare of the country (if so be that adequate tooth culture cannot be otherwise secured) even that the grand piano in some of our London Board Schools should give place, for the time, to the dentist's chair."

There is another subject upon which I wish to say a few words. I approach it with hesitation knowing it to be a contentious one, and one which has called forth the worst passions on the platform and in the pulpit. I allude to the abuse of alcoholic drinks. I believe

that there are none in this room who are not aware of the misery, degradation and death consequent upon the abuse, and I believe that all will hold up both hands in favour of any feasible scheme to abate the evil, assuming that it is the greatest one of the age, and that it calls loudly for remedial measures. What form those measures shall take, is a question that has seriously exercised the minds of statesmen, philanthropists, and the public, some claiming that coercive and restrictive measures will accomplish the end in view, while others declare that such measures will aggravate the evil. Both wishing to arrive at the same goal, in their enthusiasm, deliriously denounce those who differ from them. Denunciation is not argument, injuring as it does a good cause. The subject is of such vast moment that it should be discussed soberly, calmly, and with judgment, from a sanitary and moral standpoint. Statistics prove to us that the evil has become very much less than it was centuries ago, and our observation teaches us the truth of Herbert Spencer's remarks that for a long time past among the upper classes the drinking, which was once creditable, has been thought a disgrace." This is a large step in the right direction, but much remains to be accomplished.

Restrictive and coercive measures have been enacted from the first century—when the Roman Emperor, Domitian, issued an edict prohibiting vineyards in England—up to the present date; yet the results of intemperance are lamentable.

To apply a remedy the cause should be understood. It has been claimed, and I think justly, that the abuse of alcoholics originates in the beneficient instinct which prompts man to seek pleasure and to avoid pain. They will be used so long as they continue to be the best agents known to man to heighten his joys and to make him forget his woes, if only for the time; they will be abused until men have become convinced that they cause in the end more pain than pleasure; and who can educate them upon that point so well as the members of our profession?

There are four remedial measures that present themselves, namely, education, sanitation, local-option and prohibition. Let us appeal to man's brain and to his fears. Teach him the fact that the use of alcoholic drinks cannot when in health benefit him in any way; that the improper use of them is too often followed by the abuse; that they should never be taken without food; that should a craving for them exist, his only safety lies in total abstinence. Impress upon him that the highest attribute of a well-regulated mind is the power of self-control, and that the act of self-government is noble when exercised in the face of temptation—nothing without it—and he who

will not restrain an injurious appetite degrades himself to the level of the brute creation. The sensations of languor, debility and exhaustion consequent upon insanitary surroundings often drive men to the dram-shop. Improve his condition in that respect and you remove a large source of temptation.

The Gothenberg system, a form of local-option, commends itself to the rate-payers, inasmuch as the profits accruing from the public-sale of liquors is appropriated towards the payment of the debts of the municipality. It directs that the whole public-house traffic be transferred to a limited liability company, who shall undertake by their charter to conduct the business solely in the interests of temperance and morality and to pay to the town treasury the whole profit beyond the ordinary rate of interest on the paid-up capital. The capital required was £7,500 and the annual profits yielded £40,000. The population of Gothenburg in 1876 was about 65,000. The number of licenses issued by the new company was reduced from 119 to 56. Of these 13 were transferred to wine merchants for sale and use off the premises of wines and spirits of the higher order 10 were transferred to hotels, clubs, restaurants and cafés, 26 to public-houses and 7 to shops for sale and use on the premises. Bar business was prohibited from 6 p.m. on Saturday to 8 a.m. on Monday. This experiment appears to have worked well, for almost every town in Sweden has adopted it.

Regarding prohibition I have little to say, except that it was tried in the Garden of Eden and failed there. Prohibitory laws have repeatedly been placed on the statute books against the use of alcoholics and in no one instance have they produced the desired effect. Indeed, no law will or can be enforced so long as there is a large minority who disapprove of it and who do not feel that they are degrading themselves by evading it. Such a law would induce smuggling and illicit distillation. A trade in bad small still whiskey would spring up from our woods, and other stimulants and narcotics would be found to take their place.

Now what is to be done with the confirmed inebriate is the question. Argument is useless, the tears and entreaties of fond friends will not influence him; the finer qualities of his nature are destroyed; punishment has no terrors for him. Restraint is the only remedy. He is not in the strict sense of the term a lunatic, but practically he is one. The church looks upon him as a sinner, the State as a criminal, while the observing physician knows that he has lost his power of self-control, that he is ruining his health, shortening his life, squandering his

property, and that oftentimes in his delirium he commits acts of violence against those most dear to him. It may be said that the disease was caused by his own act—true, but that does not absolve the State from responsibility. Is he dangerous to himself and others? He certainly is—therefore he deserves the same care as an acknowledged lunatic.

The Dominion of Canada is in advance of all other States regarding its laws for inebriety. Each Province has its law under which the inebriate can be incarcerated, but no individual can be declared an inebriate in one Province and incarcerated in another—each Province is supposed to have an asylum of its own. All governments can not or will not furnish the means for one and the people are unwilling to be taxed for that purpose, claiming that the Dominion Government, receiving a large revenue from the manufacture and importation of the material causing the evil, should pay for the remedy. There is much justice in this contention. The Dominion Government should make an appropriation to each Province for that purpose, or endow one large one for the Dominion, so arranged as to supply the requirements of different classes of patients and with facilities for working at various trades. The profits from the work of the inebriate, after deducting a given amount for his board, to be paid for the support of his family. If such an institution were established it would have a restraining influence upon many, and doubtless a number would be sent from it with power to refrain.

Gentlemen, I shall weary you if I do not bring this desultory address to an end. My chief object has been to remind you of the philanthropic, gratuitous, and beneficial work of the members of our profession, to designate the position they hold as a body in the community, and to appeal for an improvement in that position.

It will not be disputed that they perform more gratuitous work than all other professions combined, that their unselfishness is proved by the the active part they have taken in the establishment of preventive medicine, that they have freely given to the world the benefit of any discovery they may have made, namely, vaccination, the application of the various anæsthetics, antiseptics, etc.—gifts which in their effects upon the well-being of mankind have never been equalled by any body of men—and that they devote their lives, regardless of the breath of pestilence, to suffering humanity.

It may be asked does the profession hold a position commensurate with this great work? Truth compels us to answer no. Is the fault with the State, the public, or the profession? It is apparent that the authorities did not show much appreciation for the work

when they relegated the monument to Jenner placed in Trafalgar Square to an obscure corner at the far end of the Serpentine to be admired by nurse-maids engaged in keeping children from falling into its stagnant water. No such indignity was offered to the memory of the man who originated the postage stamp system. It is well that the charm of the profession lies in the variety of its work, in the sympathy for the sick, and in the scientific interest in its pursuits, not in the shadowy prospects of honours. When one reflects that, he who can tickle the ears of poetry lovers with fine sentiments is created a lord, or a general commanding the bravest troops directing them against a semi-savage horde, himself keeping without the range of shot and shell, receives the thanks of parliament, is presented with a large donation in money, and is created a Lord or an Earl. While the honours conferred upon the members of our profession range from a Baronetcy to that of the lowest grade of Knighthood, and often below that of a politician, a teacher of music, a railroad manager and a play-actor. This is not flattering to the profession. It may be assumed that the honour is bestowed on account of some beneficial service performed by the recipient. And no reasoning mind will compare the service rendered by those named with the beneficent work of Jenner, who, it is claimed, has saved more lives than have been destroyed by gun-powder and the sword since the time of Marlborough ; Lister, who, by his antiseptic system, is said to have saved more lives than the wars of the 19th century have destroyed ; Simpson, who, by his application of anæsthetics, has annihilated the horrors of the operating table ; and Spencer Wells, who it is estimated by his establishment of the operation for ovariotomy has in England and America alone directly contributed more than 30,000 years of active life to woman.

This injustice is so marked that the profession should seek the cause and secure a remedy. It may be asked does not the cause in some measure rest with ourselves? Does such union and cohesion exist among us as should and I think would command influence? Do we support our confrere because he is such? I do not mean to imply that we should follow the dictum of the "noble statesman" whose monument is about to adorn this city, when he said, "he did not thank a man for supporting him when he was right, he wanted his support when he was wrong." I will not go quite so far as that, but I will say support him until you find him wrong. Indeed if we think little of each other the public will assuredly think less.

As we increase the standard of the profession, so its influence should be increased. We may close its portals to all but those who

are highly educated. This will not always guarantee rectitude of conduct. We have an admirable code of ethics, the tenets of which should be indelibly impressed upon the mind of every member, and when religiously observed. leaves little to be desired, but when ignored, all suffer from the degrading act of the delinquent.

A word about fees. I assume that each district has a code of fees, governed by custom or regulation. The competition is such, that some may be induced to give their services for less than the minimum rate. This would be a grave mistake, for by so doing they proclaim that their services are not worth much, and their patients will naturally take them at their own valuation. The same may be said of the club doctor, who makes a trade of his profession and a slave of himself for a consideration that would be refused by the cab driver who conveys him to his patient.

Let us suppose that some legislative enactment is wished for by the profession, this cannot be obtained without united action. I would suggest the propriety of having the subject discussed at the various medical societies and finally at this one, and when approved by the majority, each member should, regardless of his previous opinion, support the measure and exercise his individual influence towards its enactment. The profession has no recognized representation in the Dominion Parliament. Its members are more exposed to misrepresentation and attack than other professions. The medical councils have some powers of punishment but small ability to protect, and are slow to enforce discipline over those practitioners whose conduct brings discredit upon the profession leaving such members unnamed and unpunished.

The only remedy for this evil would be te grant power to the Councils to protect the profession. This failing, the profession should organize a "Medical Defence Union," such as is doing good work in England. Unjust and speculative prosecutions are often instituted against medical men for malpractice, by persons who have nothing to lose, the result is that the unfortunate defendant, innocent or guilty, is mulcted in costs. In some of the States in the Union adjoining us a law exists compelling the plaintiff to give security for costs. We should have a similar law for the Dominion. Indeed I wish our Councils had power to assess and collect a small sum from each member for such unjust prosecutions.

In conclusion, gentlemen, let me ask you to accept the foregoing remarks as an expression from one whose long and somewhat large experience has taught him the failings and the virtues of our noble profession, and whose earnest wish is to see its virtues made so apparent that the name "Doctor of Medicine" shall be synonymous with all that is good in man.

THE ADDRESS IN MEDICINE.

Delivered at the Annual Meeting of the Canadian Medical Association, held at Kingston, Ont., August, 1895.

By Edward Farrell, M.D., Halifax.

My first duty is to thank you most cordially for permitting me to take the place I occupy to-day. To give the address in Medicine, and at the same time to take the place of one so well qualified to fill it, is no easy task. Were it not for the earnest solicitation of your honoured president, my old friend Dr. Bayard, I would hesitate to take this post of honour among you.

The first thought that occurs to me is,—what grand strides the science of medicine has made in the last quarter of a century. When a traveller comes into a new country where the scenery is beautiful, he is charmed by the first sight of its beauty, and as he goes further on he is equally delighted with each new landscape that opens up to his sight; his mind does not dwell upon any one beautiful picture in his view, he is simply lost in admiration of all the scenes he witnesses, and fails to see the dominant magnificence in any part. So it is with the busy doctor in his daily round, he is so impressed with satisfaction and pleasure in the results of his work; for what can be more pleasant or satisfactory to an educated man with the soul of a gentleman than to have done good—to have brought health, vigour and useful life to his fellow-man. He is so impressed that he does not see in all its fulness the increased power that science is giving him day by day to produce the better results he is able to obtain. None of us have a full conception of the mighty work the science of medicine has accomplished in the past few years. How much our knowledge has increased! In how many things has certainty taken the place of doubt! So much that was hidden has been made plain to our view! How much more pride we should take to-day in the profession of medicine than we ever did before! In recognizing the great increase in our knowledge in the past quarter of a century, while we feel a thrill of pride at the results of the splendid work of these great scientists who have during this short time almost revolutionized the science of medicine, still we must not forget that their work would not have been possible but for the labours of those who preceded them. We naturally associate the great names of Pasteur and Koch with the inception of the discoveries in microscopic life and its influence upon diseased processes. These labourers have opened up to us an unseen world of life, microscopic germ-life, whose function it is to

influence the greater life of man for good or evil as to his physical existence. Still it does not detract from the genius of these great discoverers when we say that they only worked out and made manifest facts in the etiology of disease that were suspected by some observers and believed in by others many years before their names were known to the world.

There are two methods of investigation into the nature of disease which were carried out with much activity during the decade preceding the origin of the germ theory. I refer to clinical observation and the study of morbid anatomy. The labourers in these two great fields of research prepared the way for those who are now developing the newer fields of investigation. Close observation of disease at the bedside, carefully noting by eye, ear and touch the varying changes that accompany its progress, has been and is still a great factor in the growth of the science of medicine. And, again, to be able to observe the changes wrought by disease in an organ, in the *post-mortem* room, gives us positive knowledge. That which we believed, expected or conjectured at the bedside is made plain when the diseased organ or organs are under our eye and touch. It is to morbid anatomy that we owe our first positive and accurate knowledge of the nature of disease, and it soon became the groundwork of a rational system of therapeutics. Surrounded as we are to-day by the brilliancy of recent discovery in medicine, let us not forget to honour those great names of a preceding period who made clinical medicine and morbid anatomy their guide; and the student of medicine of to-day should be impressed with the idea that as the study of anatomy and physiology are the groundwork of the study of "life in health," so clinical work, combined with the study of morbid anatomy, will give him the only basis of an accurate knowledge of "life in disease." However, it is the addition to our knowledge, since we began to hear of the germ-theory, bacteria, sepsis and antisepsis, toxine and antitoxine, and sero-therapy, that has caused the rapid strides that have led up to the height we have now reached. What has been done, then, that has let so much light into the dark places of our knowledge? What is it that has so increased and made accurate what was already known of the true nature of many of the most severe diseases? Two new departments of science adjunct to medicine have arisen within that time which have both changed and supplemented our methods of study — bacteriology and experimental pathology. Since these methods of research have come to our aid we have discovered the cause of disease.

Previous to the advent of these sciences upon the field of action,

clinical observation and a study of morbid anatomy led to the belief that the contagious diseases especially were due to a special poison, but we were ignorant of its nature. We heard and read of the "materies morbi," the "zymotic influence," the "fever poison," and like expressions, which showed that the careful and trained investigators of previous years were able to deduce from observation of the phenomena of disease that a poison existed, but further than this they were unable to go. The belief that the zymotic diseases were caused by parasites was held by many students of pathology in the early part of the century. Henle not only held the belief, but proved clearly that living organisms must be the cause of disease. It remained for the science of bacteriology, with experiment by inoculation of disease upon the lower animals, to make that which was hidden from us before as plain as noonday! To know the cause of disease! How can we estimate the value of such a discovery? It has simply armed us tenfold as physicians in our battle with disease. How can we write calmly and without pleasurable excitement at the contemplation of a discovery that has made us tenfold better able to prevent and cure disease than we were in times past? Truly indeed have the sciences of medicine and surgery been revolutionized within the knowledge of the present generation.

Though we still hold to many old methods and give them due weight and place in our study of disease, we bow down with admiration before the newer discoveries that bacteriology has laid open to our view. The time at my disposal is not sufficient to enumerate the many death-dealing diseases that have been brought under control by our new methods of research, but the subject would be incomplete if I failed to mention some few of them.

Puerperal fever, that filthy and fatal disease! How many valuable lives have been carried away by its malign influence? And no death occurred in the practice of a physician that was so hated and dreaded as this. No death could occur that appealed to our sympathy like that of the young mother with her new-born babe. Do I not call up to the memories of many of the middle-aged practitioners who are listening to me to-day many days and nights of dread and anxiety that they have spent, in the early days of their practice, when this miserable disease was all too common? What shall we say of it now? It has been almost swept out of existence by the advance of science. To have almost banished puerperal fever from among us, if nothing more were done, should shed lustre upon the effort that attained it.

No one of the diseases to which we are liable has been the subject

of so much earnest inquiry and study as tuberculosis. The distressing character of the disease, its fatality, the fact that it spread among all classes and orders of people, and spared neither age nor sex in its ravages, were powerful motives to urge the active practitioner, as well as the student of pathology, to make vigorous search into its true character.

We were thoroughly learned in all the phenomena of its slow but fatal course. Before the science of bacteriology laid the truth before us, we knew everything of tuberculosis except what it was. It remained for that science to find the true cause, the tubercle bacillus. It is true we have not yet reached the point of being able to cure, but we have made a long step in that direction. We have learned this important fact, that it is an infectious disease, and is as communicable from person to person as Asiatic cholera or typhoid fever. We have learned how it can be avoided and prevented.

Again, what a splendid triumph it is to be able to say that we have particularly met and conquered that dread disease, Asiatic cholera, the very name of which but a few years ago would send a thrill of fear and horror through the nations of the earth. As with these so it is with a long list of virulent diseases—typhoid fever, tetanus, diphtheria, erysipelas, glanders, and many others have been traced to the special form of micro-organism which produces them.

There is another disease the mortality from which is very great, and one which is dreaded alike by physician and patient, on account of the prolonged suffering which precedes its fatal issue; I refer to cancer. The cause of cancer still eludes our search, though we have reason to believe it is due to some form of micro-organism, animal or vegetable. At the present time many investigators are working faithfully to isolate the germ of this disease: we earnestly hope that success may soon be within their reach. Let us be thankful that, though our progress in this direction has been slow, we have learned enough to know, or at least believe, that cancer in its very earliest stages is a local disease, and that the system is infected from the first point of growth. This advance in our knowledge has taught us one valuable lesson—that is, that there is only one hope for the patient, and it is by attacking the disease in its very earliest stage. It would not be within the province of a paper on medicine to do more than mention the magnificent opportunities for successful work which the science of microbiology has given to the operating surgeon within the past twenty years.

I desire, however, to trespass upon your time for a few moments while I discuss the question: What share have the English-speaking

people of the world had in this great upward march of medicine and its allied sciences? It must be acknowledged with regret that in the honoured role of scientific workers who have wrought the largest share in advancing this new science of medicine we find the names of many Germans, Frenchmen, Russians, Danes and Italians, and only a few to represent the English-speaking nations of the world. In making this statement I do not forget that it was the genius of the renowned Lister, whose name we all delight to honour, who first demonstrated the practical application of the germ-theory to surgical practice, thereby maintaining for British medicine the high rank and position it had always held in the past. Nor do I forget that among the scientists who have been carrying on this great work we find the names of Burden-Sanderson, Woodhead, Sydney Martin, Ferrier, Horsley, Welsh, Councilman, Vaughan and others; but most of the labour has been done in France and Germany and other European states. It is to the great laboratories on the continent of Europe—to Paris, Berlin and Vienna—that we must go to find both the cradle as well as the school-house of this new science, that has unfolded to us many of the human mysteries of life and death. The brilliant genius, the patient toil and careful study of the men of these and other great centres of medical investigation, have placed the world under a debt of gratitude that will not be appreciated or rewarded until the mighty results of their discoveries upon all forms of life are fully developed and properly understood; for as yet the science of microbiology, with its kindred studies, is in its infancy, and, in the light of what has happened, one is lost in admiration and wonder at the almost infinite possibilities within the grasp of its teaching. In the brilliant galaxy of scientific workers of Europe there is one name that stands pre-eminent among the rest—that of Pasteur. It is to France we look for the birthplace of the new science, and of Pasteur we can say without exaggeration that he ranks among the first of all the great discoverers of science who in times past have enriched the world with their genius. His labours in the study of hydrophobia challenge the admiration of every lover of science.

We regret that in these advances we have not, up to the present time at least, kept pace with other countries.

It is a fact to be regretted that the English, American or Canadian student has to learn two languages besides his own if he wishes to take a full course of study in physiology, pathology or bacteriology.

Within the last few years the larger institutions for medical education in London, New York, Edinburgh, Belfast, Baltimore, Montreal and some other places have been endeavouring to remove the stigma

from the English-speaking world; and now we find grown up in these cities large and well-equipped biological laboratories; but they have been established mainly by the efforts of the scientists themselves, aided in some cases by the munificence of wealthy benefactors. Why, then, should it be reserved for the continental nations of Europe to take the lead in scientific research?

Taking the whole British Empire, including Great Britain and her colonies, together with the United States, we find a population of over one hundred and fifty millions of people who boast, and, in the main, justly so, of being first among the nations of the earth in everything that pertains to advanced civilization. In the world of statesmanship, of literature and commerce, we take first rank. In power, position and influence the two great English-speaking nations are pre-eminent above all others. Why, then, should we take a secondary place in the world of science? It is not that we are behind others in ability or mental calibre; for in every department of life that requires intellectual development of the highest order we can point to names that rank as high or higher than those of other peoples. The reason is a simple one. It is that the continental nations of Europe foster and uphold science, their governments take upon themselves the duty of establishing laboratories, the workers in which are state officials, who are paid by the government and are thus enabled to devote their life to investigation and teaching without being troubled as to the daily wants of themselves or families. With us the very opposite is the case, science is left to the scientist and the scientist pursues his labours unaided by the State, and if he attempts to devote himself to original work he must do so by neglecting the practice of his profession, and it may be see his family stinted in their daily wants. We must state the fact, although it is not creditable to us, that science, which has for its object the preservation of human life and maintenance of health, is lightly thought of in England and the United States. We are all aware that the important subject of preventive medicine, which aims to remove the causes of disease, was not dealt with intelligently by the British people until within the past twenty years. Previous to that time medical schools were teaching hygiene, medical men were labouring to impress its importance upon the people, the medical press was urging the necessity for sanitary laws. It was demonstrated that thousands of valuable lives were being lost every year by preventable disease, yet no interest was awakened. It was not until the Prince of Wales contracted typhoid fever and his illness became so serious that for a time his life was despaired of that public attention became aroused. People began to

ask what this fever was? where it came from? and how it could be prevented? In a short time the trend of public opinion was strongly in favour of sanitary legislation. Parliament soon crystalized public opinion into sanitary laws which, with improving amendments that have been enacted from time to time since, have given England a distinct department of the public service devoted to the public health.

The British people are a commercial people, and the same may be said of their offspring in the colonies and the United States.

If we wish to arouse public opinion in regard to the importance of these new sciences we must show that they have an influence on the material wealth and commerce of the country.

In most countries it is the farmer who is the real wealth producer. In this country farming is by far the most important industry, to it we look for the production of the food supply of the world. When we consider the enormous amount the export of the product of the farm returns to this country we can gather some idea of the immense importance that agriculture is to us. It is not necessary, then, to prove that everything that tends to give a more successful yield to the labour of the farmer should claim the special attention of the Government. I am glad to see that the fact is being recognized, though slowly, that the pursuit of agriculture requires an education in science, and so we find that schools of agriculture, experimental farms, and other means of teaching scientific farming, are growing up among us. But we are only waking up to the importance of this special scientific training, and though we lead the mother country in this respect (for this subject is to a large extent neglected in England) still we are only making a small part of the effort that should be made in this direction. In many European countries, by reason of the fact that science is fostered and supported by the government, its influence upon agriculture, manufacture and the arts is more quickly recognized and applied than in England, the United States, or in this country, and in consequence in many lines of production we find these countries, more especially Germany, are taking a lead with better and more finished articles in the markets of the world. This is more particularly the case in regard to those articles in which the advance of science has influenced production.

This new science of bacteriology has an especial relation to agriculture. As we now know that bacteria have a direct influence upon human life and its diseases, so the life of other animals and plants must be equally under the power of bacterial growth. To show the extent to which this is true it is only necesary to name some of the diseases of animals that are known to be due to micro-organisms, such

as glanders, tuberculosis, with its poisoning power on meat and milk, anthrax or wool-sorters' disease, actinomycosis or lump-jaw. In addition to these there must be other diseases due to bacteria in the various animals used for human food, and the raising of our food products in a perfect and healthy form is most important to the trade interests of the country. Then there must be the special bacteriology of each plant with its various blights, a thorough knowledge of which must be necessary to successful agriculture. The products of the dairy, butter and cheese, are governed in the changes that take place in their manufacture by what was known as fermentation. We now know that this fermentation is a complex process brought about in its different forms by various kinds of micro-organisms and that each organism has the power of influencing the colour, taste and quality of the product. The same may be said of the manufacture of bread, beer, cider, vinegar and wine.

In order to show what science can do in building up a lucrative trade I will call your attention to the extraordinary fact that Denmark at the present time almost controls the market of England in the supply of the best articles of butter. The farmers of Denmark have no special advantage over the farmers of England only this, that in Denmark the Government have established scientific schools in which the subject has been closely studied. Their bacteriologists have succeeded in isolating the various types of germ that produce special changes in the course of butter production, and by the artificial application of these they control and direct the fermentive process.

I will not weary you any further by dwelling upon this subject, as I am afraid to trespass on your time, and I will conclude by urging upon this Association the importance of its relations to the State in regard to this subject; for as it was in the pursuit of the great science of Medicine that bacteriology with its far-reaching influence was given to the world, it would be in the line of our duty as the chief medical organization of Canada to urge upon our Governments, both Federal and Provincial, their duty of founding and supporting schools of experimental science in this country.

If we desire to hold our place among the nations we must no longer depend upon private efforts for this purpose, the Government must undertake this duty and let it be done with no niggardly hand. Let our young men who have a taste for scientific work have an opportunity of exercising their skill. Open places for them where their ability will be rewarded. Let us be able to boast that this greatest colony of the British Empire was the first among the English-speaking people to show that science is no longer an amusement for the

savant or part of the frills of an ornamental education, but that it is a practical training for the every-day work of life, for the health and well-being of the people, and a most necessary factor for the protection of the great interests upon which the wealth of the country depends.

If I would be permitted to make a suggestion I would ask that this Association appoint a committee to enquire how much has already been done in the teaching of experimental science in Canada and to urge upon the Federal and Provincial Governments the need of much further effort in this direction.

I thank you very much for your kindness in listening to this imperfect paper.

Clinic.

LOCALIZED EMPYÆMA DISCHARGING BY THE LUNG—OPERATION—CURE.

CLINICAL LECTURE DELIVERED AT THE MOFTREAL GONERAL HOSPITAL.

By F. G. FINLEY, M.D.

Assistant Professor of Clinical Medicine, McGill University; Physician to Montreal General Hospital.

This man, 30 years of age, has entered the hospital for pain in the region of the stomach and occasional vomiting. On enquiry we find the pains have been present for two years and are described as being sometimes dull, at other times sharp and piercing. The vomiting has not been frequent and there have been no other symptoms referable to the stomach. Although not forming any part of his complaint, cough and expectoration have been noticed since his admission, and again on enquiry we find that this cough has been present ever since an attack of pneumonia seven years ago. Three years ago he coughed up a large quantity of matter, about a pint. His general health has been poor since the attack of pneumonia. There have been weakness and inability to work and some shortness of breath.

Coming to the physical examination you notice that the face is pale and there is a rather sallow tinge of skin. Although of large frame his muscles are small and soft. The finger-nails are clubbed, whilst the temperature is normal and the pulse 84.

Examination of the chest shows that the apex beat is in the fourth space just outside the nipple. Expansion is equal, but there is on percussion a hyper-resonant note in front on the right side. Posteriorly there is a flat note on the right side from the angle of the scapula to the base of the lung, and corresponding with this area there is marked enfeeblement of the respiratory sounds and of vocal resonance and fremitus. The sputum is muco-purulent and in part altogether purulent; it is extremely fetid and offensive and of a dirty greyish-brown colour. Neither bacilli nor elastic tissue are present.

The abdominal organs and urine present no departure from the normal.

You will notice that in detailing his complaint far more stress was laid on the pain and vomiting than on any other symptom, yet on examination the seat of the disease is in the chest. We have frequently to correct the impressions conveyed in the history a patient gives us by the results of physical examination. You have already had oppor-

tunities of observing pain referred to the abdomen in cases of thoracic disease, and it is only a few weeks since we had a patient with pleurisy who referred the pain chiefly to the abdomen. If you remember that the lower five or six dorsal nerves supply the skin of the abdomen you will readily understand why pain is referred to the abdomen in such cases.

We find certain physical signs in the chest which are of great importance. In the first place the heart's apex instead of being in the fifth space one inch inside the nipple, lies just outside the nipple line in the fourth space; and secondly, we find a flat note at the base of the right lung. These two facts are extremely suggestive of the presence of fluid in the pleura and are by far the most important signs of that condition. The absence of breath sounds and of vocal resonance and fremitus are also points in favour of the presence of fluid. One fact which we have learnt from the history of the patient throws a good deal of light on the condition. Three years ago he spat up a large quantity of pus and since then has constantly expectorated in moderate quantities. Such a history taken in connection with the physical signs is very suggestive of empyema rupturing through the lung and being expectorated through the bronchi. The localized character of the effusion is explained by adhesions of the pleura cutting a sac off from the general body of the cavity and localizing the collection of pus to the base of the pleura.

To confirm this suspicion I passed a small aspirating needle through the eighth space in the scapular line yesterday and drew off a few ounces of excessively fetid pus. This method of examination is of the greatest value in the diagnosis of chest diseases, and may always be employed where there is doubt as to the presence of fluid. I may say *en passant* that it may prove deceptive to introduce a hypodermic needle when pus is present, as that fluid is frequently too thick to pass through such a fine channel. Empyema is not the only form of abscess which ruptures through the lung. Abscesses seated in the connective tissue below the diaphragm, known as sub-diaphragmatic abscesses, occasionally terminate by rupturing through the diaphragm, pleura and lung and being expectorated. Such an abscess might give very similar physical signs to what we have in this case, the lung being pushed up and replaced by the dull note due to the presence of pus, and the heart being displaced to the opposite side.

The history of pneumonia preceding the illness from which he now suffers is, however, strongly in favour of empyema, as the pleurisy always accompanying pneumonia occasionally passes on to the formation of pus.

The man gives us a very clear account of a splashing sound in the chest, which was present about the time he expectorated the pus several years ago. On placing the ear at the back of the patient's chest and shaking him we fail, however, in eliciting any sound of this character. A splashing sound audible to both patient and physician has been known since the time of Hippocrates and goes by the name of Hippocratic succussion. For its production there is required a cavity containing air and fluid, conditions met with in pneumo-thorax and in rare cases of sub-diaphragmatic abscesses to which air has been admitted by communication with one of the hollow abdominal viscera. Remember that succussion does not occur in cases of simple pleuritic effusion, a condition in which no air is present in the pleura. In the case of our patient we can readily explain the presence of this splashing sound owing to the entry of air from the lung to the pleural cavity containing fluid. The air has now been absorbed, so that we obtain no splashing sound. That there is a communication between the lung and the pleura is shown by the occasional expectoration of fetid pus, in addition to the muco-purulent secretion coming from the bronchi, infected by the discharge of fetid pus from the pleura.

The appearance of the patient might suggest to some of you the possibility of tuberculosis. The pallor and emaciation, the long-standing cough and expectoration, the clubbing of the nails, all have a resemblance to this common disease. These symptoms, however, are equally well explained by the long continued suppuration and clubbing of the nails, results from any obstruction to the circulation in either heart or lungs. The examination of the sputum for tubercle bacilli has also proved negative, so that we can exclude such a condition being present, and basal tuberculosis is sufficiently rare to make us cautious in its diagnosis.

Empyæma is a disease which usually ends in death if not relieved. There are, however, several methods of spontaneous cure, of one of which our patient presents an example of the attempt of nature to throw off the disease. In rare cases the pus may be absorbed and the walls of the cavity fall in and become calcified from the deposition of lime salts. In others, again, rupture externally may occur, usually in front of the chest, and spontaneous cure may result. In a third class the pus may rupture through the lung into a bronchus, frequently allowing air to enter the pleural cavity and setting up, as in our patient, a pyo-pneumo thorax. An attempt at this third method of cure has been made here, but although the rupture took place three years ago the discharge still continues, and there seems to be but little hope of cure being completed in this way.

You know that long continued suppuration has a tendency to set up amyloid disease, so that it should if possible be checked. We have so far no evidence of this condition being present, as there is no enlargement of liver or spleen, no albuminuria and no chronic diarrhœa. The possibility of such a complication, however, is an additional reason to endeavour to check the discharge.

I have asked Dr. Armstrong to see the case with a view to operation. The cavity is at the base and is therefore in a favourable position for drainage, and there is a fair prospect that the man may be cured of an affection which has rendered him unfit for any active work for seven years. In the meantime we have ordered him an antiseptic inhalation of thymol, with a considerable amount of benefit in diminishing the fetor of the expectoration.

NOTE.—The thorax was opened by Dr. Armstrong, a rib resected and the cavity drained. Pneumonia, probably due to inhalation of pus during anæsthesia, developed in the opposite side, but the patient eventually made a good recovery and was discharged free from cough and expectoration.

Clinical Reports.

NOTES ON THE LUNGS OF ONE OF KOCH'S EARLIEST TUBERCULIN PATIENTS.*

By J. G. Adami, M.A., M.D., (Cantab.) M.R.C.S., Eng.,
Professor of Pathology McGill University, Montreal.

The lungs in the case about to be recorded possess a certain amount of interest, inasmuch as according to the history given by the patient, a highly intelligent man, thirty-three years old, he was one of the first to undergo treatment under Professor Koch in Berlin.

The patient, A. Rickstrom, was born in Finland and was in good health until 1890, when he suffered from hæmoptysis, followed by a cough, night sweats and progressive emaciation. He was admitted under Koch at the Victoria Hospital in Berlin and there continued for fifty-two weeks undergoing periodic inoculations with tuberculin. Under this treatment his appetite improved, he began to gain flesh, and the night sweats passed away. He returned to Finland, and his health appeared to be restored. In June, 1893, he came to Canada and was employed as a skilled mechanic in the engineering laboratory at McGill University. He remained apparently in perfect health until January of this year, when the cough returned, and all the old symptoms—night sweats, loss of flesh and bodily weakness. On March 20th there was an hæmoptysis, about half a gallon of blood being lost; on the 23rd and 24th there were two severe hæmorrhages From this time until April 18th, he being now a patient under Dr. Stewart at the Royal Victoria Hospital, there was constant slight expectoration of blood with but little cough. On this last date severe hæmorrhages recurred, in all about a quart of blood being lost. Following upon this there was rapid loss of power, and the patient died ten days later.

At the autopsy it was noticeable that there was no indication of tuberculosis other than in the lungs, save for some quite recent and minute ulcers in the jejunum and ileum. The lungs, however, presented very characteristic tubercular changes. There were firm adhesions at both apices—so firm that on the left side the knife had to be employed to separate them. Both apices showed old tuberculosis in the shape of well-encapsuled caseous masses and small contracted cavities with dense envelopes and smooth but uneven internal aspect. In addition, the upper two-thirds of the uppermost lobe of the right lung and the upper half of the upper lobe of the left lung were greatly consolidated, contracted and presenting very well-marked

* Read before the Montreal Medico-Chirurgical Society, June 28th, 1895.

interstitial fibroid change. Here evidently in both apices were to be seen the results of treatment in 1890–91—abundant signs of arrest of the tubercular process. It was, however, clear that the process had only been arrested—for the rest of the lung tissue was the seat of numerous rather large miliary tubercles, which from their distribution were broncho-pneumonic—distributed along the course of sundry bronchi. Injecting the pulmonary arteries with water led to the escape of the fluid through one of the main bronchi of the upper lobe of the left lung. Following this up a long cavity was entered into containing a globular laminated clot over what was the seat of rupture of the artery. Some difficulty was experienced in finding the actual lesion, the artery filled with thrombus escaping detection for some little time.

Bringing all these facts together it would seem most probable that the second attack of advancing tuberculosis was not a second infection, or infection anew, but originated in the old arrested foci of the disease, where the process lighting up again in the walls of one of the old incompletely contracted cavities had been followed by dissemination of the virus throughout the air passages, and had prepared the way for rupture of arteries passing along the walls of the cavity.

The recent tubercles were most numerous in the neighbourhood of the old tubercular disturbance. It was interesting to note that upon microscopical examination they were found to be surrounded with very little pneumonic disturbance; they were not of the rapidly advancing type, but on the contrary were in general fibroid, with distinct caseous centres and large outer zones of developing fibrous tissue. This would indicate one of two conditions—either the bacilli causing the lesions were relatively attenuated, or the reaction on the part of the tissues was relatively considerable. We should be prepared to accept the latter alternative if, as is not impossible, the beneficial effects of long-continued tuberculin infection last for a considerable period, but I know of no case in which this has been demonstrated for periods longer than a few months. It should here be added that the microscopical appearances of sections of the lungs were in harmony with the clinical history and with the general results of the autopsy. The pectoral and other muscles were fairly well-developed and of good colour; there was a fair amount of subcutaneous fat.

But perhaps the most interesting feature of the specimen was the evidence it gave of the extent of pulmonary tuberculosis capable of being arrested by Koch's treatment. Both apices had clearly been the seat of extensive tuberculous change. There was extensive tubercular pleurisy, much caseation, and the development of numerous (five or six) cavities in the two apices. The treatment that the patient had undergone during his year's stay in the Berlin hospital had succeeded in bringing the lesion to a standstill during four years.

A CASE OF CARCINOMA OF THE CARDIAC END OF THE STOMACH WITH UNUSUALLY NUMEROUS METASTASES.*

By C. F. Martin, B.A., M.D.,
Demonstrator of Pathology in McGill University.
AND
A. A. Robertson, B.A., M.D.,
Senior Resident Physician Royal Victoria Hospital.

The present case, which has been under the care of Prof. James Stewart at the Royal Victoria Hospital, is reported to this Society not as being one of great rarity but rather as being an interesting example of the various means whereby cancer may extend through out the body, of the great inroads it may sometimes make, and of other features which may concurrently occur.

The patient, C. M., æt. 50 years, entered the Royal Victoria Hospital on March 24, 1895, complaining of inability to swallow or retain solid and liquid food. His occupation as a rancher in the Northwest had always induced an active mode of life, while his frame convinced one of his great athletic powers. He was accustomed to luxuries and had used alcohol to great excess for many years.

For his present ailment he first consulted a physician in the autumn of 1894, his symptoms pointing to some gastric affection. His manner of living had suggested the diagnosis of gastritis and treatment therefor had been adopted with temporary relief.

Early in March he again had recourse to the physician, and now for the first time manifested his inability to admit any kind of food into his stomach, while even liquids would occasionally regurgitate. A tube was at once passed and met an obstruction at the lower end of the œsophagus and the patient was forthwith removed to Montreal. On the journey he developed marked œdema of the leg, which had evidently some relation to the long-standing varicosity of the crural veins constantly aggravated by riding. On admission his condition was briefly as follows: Great weakness, some emaciation, occasional syncopal attacks and a preference for a sitting position. Marked œdema of the left leg with some lividity; pulsation of the left femoral scarcely perceptible. No spontaneous pain anywhere except in this leg Tongue coated; ingestion of solids impossible, and almost constantly rapid regurgitation of liquids. The regurgitation was performed with ease and attended by no retching. Bowels constipated, abdomen

* Read before the Montreal Medico-Chirurgical Society, April 19th, 1895.

retracted. Liver area much increased, the liver surface presenting some large circumscribed nodules. No signs of dilatation of stomach, nor of vermicular movements. Only a very small bougie could be passed into the stomach, on account of a marked stenosis at the cardiac orifice. Heart and lungs presented no special abnormality. Urine contained small quantities of albumen and sugar. The diagnosis was not difficult—cancer of the cardiac orifice of the stomach with secondary involvement of the liver and probably of the pancreas. The treatment carried out was feeding by means of the stomach tube, the administration of opiates and stimulants, and attention to the local œdema.

Progressive emaciation and weakness followed, however, and forty-eight hours before death several syncopal attacks with great respiratory distress followed, in one of which the patient suddenly died.

Autopsy.—(Owing to certain restrictions only a partial examination could be made and the thoracic organs were removed through the diaphragm.) Body was that of a large, well-built man, 185 cm. long, with the usual signs of an early post-mortem condition. Œdema of the lower limbs was marked, especially on the left leg, where gangrene of the three central toes had developed in the distal phalanges. Moderate panniculus and muscular development. In the abdominal cavity about 100 cc. of thin, turbid, brownish fluid. Liver descended 10 cm. below costal margin in mammary line. The omentum contained a moderate amount of fat and was adherent to the subcutaneous tissues about the umbilicus, where a large firm nodule 3 cm. in diameter was found, giving the usual appearance of a cancerous growth. Elsewhere throughout the omentum were various other smaller nodules similar in character. Spleen small, soft, with wrinkled capsule; no metastases. An accessory spleen of small size was also present. Left kidney large, heavy and very firm, 15½ cm. long, weight 355 grms. Its fatty capsule was infiltrated with cancerous growths, which likewise involved the adrenal. The new growth further invaded the subjacent kidney substance, forming a nodule the size of a pea; the condition otherwise was that of chronic parenchymatous inflammation. The lymph glands about the renal artery were greatly enlarged, one about the size of a walnut; all presented cancerous infiltration. Right kidney was similar in size to the left; its outer surface presented two small growths within the capsule and not connected with any adjacent neoplasms whatever.

Right adrenal was of about twice its normal size, extremely firm on section and showing general carcinomatous involvement. Liver enlarged firm and heavy; weight 3575 grms. Its surface of a

greenish brown colour, and dotted over by numerous nodules of various sizes and densities, some resembling the tubercles of Parre, others showing no degeneration at all. There was elsewhere the usual amount of hæmorrhage and cyanotic atrophy present, but no evidence of cirrhosis. Portal vein and larger bile ducts free. Gall-bladder distended with thick dark green bile. Its serous coat dotted over with several small new growths.

Stomach and œsophagus were removed together. In the former were some coffee ground contents. The upper half of the œsophagus was normal, while the upper portion of the lower half presented numerous nodules of new growth isolated rather than in groups, and from here downwards the nodules increased in size and number till the last fifth was reached, where one diffuse cancerous mass was found continuous with a similar mass in the cardia of the stomach, thereby forming a marked stenosis of the orifice, through which a No. 8 silver catheter could just be passed. The most extensive change was in the cardia itself and the post-œsophageal tissues. The mucosa showed here an extensive old ulceration, which extended also along the lesser curvature for about 8 c.m., the parts farthest from the œsophagus being evidently the more recently affected. In the periphery of the ulceration and elsewhere dotted over the stomach, especially over its posterior wall, were numerous smaller nodules.

The pancreas showed diffuse cancerous infiltration, as did also the diaphragm. There was no involvement of the mesenteric glands, nor did the intestines seem to be affected, though they could only be partially examined. The thoracic duct was free.

The pericardial cavity and surface of the heart were normal. Within the right ventricle were three pediculated thrombi, the largest about the size of a filbert nut. They all presented softened centres, forming typical pseudo-cysts. The valves were all normal and apparently competent. Coronary vessels slightly atheromatous, the muscle fatty. In the lungs, which were greatly congested and heavy (their respective weights being 800 and 600 grms.), there were many hæmorrhagic infarcts visible from the surface. The subpleural lymphatics were distinctly dilated, while here and there the small cancerous masses could be seen, the largest of the size of a pea.

Section into the lung showed, in addition to the infarcts, great œdema and bronchitis, with multiple emboli in the pulmonary arteries. Some of these were firmly adherent and evidently undergoing considerable organization Further, the lowest fifth of the left lung was firmly consolidated, apparently fibroid. The peribronchial glands were of great size and consistence, evidently cancerous, while one

of them, adherent to the trachea at its bifurcation, had induced extension into the latter structure, where the tracheal mucosa showed a yellow grey nodule, already partly broken down.. Supra-clavicular glands did not seem to be affected.

The crural veins showed thrombosis on the left side. The artery in its course through Scarpa's triangle was free.

No further examination was permitted and the autopsy was hurriedly brought to a close.

Microscopic examinations of the various tissues showed the presence of a columnar-celled carcinoma, evidently originating in the cardiac end of the stomach, extending secondarily to the œsophagus, where the growths showed the same kind of cells. The squamous epithelium of the œsophagus nowhere showed any more proliferation than could be explained by the chronic irritation due to varied causes.

The liver, kidneys, adrenals, pancreas, glands, trachea, &c., all showed the same characters of neoplasm as was seen in the primary growth, viz., columnar or polyhedral cells of epithelial type. The base of the left lung manifested a pleurogenous fibrosis without discernable evidence of cancer. The tissues of the toe immediately above the gangrene showed organized emboli in the arteries and veins, but no evidence of cancer. The thrombi in the crural veins and those in the heart and lungs were of a non-malignant nature, evidently marantic.

The condition above given is thus of considerable extent and the modes of extension numerous.

Originating in the cardiac end of the stomach, the condition spread thence by the lymphatics, both to the œsophagus, and along its own mucosa; and by direct extension to the prevertebral tissues and the pancreas. From here the contiguity of the left adrenal and kidney favored progression in this direction, while the other kidney was apparently affected by infection through the blood stream. The nodules in the liver may have originated in various ways, the portal veins being one of the main tracts, inasmuch as cancer cells were frequently found in their lumina, though the main vessel remained free. Following upon this infection, the diaphragm, from its position, became involved and likewise the omentum. The extension to the lungs was either by direct contact, or through the newly formed lymphatics of the pleural adhesions. The involvement would naturally include the glands to which these lymph channels lead, while the further extension by contiguity to the trachea is, so far as we are aware, a rather rare condition.

As regards the site of origin, it is generally recognized that disease

of the cardiac end of the stomach is rare; in most instances, the œsophagus is the primary seat, the condition there leading by extension to secondary involvement of the stomach.

In giving statistics of the frequency with which cancer affects various portions of the stomach, Orth places but 10 per cent. in the category of cardiac cancers; others regard the affection as still more rare. In this connection it may be of interest to quote Fagge's views, based on examination of the records of Guy's Hospital and of the Pathological Society. "I may at once state my opinion," he says, "that almost all cases that have been set down as examples of cancer affecting the cardia, have really been instances of cancer of the end of the œsophagus, extending into the adjacent parts of the stomach. . . . . Indeed on a priori grounds we should expect that a part at which the digestive tube is opening out into a large cavity, should have little or no tendency to be affected with the disease, in comparison with the narrow passage above it."

In our own case, however, there seems no room for doubt; the oldest and most extensive ulceration and fibrosis are immediately about the cardia, while the affected portions along the lesser curvature are undoubtedly more recent; at the same time the microscopic appearances preclude entirely the possibility of an œsophageal origin.

A CASE OF SCURVY.*

By H. A. Lafleur, B.A., M.D.,
Assistant Physician, Montreal General Hospital,
AND
Hugh M. Kinghorn, B.A., M.D.
House Surgeon, Montreal General Hospital.

T. W., aged 58 years, a checker by occupation, was admitted to the Montreal General Hospital on May 1st, 1895, complaining of general debility. His illness commenced suddenly in the beginning of March with chills, shooting pains in the chest and constant dull frontal headache. The pain settled in the hips and back and was severe enough to confine him to the house for about ten days. He has continued to lose strength for the past five weeks, and has noticed that he suffered from shortness of breath on slight exertion and that an eruption has appeared on his legs. At the same time his gums have become tender and bleed while he is cleaning his teeth

His dietary for some time previously has consisted almost exclusively of bacon and eggs, but as he became weaker he was confined to tea and toast. Vegetables formed no part of his diet.

On admission to the hospital his appearance was that of an intelligent, fairly nourished man. He stated that he was born in Ireland and that at the age of 19 he had enlisted in the British Army, in which he had remained 21 years; since then he has acted as checker. Forty years ago he had jungle fever while in India, but no other illness.

He stated also that during the two months previous to his admission to the hospital he had lost about 50 pounds.

Though fairly fleshy the muscles were flabby, the arcus senilis was well marked, the conjunctivæ injected. He complained of a dull, heavy, constant pain in the calf of the left leg, the pain being much worse when the leg was squeezed or put to the ground.

Both tibiæ showed previous fractures and above the seat of the fracture of the left tibia the leg was swollen and slightly œdematous. The skin of both lower extremities was dry and harsh and the hair follicles were prominent, giving a goose skin appearance. On the lower extremities and the lower part of the stomach was seen a papular eruption of a dark red hue, more marked on the extensor surfaces than on the flexor. The papules were separated from one another, were well marked, measured from one to two millimetres in

* Read before the Montreal Medico-Chirurgical Society, May 27th, 1895.

diameter, did not fade on pressure and were situated about the orifices of the follicles; no itching accompanied the eruption.

Behind and to the outer side of the right knee was a hard, flat, subcutaneous swelling about two and a half inches long by one inch wide. A similar though smaller one was seen on the right olecranon process. The skin covering these was bluish-black. No pain or tenderness accompanied the swelling. Over the body and extremities were ecchymotic areas with subcuticular nodules, producing an appearance as though he had been bruised.

The pulse was 80, regular, easily compressible, and the artery was slightly sclerosed.

The cardiac impulse was not visible; the cardiac dulness was increased to the left and reached transversely to a point just inside the nipple line. Though there were no adventitious sounds, the heart sounds were very weak.

The tongue was clean; the teeth were very tender and would not permit him to masticate solid food; the gums were congested, of a bluish-red colour, soft, and could be lifted from the teeth; even on slight pressure they would bleed.

The urine had a specific gravity of 1020, was clear, had a slight flocculent precipitate, contained no albumin or sugar.

The blood showed 75 per cent. of hæmoglobin and 3,750,000 red cells to the cubic millimetre. There was no poikilocytosis.

Examination of the eyes by Dr. J. J. Gardner revealed no retinal hæmorrhages and the fundi to be normal. There was no night blindness.

The treatment consisted in a generous diet, containing plenty of fresh vegetables, lemons in the form of lemonade, and an iron tonic; in addition to these he was kept in bed till his strength returned. The improvement was rapid and at the time of his exit he felt in good health and fairly vigorous.

RETROSPECT
OF
CURRENT LITERATURE.

Medicine.

Pernicious Anæmia.

RALPH STOCKMAN. "Remarks on the nature and treatment of pernicious anæmia."—*British Medical Journal*, May 4th, 11th and 18th, 1895.

The aim of Dr. Stockman in his remarks on this subject is to show that pernicious anæmia is not a disease in itself, but that it is a condition secondary to numerous remote or predisposing causes which, in certain individuals only, result in the degree of anæmia and the train of symptoms characteristic of the illness.

The current opinions regarding this condition are reviewed under three headings:

Is pernicious anæmia a distinct disease? He believes that generally this question may be answered in the affirmative, but among those who have devoted much attention to the subject there exists great difference of opinion. As far back as 1822 Dr. J. S. Combe refers to the unsettled opinions on this question. In Addison's application of the term "idiopathic anæmia" undoubtedly a condition the same as that now designated by pernicious anæmia was referred to, while Biermer, Quincke, Bristowe and Coupland regard it as not a disease in itself. Eichhorst holds the view that some cases are primary, idiopathic or essential, others secondary. Dr. William Hunter's opinion is that pernicious anæmia is to be regarded as a special disease both clinically and pathologically.

Turning to review his consideration of the second heading or question, What cases are to be regarded as pernicious anæmia? the author here also presents some diversity in the views held, but the conclusion arrived at is "that pernicious anæmia is not a disease *sui generis*, but simply a collection of symptoms characteristic of the highest degree of anæmia." Since the day of Addison the number of cases which fall under the class of "idiopathic anæmia" has been very much

diminished, and that some are yet so classified still implies lack of knowledge. Such striking identity of clinical pictures produced by causes so widely different can afford but one conclusion—that already drawn—which has the support of the highest authorities, Nothnagel, Habershon, Quincke, Müller, Bramwell, Coupland and many others.

The immediate cause of the condition forms the third division of the author's consideration of current views. All writers have hitherto regarded the immediate cause to be either a deficient blood formation or an excessive blood destruction. Among the views presented those of Mott and Hunter are chiefly dealt with. The former assumes that the extensive destruction of the red blood cells is in excess of the normal blood-destroying function of the liver and spleen, while the latter holds that the excess of iron in the liver distinguishes pernicious anæmia from all other varieties of anæmia, and accounts for this excessive deposit of iron by the theory of a cadaveric body, the product of some micro-organism, disintegrating the red blood corpuscles in the portal vessels, and there only.

In the next place Dr. Stockman presents his views, which are:

(*a*) Pernicious anæmia follows usually on well-recognized debilitating causes.

(*b*) Anæmia induces in some persons degenerative changes in the vascular system.

(*c*) These degenerative changes permit the occurrence of numerous minute internal hæmorrhages, which ultimately lead to a high degree of anæmia.

That degenerative changes occur in the heart and vessels appears from the evidence of Combe, Addison and Wilks, whose observations have received abundant confirmation from all observers, without exception. The exact nature of the degenerative changes is not decided, nor does the author regard this as an essential point. And further, that minute internal bleedings do occur is affirmed by writers of wide experience, among whom the author quotes Biermer, Eichhorst, Müller and Pye-Smith.

The chief feature in Dr. Stockman's paper is the endeavour to prove that in these hæmorrhages satisfactory cause may be found accounting for the usual symptoms of pernicious anæmia. Enumerated these symptoms are:

(*a*) Extreme anæmia along with a usually fat and well-nourished appearance.

(*b*) The yellow colour of the skin, blood serum and fat.

(*c*) Excess of iron in the liver and other organs.

(*d*) The richness of the red blood cells in hæmoglobin.

(*e*) The excess of urobilin in the urine.

(*f*) The fever.

Taking these in the above order the author refers them to the "minute internal hæmorrhages." Much more profound anæmia is brought on by chronic small bleedings than by large hæmorrhages. In the former the patients adapt themselves to small quantities of hæmoglobin, while in the latter the change is too sudden. The fat remains, as it cannot be oxidized in the absence of hæmoglobin. The blood plasma will not deteriorate before the digestive organs fail to change the food in a fit condition for absorption.

The yellow colour of the skin, blood serum and fat is due to the altered hæmoglobin dissolved in the blood serum, the result of absorption from hæmorrhagic areas.

The excess of iron in the liver and other organs is accounted for on the ground of excessive destruction of hæmoglobin in the extravasated blood. This is borne out by observations in cases of purpura, severe fractures with extravasations and in malaria, as well as by experiments on animals, the livers and spleens from which contain an excess of iron from induced subcutaneous hæmorrhages

The richness of the corpuscles in hæmoglobin so commonly noticed in pernicious anæmia is due to the same condition, and, favoured by a diminution in the number of the red corpuscles, those remaining are more richly supplied. Urobilin, a derivative of hæmoglobin, is very frequently increased in conditions of pernicious anæmia.

The explanations of febrile conditions is not so clear in the author's mind, but in his remarks upon this point he refers to the irritation of the heat centres in the nervous system, by small hæmorrhages, and also suggests that the blood condition may be the active cause, as febrile movements have been observed in chlorosis and in animals rendered anæmic.

Some cases regarded as pernicious anæmia do not present in the blood examination a relative increase, or the normal amount of hæmoglobin, nor do the organs, especially the liver, in such cases when examined, show the presence of iron in quantities characteristic of pernicious anæmia. Such cases are those in which the extreme degree of anæmia present was reached through external hæmorrhages, hence the absence of iron for glandular deposition. As examples, coming under this case, prolonged cases of epistaxis and those due to intestinal parasites are cited.

The difficulty of explaining why more of those exposed to debilitating influences do not develop degenerative vascular changes is analogous to that found in attempting to explain insanity and phthisis,

for those in whom these diseases develop form but a very small proportion of the number of those exposed to the exciting or immediate causes of the same. In this connection Dr. Stockman does not deny the possibility of the existence of a cadaveric poison as Hunter points out.

With regard to the treatment, the author says it should be based on etiological considerations, and reviews several conditions as those due to intestinal parasites, hæmorrhoids, menorrhagia, privation and hardship, syphilis, etc. After referring to the time-honored practice of giving iron, arsenic and phosphorus, reference is made to transfusion, only to point out its comparatively unsatisfactory results. Any reference to the treatment of this condition is incomplete at this time without mention of and remark upon the use of bone marrow. Good results may have been obtained, but it is difficult to account for them. By analysis of the yellow and red marrow in use in different hospitals it was found that besides being composed almost entirely of fat with some connective tissue, the yellow variety contains $\frac{1}{65}$ gr. of iron to the ounce, while the red variety contains about $\frac{1}{30}$ gr. of iron in the same quantity. Dr. Stockman remarks, "Clearly it cannot be the iron which is beneficial, if benefit does result."

W. F. Hamilton.

Pericarditis.

ALDRED S. WARTHIN. "Accentuation of the pulmonary second sound an important sign in the diagnosis of pericarditis."

In an interesting paper on this subject the author cites a series of five cases, showing the importance of an accentuated pulmonary second sound as a physical sign for the early diagnosis of pericarditis, when no other accountable reason for such accentuation exists.

In some of his cases the patients had entered the hospital with symptoms pointing more or less definitely to some cardiac disease; in others the symptoms were less marked, but in all there was a notable accentuation of the pulmonary second sound, this being of a peculiar clangorous nature. In some cases he had observed murmurs simultaneously, though these would soon disappear, giving place to a characteristic friction sound, heard best along the left border of the sternum—later effusion developed. When recovery took place all the signs of cardiac disturbance disappeared, and the writer concludes therefore that the signs present were all of a pericardial nature, the first evidence of onset being this accentuation of the second pulmonary note. He regards it as always an early sign and emphasizes the necessity of making careful and repeated examinations of the heart whenever a basal murmur (apparently hæmic) is attended by

accentuation of the pulmonary second sound. Although appearing early in the disease, it is the last to disappear.

Warthin further asserts the value of this sign with reference to the early treatment. Three of his cases were being allowed violent gymnastic exercise, which from the nature of their disease produced dyspnœa, præcordial distress, etc., while had the early manifestations been taken into consideration they might have obviated the evils resulting from not giving to an already over-worked heart its necessary rest.

Similar instances of an early diagnosis have been recorded by Josserand, of Lyons, to whom Warthin expresses his indebtedness for an explanation of this physical sign and with whose views he fully coincides. As a rule pericardial exudations are commonest and greatest in quantity over the infundibulum of the pulmonary artery, and the subjacent muscle is greatly congested. Hence there exists an abnormal consistence of the structures in front of the pulmonary valves, leading naturally to a better conduction of the sound resulting from their closure.

C. F. Martin.

Surgery.

Gall Stone Surgery.

KEHR. "Gall stone surgery."—*Medical and Surgical Reporter.*

The Germans have been doing some good work recently in gall stone surgery. Dr. Kehr thinks that too few operations are performed for gall stone, and that many patients now at Carlsbad should be under the care of a surgeon. Most surgeons who have had any experience in gall stone surgery will probably agree with this view. The operative treatment is attended by but little danger when done by an experienced surgeon, and is seldom, if ever, followed by a relapse. The public will soon learn this.

Dr. Kehr says the urgency may be great, although consequent enlargement of the liver and tumour of the gall-bladder may be absent, and that biliary colic is sometimes a consequence of adhesions between the gall-bladder and the pylorus. In operating Dr. Kehr would separate these adhesions. He is also strongly in favour of removing the gall-stones from the cystic duct or the common duct by incision and immediate suture of the opening. His results have been good.

ELLIOT. "Cholecystotomy and cholecystenterostomy."—*Annals of Surgery*, July, 1895.

This article is written in the belief that the operations of cholecystotomy and cholecystenterostomy have become too much the routine practice in the relief of gall stones.

The author holds that incision of the ducts or gall-bladder followed by immediate suture is the proper operation in the majority of cases, and especially recent ones.

Dr. Elliot reports a case of (1) removal of an impacted stone from the hepatic duct and immediate closure of the duct; (2) removal of stone from common duct and suture of the duct. In this case a cholecystostomy had been done some time before the operation on the duct. When last seen the gall-bladder was still discharging externally. (3) Stones removed from the cystic duct by syringing them back into the gall-bladder. The opening in the gall bladder was immediately closed and dropped back into the abdomen and a small gauze drain placed near the suture line in the gall-bladder. (4) Immediate suture of gall-bladder after extraction of stones.

Bad results from leakage of bile have rarely been reported in late years There seems to be very little danger of this accident if the common duct is clear and the walls of the gall-bladder are in a moderately healthy condition, and only such cases are suitable for immediate suture.

The question is can we in any given case make sure that the common duct is free and the bile sterile? Will it not be found to be good, safe practice in all cases of incision into the cystic, hepatic or common duct to do a cholecystostomy, as recommended and practiced by Kehr in seven cases, to prevent the pressure of bile from straining the duct sutures, as well as to establish drainage for the ducts?

Dr. Elliot places a sand-bag under the back so that the patient is bent over it. In this position the intestines gravitate to the lower part of the abdomen. The ducts are palpated and if a stone is found it is grasped between the thumb and forefinger of the left hand and raised as much as possible. The duct is incised longitudinally over the stone and the sutures inserted before the stone is removed. Two rows of sutures are used, one of catgut for the duct itself and silk for the overlying peritoneum. A small drainage tube is passed down to the duct and surrounded with gauze.

TUFFIER. "Lumbar choledochotomy."

Tuffier read a paper recently before the Societé de Chirurgie de Paris suggesting that the common duct be approached from the loin. This method of removing a stone from the common duct occurred to him while he was exploring a tumour in the region of the right kidney. When the kidney was raised he could feel the gall-bladder and common duct filled with stones. After experimenting on animals he decided that this operation was possible, and he gives the following directions for carrying it out:

Place the patient on left side with a pillow underneath the loin. Make an incision parallel with 12th rib and a finger's breadth below it, commencing at the angle and passing inwards 15 cm. and deepen the incision until the lower end of the kidney is found; this he pushes up with a broad retractor. The inferior vena cava is raised and pushed inwards and the second portion of the duodenum along with the head of the pancreas is drawn outwards. By means of the finger a cord can now be felt at the bottom of the wound, which passes upwards and consists of the common bile duct, and its accompanying vessels. By careful dissection that portion of the common bile duct which lies in the pancreas and behind the duodenum can be isolated and examined. The author has performed this operation in

ten bodies and in no case failed to find the duct. This method of operation is also suggested as a possible way of evacuating purulent foci situated in the pancreas.

An interesting discussion followed, objection to the operation being taken largely on anatomical grounds, it being argued that the duct would be difficult to approach in that way, and that there would be great liability of wounding the inferior vena cava, hepatic artery, portal vein or pancreas.

Suture of the Heart.

DEL VECCHIO. "Suture of the heart."—*Ref. Med.*, April, 1895.

Del Vecchio gives his results of experiments on dogs. He thinks that the heart in case of wound can be successfully sutured. He showed a dog at the last congress in Rome whose heart he had sutured after it had been wounded in two places. The dog was killed forty-two days after suture, and at the autopsy it was proved that one of the wounds had pierced the endocardium and entered the ventricle. He prefers interrupted sutures. In case of death from wound of the heart the fatal result seems to be due to the presence of the blood diffused into the pericardium. It would be a nice question to decide whether to open or aspirate the pericardium and thus induce a greater flow of blood, or not to interfere, on the ground that the pressure of clot in the pericardium tends to check further escape.

Results of Excision of Knee-Joint.

HUTCHINSON. "On the results of excision of the knee-joint."—*Archives of Surgery.*

Dr. Hutchinson has been able to follow the four cases of excision of the knee-joint that he has done in private. One died of acute tetanus and the other three made perfect recoveries.

In all these three cases the recovery was by firm, bony anchylosis. In none has the slightest trace of sinus remained, and in none has there been any return of the disease. All the patients have for long laid aside any mechanical protection or appliance. It is needless to say that they are all very much better off than they would have been had amputation been performed. Possibly, also, they are as regards absolute freedom from any liability to relapse, better off than many of those who now recover after what are considered less severe operations by incisions, scraping and drainage.

It is thirteen years since the last case was done.

Suprapubic Lithotomy.

HEATH. "Stone in the bladder."—*Brit. Med. Journal*, June 1, 1895.

Mr. Heath gives a most instructive clinical lecture on the removal of stone from the urinary bladder by the suprapubic method. The following short history is interesting.

"The operation is a revival of a very old proceeding, an operation which was done, so far as we can tell about the year 1560, by a French surgeon, Pierre Franco, and it appears to have arisen in this way: He was going to remove a stone by the perineal operation, but found that it was so large that he could not do so; and then he found that the stone could be easily pushed up above the pubes, and accordingly he cut down upon it there and took it out without difficulty and the patient did perfectly well."

It has been very little practised for the last 250 years. The great lithotomist Chiselden took it up in 1700, but abandoned it in favour of the lateral perineal operation.

In 1878, an article in the *Edinburgh Medical Journal* drew attention to the effect on the bladder of distending the rectum. Again, in 1880, Petersen, a Danish surgeon, of Keil, quite independently promulgated the notion that if you distend the rectum and at the same time the bladder, you would get the effect which Dr. Gasson pointed out. So Petersen invented the rectal bag which is a sausage-shaped or conical india-rubber ball, which is pushed into the rectum and distended with fluid and the bladder being also filled, is raised, and the peritoneum is pushed up out of the way.

The concluding paragraph of Dr. Heath's lecture shows clearly his opinion of the suprapubic as compared with the perineal:—

"I do not want to trouble you with the details of perineal lithotomy, because you will probably never see it done. The suprapubic method seems so thoroughly to have established itself among surgeons that one may easily look forward to its being the operation of the future.

G. E. Armstrong.

Pathology.

The Phagocytosis Controversy.

PFEIFFER, R. "Zeitschrift für Hygiene," XVIII., 1894, p. 1.
METCHNIKOFF. "Etudes sur l'Immunité,' VI.—*Annales de l'Institut Pasteur*, IX., 1895, p. 433.

In the whole range of pathology there is assuredly no study of more fundamental importance than that of the means whereby the organism protects itself against injurious agents, and certainly at the present moment the most fascinating branch of this study is that of the means employed by the organism to resist the invasion and growth within it of micro-organisms. Notwithstanding the amount of enthusiastic research of the highest order directed towards this end opinions are stil divided on the matter, and we have the two main schools of those who regard the destruction of microbes as being mainly brought about by the instrumentality of the bodily humours, and those who place in the front rank the power possessed by certain cells of incorporating and subsequently digesting the microbes. Between these two schools the war has been waged for now nine years, and while of late there has steadily increased in importance and weight a third or intermediate school, there remain numerous and influential adherents of the most extreme views of either side.

The articles quoted above indicate very correctly the attitude taken by the two opposing schools, and represent well their strength as well as their weakness. They are more especially worthy of attention in that for once we have an attempt made by one party in the controversy to repeat conscientiously the experiments of the other. Such attempts are far too rare at the present day, and when they are made they demand the most favourable comment. It is altogether too common for bacteriologists to endeavour not to confirm the researches of their fellow-workers by careful imitation of the methods employed by them, but to confute their researches by investigations along other lines, and as a consequence confusion and contradiction are paramount. But that the confusion is not wholly due to this cause is made very clear by observing the way in which two leading bacteriologists occupying almost identical positions arrive at widely different conclusions from a study of the same phenomena. Pfeiffer is the director of the research laboratory at the Hygienisches Institut

(Koch's) at Berlin, Metchnikoff director of the research laboratory at the Institut Pasteur in Paris.

In the long series of his studies upon the resistance of the organism to the invasion of microbes, Pfeiffer has shown himself a zealous adherent to the theory of bactericidal action of the bodily humours. While at first he wholly overlooked the phagocytic action of the leucocytes and other cells, he has of late (in connection with influenza and cholera) acknowledged that this may be abundantly manifest. However, he still considers it as purely a secondary phenomenon, and where, as in certain experiments of Issaeff carried on his laboratory, he observed a definite relation between the phagocytosis induced and the destruction of pathogenic microbes, he regarded the change as being of the nature of resistance "pro tem." and as distinct from long continued and true immunity.

In the paper quoted at the beginning of this article, Pfeiffer calls attention to a very remarkable phenomenon. If a guinea pig be repeatedly "vaccinated" against the cholera spirillum until it has been rendered highly refractory and insusceptible to inoculations of doses of the spirillum in amount many times greater than that which would swiftly kill ordinary guinea pigs, and a suspension of virulent virus be injected into its peritoneal cavity, or if an unvaccinated animal be taken, and into its peritoneal cavity there be injected virulent spirilla, to which has been added a small quantity of the serum of a highly vaccinated guinea pig, then the following changes are observable. From ten to thirty minutes after the inoculation, drops of fluid removed from the peritoneum are found to contain very few leucocytes but numerous minute motionless granules. These granules are nothing more nor less than modified germs, which in place of being comma shaped have become swollen and globular. These observations have been repeated and extended by Max Gruber, Dunbar and Metchnikoff. There can be no question now as to their correctness.

Here then we have proof positive of the extra-cellular modification of pathogenic germs—of the action of the humours of the body upon them. The modification cannot be due to phagocytosis, for leucocytes are largely absent—only at a later period is phagocytosis observable.

According to Pfeiffer this modification of the spirilla is destructive, is, in fact, a death of the organisms, and the bactericidal substance is a secretion from the endothelial cells of the peritoneum. In a later paper* he acknowledges that the leucocytes may contribute to the

* Zeitschr. f. Hygiene. XIX. 1885, p. 87.

secretion, but he still holds to the endothelium as playing the main part in its production.

These most important observations have been greeted by the extreme adherents of the humoral theory as driving the last nail into the coffin of phagocytosis.

Metchnikoff, as I have stated, has repeated and confirmed Pfeiffer's observations, but his examination of the matter throws a very different —or more truly, a fuller—light upon the nature of the phenomenon.

In the first place, it is to be noted that this "phénomène de Pfeiffer" occurs only under very special circumstances: it is not to be observed as a general rule; and if it proves that microbes can be destroyed by extra-cellular action it certainly affords no proof that such extra-cellular destruction is the common method whereby the system frees itself from harmful micro-organisms.

In the second place, Metchnikoff points out that there is a very striking relationship between the phases of the process and the conduct of the leucocytes. Under normal conditions the peritoneal cavity contains a varying quantity of lymph which is turbid through the presence of large numbers of leucocytes of all kinds. But, as Issaeff has shown, the introduction of diverse substances in the cavity leads the fluid to become rapidly clear; the leucocytes become broken up and dissolved—and Metchnikoff points out that if, in Pfeiffer's experiment, the peritoneal fluid be examined five minutes after injection of the spirilla, numerous leucocytes are observable, but they are profoundly modified—are immobile and present various stages of degeneration and dissolution. To this process Metchnikoff gives the barbaric name of Phagolysis; he points out that it affects only those cells which are potential phagocytes, the lymphocytes being unaffected. Thus the relative absence of leucocytes noticed by Pfeiffer is by no means an indication that these cells have played no part in the extra-cellular destruction of the microbes. That the endothelial cells take part in the secretion of the bactericidal substance is purely presumptive, and cannot be proved experimentally; that the peritoneal leucocytes can alone lead to the production of the phenomena has been proved by a very pretty experiment. The blood serum alone of a highly immunized guinea pig will not cause the spirilla to assume the globular modification—nor again will the peritoneal lymph of an ordinary guinea pig—but if a drop of this last fluid be taken, and to it be added a minute quantity of the above mentioned serum, together with a few spirilla, and the mixture examined under the microscope, identically the same series of changes is to be made out as is to be seen in the successive phases of the experiment of Pfeiffer. This experiment

renders it extremely probable that the bactericidal substance is liberated from the leucocytes in the process of dissolution.

Metchnikoff, however, would proceed further and declare that this action alone is incapable of destroying all the spirilla; that some are only modified and not destroyed. He points out:—that if the swollen globular spirilla be transferred to broth and placed in an incubator a typical growth of spirilla is the result, and that if Pfeiffer's experiment is carried further there is to be seen a rapid increase of the leucocytes in the peritoneal fluid. that these act as phagocytes, taking up the modified but still living microbes, and, in short, that without phagocytosis the bactericidal and extra-cellular action of the peritoneal lymph would be incapable of arresting the subsequent growth and multiplication of the cholera germs. Pfeiffer, it may be added, has taken the exactly opposite view that the fact that cultures of the spirilla can be obtained from the peritoneal fluid after his phenomenon has attained its climax, is due to the leucocytes in taking some of them up having prevented the bactericidal action, and so having preserved them alive! Metchnikoff shows by an interesting series of experiments, which space forbids that I should detail, that Pfeiffer's view is untenable. He shows further that where a non-fatal dose of spirilla is injected into the peritoneal cavity of an ordinary untreated guinea-pig there is then no sign of Pfeiffer's phenomenon, but the spirilla can be recognized retaining their characteristic shape and being actively motile until in the course of a few hours there is a pronounced multiplication of leucocytes and, with this, phagocytosis and destruction of the microbes. Once within the leucocytes in such a case the spirilla undergo the spherical modification—a further indication in favour of the assumption that the bactericidal process is of a similar kind, or induced by the same substance, both under intra- and extra-cellular conditions.

Accepting, then, the main facts here adduced, we arrive at the following conclusions:

1. That pathogenic bacteria can be destroyed by other than intra-cellular means, and that thus phagocytosis is not the sole weapon possessed by the organism for their destruction.

2. That even when extra-cellular destruction of the microbes is actively proceeding phagocytosis may be an auxiliary factor.

3. That the bactericidal substance leading to extra-cellular destruction of the microbes in Pfeiffer's experiment would appear in the main to be liberated from the disintegrated leucocytes.

4. That the "phénomène de Pfeiffer" is only to be observed under particular conditions, and supplies no proof that under more usual

conditions extra-cellular destruction and bactericidal action of the humours play the predominant part; on the contrary, phagocytosis can be clearly recognized under the more usual conditions in the absence of distinct evidence of extra-cellular destruction of the cholera spirilla and would appear to enter into the final stage of Pfeiffer's experiment.

The weak point in Metchnikoff's position during the last two years is that while frankly accepting facts of this order, which show that bacteria can be destroyed in the organism by other means than direct ingestion by the cells, he is loth to include them in the theory which he has built up in such wonderful detail and with a perseverance and ingenuity that is little short of marvellous. It is only natural that having worked for so many years towards the one end of establishing the importance of phagocytosis he should find it hard to accord anything like the same value to other methods of destruction of pathogenic germs in the system. All the same the adherent of phagocytosis, pure and simple, has ceased to exist; the adherent of the humoral theory, pure and simple, remains as far as ever from establishing his position.

It is after all but a small matter to the organism as a whole whether living or dead and modified leucocytes achieve the destruction of pathogenic micro-organisms. The important matter is that it is achieved, and that, in the main, through the instrumentality of the leucocytes, so that we can pass beyond the mere knowledge that microbes are destroyed and can appreciate to a fuller extent how the destruction is brought about.

J. G. Adami.

Society Proceedings.

THE CANADIAN MEDICAL ASSOCIATION.

The meeting of the Canadian Medical Association held in Queen's University, Kingston, August 27th, 28th and 29th, under the presidency of Dr. Wm. Bayard, of St. John, N.B., was a successful one, all the provinces being represented except Manitoba and British Columbia. Many excellent papers were presented.

Diagnosis and Treatment of Retro-displacements of the Uterus.

This was the title of the first paper, and was read by Dr. Lapthorn Smith, of Montreal. He attributed the causation of this condition to miscarriages, forced labours, over-strain, falls on the back. Relaxed conditions of the muscular system in which the round ligaments (which were muscular) shared was another predisposing cause. The diagnosis in uncomplicated cases was easy. When there was associated displacement of the ovaries or tubes, with an inflamatory condition present, the diagnosis was not so easy. In such cases, if the sound were used, it should be introduced most gently. Methods of replacement were then described. In cases where operative procedure was necessary to retain the uterus in place, the writer recommended Alexander's operation or ventro-fixation, the technique of which he gave.

Dr. FARREL, of Halifax, said that when operating in these cases he had an assistant hold the uterus up with a sound, and in this way a much smaller incision was required. In one case which he had operated on, the patient showed signs of intestinal obstruction four days after operation. After placing the patient in the Trendelenburg position and shaking the hips strongly, a sudden and severe pain announced the fact that the obstruction had disappeared.

Sir WM. HINGSTON said retroversion without adhesion was not difficult to deal with. With patience it would not be necessary to resort to Alexander's operation or ventro-fixation. With a stem pessary the uterus might be kept in position for a few weeks when the organ would retain its position unaided. He preferred ventro-fixation to Alexander's operation.

Dr. WHITE, of St. John, reported a case in which he had done ventro-fixation. The uterus was healthy but enlarged.

The President's Address.

Dr. WM. BAYARD then presented his address. (See page 161.)

Sir JAMES GRANT pointed out how the general practitioner suffered by the free treatment at hospitals of patients able to pay. In regard to the question of sanitary science much had been done, but there remained much to do. He agreed that state paid officers should be appointed to do special and bacteriological work as the ordinary practitioner had not the time nor the apparatus for doing it. Sir James advocated also the establishment of abbatoirs. All foods, such as milk and meats, should be rigidly inspected for the presence of tuberculosis and other diseased conditions. As to the educational question, he believed that instruction should be provided along lines that would be helpful to the man in his after work in life. There was too much indiscriminate work done and too much asked of each individual child. It was a matter of regret that the youth of the country were fleeing from it into the cities, leaving the honourable calling of the farmer and seeking a place in the over-crowded professions. In the matter of liquor drinking he pointed to the immense decrease in it; he remembered how common it was for him to be called to treat cases of delirium tremens, cases which he seldom saw now. Socially the custom was "going out."

At this juncture Dr. WESLEY MILLS exhibited two cats, from which he had removed the thyroid glands twenty-four hours before Tonic spasms, dyspnœa, emaciation, almost entire inability to walk, and facial respiration, were the most noticeable features.

Physical Training as a Therapeutic Measure.

Dr. B. E. MCKENZIE drew attention to the difference between athletics and gymnastics, and stated the various exercises included under the latter. In the hurry of modern life it was too often forgotten that a man required a sound physical organization to possess a high degree of mental attainment. The dress of women was a matter of vital importance. Many pathological conditions were induced by the tight lacing. A contrast was drawn between the figures of women with natural and unconstricted waists and those of women who laced tightly. He pointed out that in the former, as well as in the best Greek models, the waist measure was little less than that of the chest, To correct the mal-formation and its *sequelæ* the corsets should be thrown off and physical development practised. He advocated the introduction of such instruction into the public schools under medical supervision. Where spinal deformity, apart from diseased conditions, was present, it should be remedied by change of dress, massage and drill, by which the patients are taught to correct their own errors. Dr. McKenzie's method, as shown by the relation of several histories of cases, consists in first showing the patient in a mirror the actual con-

dition, and how much by her own effort it can be corrected and maintained, in encouragement of the patient to assume and retain always the corrected position, and in a course of gymnastics to train the weakened muscles to maintain the proper position, The important points are to re-educate the individual, to teach her self-dependence, and to get her to co-operate patiently and perseveringly with her adviser in securing a cure. The doctor presented photographs of patients showing the original spinal deformities and the same patients after treatment.

Dr. LOUIS SAYRE, of New York, said that this subject was one of immense importance, and he was glad it was being brought before the profession in the different parts of the country. Physical training had not been attended to at all, and it tended to the ruin of the elements that sustain a national life. The mental and moral force of a nation depend on the physical condition of its people. The training must be systematic. It was not so much the training of the brain that was needed. To correct lateral curvatures it was not instruments, not machinery, not splints and plaster jackets that were needed, but training. He had seen imbecile children unable to walk, squint-eyed, and generally incapacitated, under a few months' treatment become transformed physically and mentally.

Dr. REGINALD SAYRE commended Dr. McKenzie's method of treating these cases. In too many cases the massage and manipulations were unsatisfactorily given by those who professed to carry out this treatment. When properly carried out the effect of this treatment was marked on the circulatory and nervous systems as well as on the muscular. In some cases where the bones were distorted, a supporting apparatus was helpful ; just as one would apply an apparatus to a child with rickety legs and hold them until the bones could sustain the weight, so he found it necessary to support the rickety spine until it was sufficiently firm to support the weight of the head and shoulders.

Dr. RODDICK said that from a considerable experience with these cases he believed that if the cases were seen early enough one might promise a cure by properly conducted physical exercises. In one class where there was marked osseous deformity, one could never promise a cure ; all that could be done was to prevent the mischief from becoming worse. It was very necessary to place cases for treatment in the hands of intelligent instructors. He did not believe it was good practice to place these patients in a class with well children. They should be trained in classes by themselves. Exercise would be more guarded then. In the more severe cases, beside

the teaching, in the interval some support should be given in order to keep what is gained. He had used a light Sayre jacket in cases of lateral curvature. A spinal brace or stay was also useful, and might be left on during a long journey, but never during exercise. Care should be taken in prescribing exercise for lateral curvature not to develop the stronger side, thus aggravating the mischief. The use of the mirror was advantageous, as it appealed to the vanity of young ladies especially, inducing them to unbend the curvatures by airing their exercises before the mirror or between two mirrors properly arranged. In a recent visit to Egypt he had noted that there were none of these spinal cases there. This exception was said to be due to the custom of carrying water bottles upon the head. In order to maintain the balance, the muscles of the spine are always brought equally into action. He had given an order to the person in charge of his cases that the patients might carry a weight on the head occasionally.

Dr. McKENZIE said that he never promised a cure in any case. He thought it inadvisable to use any supports at all. It would defeat the object in view of educating the patient to self reliance.

The Address in Surgery

Was delivered by Dr. I. H. CAMERON, his subject being the present status of cerebral surgery. This field of work was opened by Macewen in 1876, and began to be generalized in 1884. The essayist went on to deal with the present status of the subject in its different departments, dealing first with fractures of various kinds and their surgical treatment. He then referred to the matter of hæmorrhage, meningeal and cerebral, to tumours, cysts, and abscesses. Some references were made to modern operations on the brain, to the instruments employed, and the application of surgery to diseased states of the brain, such as epilepsy. Elaborate statistics were given of the results achieved.

Dr. J. E. GRAHAM related the history of a case of sarcoma of the medulla oblongata. He also presented the tumour which had been obtained post mortem. The patient was aged 52. Eight years ago had typhoid, after which he never felt quite as well as before. Had rheumatism three years ago, lasting three months. In 1894 he had la grippe. One evening, returning home, he fainted, striking his head against a window sill, the injury being on the back of the head on a line a little below the occipital protuberance. Toward the end of the summer he grew weak, being unable to stand unsupported. In attempting to walk he would fall toward the left. In February, 1895, he noticed a numbness on the left side of the face, which subsequently extended to the neck, arm, and forearm on the same side,

tactile sense remaining unimpaired. Electrical reaction normal. Other symptoms supervened which made him consider himself seriously ill. He suffered from occasional attacks of vomiting. He complained of some headache in the occipital and frontal regions. Dizziness and vomiting increased. A lesion of the cerebellum was suspected. An attack of pneumonia set in from which patient died. Post mortem a small, spindle-celled sarcoma of the medulla was found attached to the restiform body. The essayist then exhibited diagrams showing the position of the tumour and pointed out its relations. He gave a *resumé* of the bibliography on the subject.

Removal of the Membranum, Tympani and Ossicles.

This was the title of a paper by Dr. BULLER, which will be published in the October number of the JOURNAL.

Cold Baths in the Treatment of Typhoid Fever.

Dr. OSLER, of Baltimore, gave the result of five years experience with this form of treatment. He stated that when the patient's temperature rose above 102½° he was placed in a bath at 70° F. every third hour. To patients with heart weakness strychnine and alcohol in small doses were given, particularly after the bath. Milk, broths and egg albumen constituted the diet. Three hundred and fifty-six cases had come under treatment in the hospital, with twenty-five deaths. The mortality was 7.02 per cent. of all cases and 6.3 per cent. of the bath cases. It was to be remembered that hospitals were usually given the worst cases. In certain cases the baths were contra-indicated—as where the temperature did not rise to 102½°, in very mild cases, in cases markedly asthenic; and where serious complications were present, as hæmorrhage, perforation, etc. So that the Brandt method had not been strictly followed. The beneficial effect was not wholly due to the antipyretic action, but to the general tonic effect. Although not in favour of the treatment at one time, he had become an advocate of it, having seen its good effects in his own cases, as well as in those of the large hospitals in other portions of the globe. From statistics gathered it gave better results than any other form of treatment.

Dr. MUIR, of Truro, N. S., referred to annual epidemics of typhoid he had experienced following river freshets. He pointed out the difficulties of carrying out the cold bath treatment in private practice, of the opposition of the patient's friends, and of the danger to the medical man's reputation if serious results followed the cold baths. He condemned the use of the ordinary antipyretics. His watchword was, watch the pulse, not the temperature. The speaker said most of his patients died from bowel complications. To avoid

constipation he used small doses of Rochelle salts, and for an antipyretic, alcohol. His death rate was 8.1 in 159 cases.

Skin Clinic.

Drs. J. E. Graham, of Toronto; L. Duncan Bulkley and A. R. Robinson, of New York, gave a skin clinic. The first patient was suffering from alopecia areata.

Dr. GRAHAM pointed out the various signs of the disease as could be demonstrated in the patient, and enquired into the patient's life history and the treatment she had been subject to. The alopecia had become general, although it commenced in a small area some three years before when the general health was poor. No particular cause could be elicited. It was difficult to say whether it was parasitic or not; some authorities contended that it was a tropho-neurotic affection. In these cases he advised chrysophanic acid, blisters or mercurials externally, and nerve tonics internally.

Dr. ROBINSON pointed out that no changes in the scalp were observable in these cases. The name alopecia areata was not a good one for the disease; it might be applied to the head when the affection causing the alopecia was something altogether different. He leaned to the parasitic theory of causation, as histologically examined inflammatory signs were present. The fact that the spots varied from the size of a pea to a patch three or four inches across was against the theory of its being a tropho-neurosis. With this microbic theory as to causation, rational treatment would consist in constitutional treatment and local parasiticides.

Dr. BULKLEY said that syphilis was excluded by the way the hair had fallen and by the appearance of the stumps. If the disease was a microbic one, it was not contagious, and in this respect differed from favus. To diagnose from tinea tonsurans a scraping, to which a drop of liquor potassa and glycerine had been added, would show the presence or absence of the tinea germ when examined under the microscope. Certain forms of seborrhœa would cause the hair to act like this, but the absence of inflammatory elements exclude the disease. The commencement of the disease in a small area extending circumferentially pointed to alopecia. The prognosis in these cases was good if one could hold the patient long enough and do what should be done. His theory as to the causation was the neurotic one, and until he was convinced otherwise he would treat accordingly with nerve tonics. Any systemic disorders required attention. As to diet he recommended fats and phosphates, these being the constituents of the hair. He gives milk in excess, always on the empty stomach, fats of beef and mutton, oil and butter, crushed wheat and fish. As to local treat-

ment, he would not put chrysarobin on the scalp, the objection being its extreme staining quality. He used strong mercurial preparations. Another remedy which he had demonstrated as helpful was the application of pure carbolic acid. His theory as to its action was the same as that attained by the use of blistering, *i.e.* blistering.

The next was a case of eczema seborrhœacum in a boy aged three years. It was usual to class this as a kind of psoriasis, until Unna discovered that it was a parasitic eczema. The vesicular and papular condition was shown, and its commencement as little reddish-brown patches extending at the periphery covered with scales. Its decreasing presence on the body from above downward was another interesting point. The difference between it and toxic eczema was pointed out. Salicylic acid and sulphur and resorcin are among the local remedies, while astringents are quite useless. Dr. Bulkley recommended for the scalp the following lotion: Resorcin ʒii, alcohol ʒiii, glycerin ʒiv, aquam ad ʒiv, ℞. Sig—To be dropped from a medicine dropper when the hair is lifted up.

Three cases of psoriasis were then shown and discussed.

The Operative Treatment of Injuries to the Head.

Dr. A. J. McCosh, of New York, dealt first with compound depressed fractures, stating the necessity for lifting the fragments as soon as possible after the injury. The symptoms of such a condition were detailed and also the technique of operation. The fragments of bone removed by the trephine or chisel might be replaced if proper care was taken. The question of complications was also discussed. Where the dura mater was lacerated it was difficult to know whether to suture. To do so was a protection against hernia cerebri. The handling of cases where the continuity of the scalp was unbroken and injury to the brain had occurred was outlined.

The speaker had operated on six cases of epilepsy resulting from old head injury, in three of which a permanent cure had resulted. He also gave the histories of a number of cases illustrating the points which he had touched upon.

Dr. Jas. Bell, of Montreal, said brain injuries had not always been treated with sufficient promptitude in the past. He had seen a number of cases die from hæmorrhage where early operation would have saved the patient's life. It was better to open the skull unnecessarily a dozen times rather than let one die for the want of operation. Generally speaking the dangers from head injuries were direct dangers from hæmorrhage—not from the loss of blood, but the pressure of the clot upon the brain within the unyielding cranial cavity—and the driving in of spicules of bone. The question of asepsis was of the greatest

importance in these cases, the occurrence of meningitis depending upon sepsis. The speaker compared the symptoms of an infective with those of a non-infective inflammation, the difference being attributable to the presence of the septic material. It seemed to him that frequently the very obvious lesion of depressed bone in simple fracture without pressure symptoms was more apt to attract the attention of the physician than the more serious, but less obvious leisons of internal injury, such as rupture of the middle meningeal artery or one of its branches. He detailed the history of a case where there was manifest injury to the scalp on one side of the head, accompanied by symptoms calling for operation. An opening was made but no lesion found. The patient was too weak to be subjected to a second operation on the opposite side. At the autopsy rupture of the middle meningeal artery on the opposite side was found. In operating, Dr. Bell said he preferred to use the chisel rather than the trephine.

Dr. G. A. PETERS, of Toronto, said that surgeons were almost unanimous in the opinion that an operation should be undertaken in head injuries where there was fracture without depression with symptoms of compression, and also in cases of fracture with depression without such symptoms. If cases of the second kind were left alone as some were disposed to do, serious symptoms and irreparable damage might follow, such as epilepsy. The doctor pointed out the necessity of enlarging the wound in cases of punctured fractures to ascertain whether or not there were any spicules of bone impinging on the brain substance. If the surgeon kept the wound aseptic, there was little danger of hernia cerebri. He thought it wise to retain the dura mater wherever possible.

Dr. W. W. WHITE, of St. John, N.B., related the history of several cases that had come under his notice. The first was an operation for depressed bone in a coal heaver who had been struck with a piece of coal. A chisel and mallet were used. Perfect recovery ensued. He also related the case of a child that had received a fall, followed by paralysis of the right side, accompanied with loss of speech, the dumbness lasting six months. Relief followed the absorption of the clot.

The address in medicine was delivered by Dr. Edward Farrell. (See page 174.)

The Newer Remedies in Skin Diseases

was the title of a paper read by Dr. L. Duncan Bulkley, of New York. Among those used in local treatment he referred more particularly to the value of resorcin, ichthyol, europhen and aristol.

Dysmenorrhœa.

Dr. J. CAMPBELL, of Seaforth, read a paper on dysmenorrhœa, accompanied by anteversion of the uterus and stenosis of the os internum. He outlined his treatment of the case as first, rapid dilatation with applications to the endometrium, afterwards galvanism, and finally laparatomy with extirpation of both tubes and ovaries. This was followed by a complete cure. The ovaries on removal showed a cystic condition which seemed to be the only element to account for the symptoms of the dysmenorrhœa which persisted after the dilatation.

The Importance of Early Treatment in Cutaneous Cancer.

Dr. A. R. ROBINSON, of New York, pointed out and illustrated with drawings the pathological condition present in the varied classes (as regards position) of epithelial growths, and showed the relation the progress of the clinical symptoms bore to the pathological condition, from a study of which rational treatment could be decided upon. It was, he contended, at first purely a local disease and quite amenable to cure if removed before the deeper structures were involved. In the cure of these cases the essayist said that he always used the knife. He condemned strongly the use of applications of nitrate of silver to small growths of a suspicious character. This often only aggravated the mischief.

Dr. WESLEY MILLS, of Montreal, presented a second time the two cats from which he had removed the thyroids. They showed considerable advancement in the symptoms. He described the method of operating. He pointed out the varied theories held as to the functions of the thyroid. It was certain that they were a necessity in doing certain work for the blood. The speaker pointed out the great complexity of the blood, and that no analysis of it could express what this was. He dwelt on the action and reaction of cell life upon cell life, of one organ on another, and the effect of the removal of certain organs on the individual physically and mentally. He pointed out the difficulty, remembering the foregoing, of ascertaining the whole function of any gland such as the thyroid, the suprarenal, the pituitary. The science of a complete physiology could never be perfectly realised.

Thyroid Feeding in Stupor.

Dr. C. K. CLARKE, of Rockwood Asylum, Kingston, read an interesting report on this subject. He stated that he had observed, as others had done before, the effects of acute disease on these cases of stupor, how that it benefited many, in some cases effecting a complete cure. In the first case reported in his paper the patient was almost

a hopeless dement. Upon the administration of the thyroid extract improvement began and gradually progressed until the cure seemed to be almost complete ; when suddenly the patient, without apparent cause, relapsed back into his former condition. In other cases, however, the writer reported the effects to be well marked, a permanent cure resulting. The doses given went as high as twenty grains.

Hip-joint Disease.

Dr. SAYRE, Sr., of New York, then gave a clinic on hip-joint disease. Two patients were shown. The speaker showed how he conducted the examination of a patient suffering from this trouble. The patient was completely stripped from the chest downward, two tapes were applied to the front of the body, the one reaching from the ensiform cartillage to the pubis, the other joining the anterior superior spinous processes. These should be at right angles. It was found that with the spine held well down to the hard table the sound leg could be twisted and turned in any direction without tilting the pelvis, the affected limb being held flexed to such a degree as to allow the back to be kept flat down. Then upon attempting to straighten the leg on the diseased side the pelvis would tilt up. It was shown that when slight traction was made in the line of flexion in which the limb was most comfortable, that ease was at once experienced. This indicated the line of treatment—to fix the joint so that the leg would be held in this position and to make slight traction. Then to gradually straighten while the child remained on his back. At the end of two or three weeks, when the limb was straight, a fixation splint could be applied and the child allowed to get out into the open air. This was the method to pursue if suppuration and abscess had not set in.

Acute Uræmia, followed by Gangrenous Abscess of the Lung.

Dr. MCPHEDRAN gave the following history of a case. The patient, a man 58 years of age, had for sometime been failing in health, suffering from vertigo, frequency of micturition, constipation, disagreeable taste in the mouth, hard pulse, etc. He had a convulsion, sudden in its onset and severe in character. It was followed by prolonged coma. Albumen was present in large quantity in the urine. The second week after the attack elastic fibres were present in the expectoration. Signs of change in the lung were noted by physical examination. There were recurring attacks of hæmorrhage, and at three distinct periods the breath smelled gangrenous. Under treatment improvement took place, followed by recovery. The condition of the lung the writer believed to be due primarily to degenerative

changes in the pulmonary artery. Beside the hygienic treatment, diuretin was administered in 15 grain doses every four hours.

The Ophthalmometer.

Dr. R. A. REEFE read a paper in which he pointed out the great value of this instrument in ascertaining the presence of astigmatism and other refractive errors. He showed the superiority of this instrument over other appliances formerly used. By means of a photograph he demonstrated the parts of which it was composed.

A Case of Brain Tumour.

Dr. J. WEBSTER, of Kingston, read the notes of this case with an account of its removal. The interesting features were that the woman was admitted for insanity to the asylum, the symptoms being traceable to the presence of the tumour. The localization of the tumour was exactly made out by the appearance of paralysis of muscles of the upper limb. Owing to the weakness of the patient under the anæsthetic the operation was done at two sittings. The tumour was a small round-celled sarcoma, very vascular. Hernia cerebri followed and was pared off as it appeared and re-appeared.

Placenta with Hydatids.

Dr. A. BETHUNE, of Seaforth, related the history of a case. The woman's first labour was normal; her second pregnancy had advanced to the sixth month when flowing began—a discharge of water, mucus, and blood About three weeks afterwards labour came on. The uterus was almost entirely filled with spongy, friable placenta, which was removed piecemeal. Several of the pores contained hydatids. The fœtus was dead and crushed flat. The woman made a good recovery.

Hernia of the Vermiform Appendix.

Dr. R. W. GARRATT, of Kingston, related the history. The condition occurred in a green-grocer who had much heavy lifting. After an unusually heavy lift, some five years previous, he discovered that there was a swelling in the left inguinal region, which gave him considerable pain. He wore a truss for some time, but without relief. It was thought to be omentum and an operation was finally decided upon. Upon cutting down on the tumour a bubble of gas was noticed issuing from it, followed by the exudation of about a drachm of stinking pus. The appendix was drawn down and removed. The patient made an excellent recovery.

A Case of Trans-peritoneal Nephrectomy.

Dr. AHERN, of Quebec, presented this paper. The operation was done for hydronephrosis. It began by tumour in the left side, which after a few weeks disappeared. It was accompanied by pain. The

tumour re-formed. The history of the case and the points of differential diagnosis were pointed out. A distinguishing point in the diagnosis was the palpation of a ribbon-like band over its surface—the descending colon. The tumour was removed by an anterior median incision. The condition was found to have been due to a congenital malformation of the ureter. These cases usually occurred on the right side. The essayist referred to the treatment of these cases by aspiration and by nephrectomy.

Some Indications for Electrolysis in Angioma and Goitre.

Dr. C. R. DICKSON, of Toronto, pointed out in this paper that by treating angioma by this method the chances of disfigurement were much less than by other measures. Excision was often useless, the cautery was sometimes disappointing, and scarifications, applications and injections were not free from danger. Small, superficial angiomata called for the negative pole and mild currents. In the cavernous form destruction of tissue might be called for. Histories of cases were given showing the good results following this form of treatment.

Its application to goitre was also spoken of, 120 cases of which he had treated with gratifying success.

Some Proposed Changes in the Canadian Militia Medical Service.

Dr. TOBIN, of Halifax, discussed this question. He said that while serving in the Northwest campaign he had urged on the Government the adoption of the departmental instead of the present regimental system. The speaker also recommended the establishment of bearer companies, for the relief of the wounded on the field and the attendance in field hospitals. Such a provision would increase the *morale* of the soldier, knowing that if he did fall in the fight he would not be allowed to die on the field without aid. The paper was discussed by Surgeon-Colonel O'Dwyer, principal medical officer of the Imperial forces in Canada, who gave his personal experience of the two systems. He approved of the departmental system.

Inter-provincial Registration.

The committee appointed at the last meeting of the Association to look into the question of inter-provincial registration expressed their regret that by the system which at present obtains, a graduate in medicine entitled to practice in one Province is not free to exercise his functions in all the Provinces in this large but sparsely settled Dominion, that this condition of things prevents the names of medical practitioners in this Dominion being placed on the British register, becoming thereby British practitioners. This latter is a boon which the council of Great Britain has more than once signified its willing-

ness to grant. To secure these ends it is considered most desirable that a uniform standard of medical education for the whole Dominion be established. In order to effect this purpose it is suggested that the Secretary be instructed to communicate with the various provincial councils before the next meeting, asking that each council discuss the position and if possible appoint one or more delegates to a Dominion committee for the purpose of adjusting a suitable curriculum to carry out the suggestion herein, and that such committee be requested to forward its findings to the provincial councils and to the Secretary of the Association before the next meeting.

Montreal was chosen as the next place of meeting.

Dr. James Thorburn, of Toronto, was appointed as the President for 1896.

The Secretary and Treasurer were re-appointed.

The delegates to the Association were most delightfully entertained by their Kingston *confrères.* The principal feature was a trip down to Alexandria Bay through the Thousand Islands, luncheon being served on board. Mrs. (Dr.) Fife Fowler gave an "At Home" to the members of the Association on the first evening. On the closing day the members visited the Rockwood Asylum and the Penitentiary, through which institutions they were kindly shown by Dr. Clarke and Dr. Lavell respectively.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, June 14th, 1895.

G. P. GIRDWOOD, M.D., PRESIDENT, IN THE CHAIR.

Rare Form of Dislocation of the Hip.

Dr. H. S. SHAW exhibited this specimen and read the report, which will appear next month.

Carcinoma of the Rectum.

Dr. ARMSTRONG related the clinical history as follows: Man 45 years of age. Disease first noticed in July, 1892; it was a pretty high cancer of the rectum. I removed it by Kraske's method, made an incision on the left side, separated the attachments of the rectum from the sacrum, turned it down and got a very free entrance into the region of the rectum; then introduced the sound into the urethra, which assisted me very much in separating the growth from the urethra, prostate, and base of the bladder. I found I could get the rectum down very nicely, so that I was enabled to remove the tissues well above and around the disease. There were a few enlarged glands about the sacrum, which I removed. Then I sutured the ends of the bowel together. In Kraske's operation the sphincters are not disturbed; we go in from the sacrum and divide the rectum about 1½ inches or 2 inches above the internal sphincter, then bring down the malignant disease, divide the rectum above that and suture the two ends together. This case, like most cases, did not unite by first intention. There was leakage. A large mass which will be shown to you developed from the fistula where I made the entrance from behind. It was very slow in closing and the faecal discharges which came down for a long time was the cause of the fungoid growth which developed. The bowel, although three years have elapsed, only shows one or two small nodules in the neighbourhood of the growth. One year ago obstruction was so great that I did an inguinal colotomy. Of course this operation has been developed very much since 1892 and many improvements have been made. One of the most important is just now under discussion, and it looks very feasible; that is, to do a colotomy first (Schede does the colotomy afterwards). It seems to me it would be a good idea to do a colotomy first, establish an artificial anus, get the patient somewhat accustomed to the use of this artificial anus, get the lower rectum thoroughly cleaned out, and by thus rendering the field of operation aseptic, primary union of the cut ends may

be obtained, which it is believed lessens the liability to local recurrence.

Dr. JOHNSTON exhibited the specimen. At the autopsy a large fungoid papillomatous mass extended along the perineum and over the inner suface of the buttocks about the anus. The sacrum showed a deflection apparently corresponding to the point where it had been resected at the operation. There was a cancerous infiltration of the periosteum and of the anterior surface of the lower part of the sacrum, but no cancer involving the bone. There was no evidence of secondary growth outside of the rectum, either in the retro-peritoneal glands, liver or lungs. On slitting up the rectum, a cancerous ring was found constricting it at a point 2 inches above the anus. From this point the tissues of the lower part of pelvis show extensive cancerous infiltration. This tissue has broken down and shows numerous sinuses and fistulæ communicating with the fungating mass about the anus. There was intense phlegmonous inflammation of the perineum and scrotum, evidently derived from a perineal abscess which had opened into the urethra and led to urinary infiltration. The artificial anus appeared to be acting well. The lower part of the bowel contained some pus, and did not communicate with the bowel above the point of operation, but ended in a blind extremity.

Dr. JAS. BELL expressed himself as greatly surprised at one development of the autopsy, and that was the absence of enlarged glands in the abdomen. He was of the opinion that the glandular infection of the abdomen occurred with much greater frequency and much earlier than was generally supposed. In the past year he had had occasion to do inguinal colotomy in three patients suffering from cancer high up in the rectum—higher up than this was; and though there was very little disturbance of the general health in any of these cases, and not much obstruction, and the operation which he undertook was only preliminary to a more radical procedure, in each of them he was surprised to find the amount of glandular involvement, an amount which quite precluded the idea of undertaking any operation for the removal of the mass. Not only were the retro-peritoneal glands along the lymph vessels involved, but even those as high up as the sigmoid flexure. He abandoned the idea of removing the mass, because he could not claim it to be a rational operation to remove the primary mass, while knowing such an amount of cancer to be distributed throughout the lymphatic glands of the abdomen. In another patient, from whom he removed about four inches of the rectum, he dissected away a lot of glands from the hollow of the sacrum, and yet he could feel other glands beyond which he could not reach; that

patient died seven months after the operation. These cases made him look upon cancer of the rectum as much more unfavourable for operation than he had previously done, and it was quite a relief to find that, in some cases at least, cancer went on to death without involving the glands of the abdomen. Moreover, he thought that it was one very strong reason for doing an inguinal colotomy inasmuch as it enables one to determine the nature of the mass, a small portion of which only could be explored from the rectum.

Fibroid Pancreas.

Dr. BELL exhibited an enlarged and fibroid pancreas removed from the body of a girl 17 years of age.

The clinical history was briefly as follows: Some seven or eight years ago she had suffered from effusion into the right pleural cavity, without acute symptoms, and a year or two later had had a mild attack of jaundice. Since that time she had been delicate and her appetite had been irregular and fastidious. Early in May, 1895, the abdomen was found to be filled with fluid and a large quantity of ordinary ascitic fluid was removed by tapping. The peritoneal cavity rapidly refilled and was again evacuated by tapping about a week later. On the 18th of May the abdomen was tapped for the third time, and careful examination through the thin and relaxed abdominal walls failed to discover anything abnormal. The fluid withdrawn gave no clue to the condition when examined. After this tapping there was constant leakage from the needle puncture and the patient gradually sank and died on the 7th of June. At the autopsy, made by Dr. A. D. Stewart, of Richmond, the only abnormal condition discovered was the fibroid pancreas closely adherent posteriorly, and greatly constricting the portal vein by pressure. There was no peritonitis, and all the other organs were normal.

Dr. Bell attributed the mechanical compression of the portal vein, which was the direct cause of death, to an inflammatory condition—open pancreatitis—in which the contraction of the cicatricial tissue had produced this lesion, and mentioned a case in which a localized contraction of the jejunum had led to intestinal obstruction in a young man two years after a heavy fall upon his back while skating; also a similar localized condition of the superior vena cava.

Milk Sterilization.

Dr. BLACKADER read a paper on this subject which appeared last month.

The PRESIDENT thought the milk was too much blamed, that dirty bottles sometimes had much more to do with the large number of deaths. The quality of the milk in all our towns throughout Canada

was pretty good and one had only to turn up the bulletins of the public analyst at Ottawa and he would get the names of several hundred dealers in each town, with the quantity of fat, of albumenoids and water, and the average of these was very constant. The average milk in the Province of Quebec was rather rich in fats, it generally runs up between 4 and 5 per cent., and the total of the solids amounts to 13. This was higher than the published standards in England, which had only about 3 per cent. of fats.

The President asked if boracic acid or salicylic acid, which were useful in making milk antiseptic, were used, or whether any harmful results followed their use. He often found small doses of salicylic acid prove very efficacious in arresting these summer diarrhœas.

Dr. KENNETH CAMERON made some remarks on the method employed for feeding infants at the Montreal Foundling and Infants' Nursery. This year all starchy foods have been given up and the modified milk as suggested by Rotch has been used, the different constituents being altered to suit the different cases. The formula employed was: Milk, 2 ounces; cream, 3½ ounces; sugar of milk, 6¾ drachms; water, 9½ ounces. This mixture is put into the feeding bottles, which are placed in the sterilizers and kept at a temperature of 170° F. for twenty minutes and then allowed to cool, when lime water is added in the proportion of two ounces to the pint. He had examined the milk as received from the dealer and had found that it varied from day to day in the percentage of cream and the specific gravity—neither was the milk sterile as sometimes observed from the condition of the cans. Until we can know the different proportions of the elements in milk we will not be able to feed children with any sort of scientific exactitude. He felt that if dairies were conducted on the strictest aseptic principles much of the sterilizing and pasteurizing might be done away with.

Dr. T. W. MILLS stated that recent investigations had shown that milk was a most complex fluid, and that it must be remembered that it thus formed a mixed meal, different parts of which might disagree with different children. He did not think that sterilization was going to solve the question of milk feeding.

Stated Meeting, June 28th, 1895.

G. P. GIRDWOOD, M.D., PRESIDENT, IN THE CHAIR.

Gangrenous Drug Eruption.

Dr. SHEPHERD showed a man who was the subject of a remarkable eruption, supposed to be due to sodium salicylate. The eruption was now passing away, but large granulating patches were seen on the

arms and each shoulder, which were due to sloughing of the skin. Dr. Shepherd said that the fact that these grave effects were due to the drug might be disputed and that the lesions might be attributed to peliosis rheumatica, as it was well recognized that occasionally in this disease gangrene of the skin supervened. The history of the case is as follows: A. B., æt. 30, came to the hospital on May 8, 1895, suffering from a synovitis of the left knee due to traumatism. The knee was treated with cold applications and apparently improved. Three days later the right knee became swollen, hot and painful; later the ankle-joints were affected similarly, and also the elbows and wrists. Thinking now the case was one of rheumatism, and whilst waiting the patient's transference to the medical wards, sodium salicylate in gr. xx. doses was ordered. Next day on visiting the ward the man's legs were found to be covered with a well-marked urticarious eruption; supposing this to be due to the drug it was immediately stopped, the man having only taken three twenty-grain doses. Next day the face and arms were covered with a similar eruption and spots were seen in the mouth, soft palate, etc. The uvula was much swollen and the larynx was also affected and the patient had great difficulty in breathing and was almost voiceless. Now the character of the eruption began to change, the wheals on the legs disappeared and ceased itching, but in their place were ecchymosed patches with some degree of infiltration. Over the loins, buttocks and shoulders these spots were of large size and ran together; on the arms and shoulders the spots were the size of the palm of one's hand and had a red and angry looking areola. The temperature rose to $102\frac{1}{5}°$; the face was so swollen he could not see out of his eyes, and the mouth had gangrenous spots in it. The throat was so inflamed he could not swallow. On the legs, back and buttocks the ecchymosed spots began to fade and go through the stages of a bruise, but on the shoulders they became blacker and blebs appeared on them. Soon a well marked line of demarcation surrounded the patch and it began to separate from the surrounding skin. After some three weeks his condition began to improve, the throat became less inflamed, the voice less husky, breathing became less difficult and the gangrenous skin came away, leaving the condition the patient presented as shown to the Society. A week before the sloughs separated patient had another slight urticarious rash on the abdomen which soon disappeared. This latter outbreak made Dr. Shepherd think that after all the drug was not the cause of the rash and that it might be a case of peliosis rheumatica, but against this was the fact that the joint lesions preceded the ecchymosis and that the first manifestation was urticaria.

Dr. Shepherd said that sodium salicylate was well known to produce urticaria, sometimes with ecchymosis, but the occurrence of gangrene in these cases had not been heretofore noted. It is well known that the acute inflammations of the skin, due to quinine poisoning, sometimes go on to gangrene, but that sodium salicylate caused this result was not known to him.

Dr. F. W. CAMPBELL thought the eruption was due to the drug. Although a drachm of salicylate of soda seemed a small quantity to work such mischief, there were idiosyncracies where drugs in small doses had strong effects in certain individuals. Five grains of calomel sometimes produced salivation. He was not inclined to attribute it to any peculiar rheumatic tendency in this individual.

Dr. SHEPHERD said he did not think the smallness of the dose had much to do with the effect of the drug when the patient was the subject of such idiosyncrasies. He had seen half a grain of quinine cause an acute scarlatiniferous rash of the whole surface of the body, followed by complete desquamation, and hair washes containing quinine have been known to cause acute dermatitis. The man had an operation performed some years before for severe pain. It was thought he had a stone in his kidney, so Dr. Shepherd cut down, but found nothing. The man was, however, cured of his pain and has remained cured. When the man was admitted to the hospital he was in ordinary good health and had been so previously.

Rupture of the Intestine.

Dr. BELL presented a specimen showing rupture of the small intestine. The patient, a strong, healthy man aged 42, while working in a saw-mill was struck on the right side of the abdomen by a board as it flew from the saw. The accident happened at 4 p.m. on Friday, the 21st of June. He did not feel badly for a few minutes and continued his work, but in about fifteen minutes he was seized with such severe pain that he could hardly get to his home or get to bed when he got there. He was seen by a physician, who ordered him two purgative pills. These were repeated at midnight and again the next morning (six in all) and several enemata, but neither pus nor fæcal matter had passed from the time of the injury. He began vomiting that night. The obstructive symptoms continued and he came to the hospital on Tuesday, the 25th of June, about mid-day, nearly four days after the injury. He was then in a condition of advanced peritonitis; the vomiting, liquid, sour and foul-smelling; the abdomen distended and tender; the face sunken and the skin dull and livid. No physical signs except that a mass obstructed the right internal abdominal ring. Pulse 124, temperature 99° F. Operation was advised as a last re-

sort. On opening the abdomen to the right of the right rectus muscle and down to the internal ring, the frontal peritoneum was found to be gangrenous, the intestine dark and deeply congested; great matting together of coils of small intestine in the pelvis with thick flakes of lymph. The portion of gut presented showed two large rents out of which liquid fæces flowed. A large quantity of similar liquid fæcal matter was walled up in the pelvis (about a pint and a half at least). This portion of intestine was resected and the ends united by Murphy's button. The patient lived about ten hours after operation.

Dr. Bell referred to a similar case in which he had removed the specimen post-mortem, the rupture having been caused by a kick in the abdomen (by a policeman). In this case the patient lived only fourteen hours after receiving the blow.

Dr. Bell also exhibited a mass of omentum which he had removed from the sac of an umbilical hernia. The mass weighed 18½ oz. and was adherent in many places to the sac.

Fracture of Tibia.

Dr. J. ALEX. HUTCHINSON related the following history: Mrs. G., aged 60 years, French-Canadian, was admitted to the Montreal General Hospital, on May 27, 1895, suffering from fracture of the leg. On May 16th she fell while walking in her house and remained unconscious for twenty-four hours. On recovery she had no power over the left leg below the knee. Sinapisms were applied to the back of the leg and later she was brought to the hospital. Has always been a strong, healthy woman; never had epilepsy; at times used liquor to excess. During her residence in hospital she remained in a semi-comatose condition; suffered little pain in injured limb, which could be freely examined; had to be tied in bed.

On examination a well-marked deformity in left leg was seen, having the appearance of a backward dislocation of the knee. Fracture of the tibia close to the knee-joint and of the fibula in the upper third was made out. Reduction was not successful. and as the patient's general condition was hopeless a comfortable splint was applied. Owing to a large sacral decubitus the patient was placed on a water bed till she died on May 27th.

Since examining the bones after death further efforts have been made to find a satisfactory cause, but the relatives assure me the only injury received was due to a fall to the floor from the erect position.

Dr. E. P. WILLIAMS reported the pathological condition: The tuberosities of the tibia were separated from the shaft by a fracture passing from above the anterior tubercle to a lower level on the pos-

terior surface and separated from each other by a central fracture passing through the spine to meet the first. The articular surfaces of the tuberosities were opposed to the extreme posterior articular portions of the condyles of the femur when the leg was extended, and the sharp anterior point of the shaft represented by the tubercle had forced its way into the joint between the tuberosities, and by motion had grooved the cartilage of the internal condyle from before backwards. Between and around the fractured bones was a mass of fibrous callus with considerable calcification, but no bony union. Many of the ligaments were partly calcified. At one point between the external tuberosity and the spine, and communicating with the joint, was a cavity about the size of a hazelnut, with smooth, thickened fibrous walls filled with soft, red blood-clot. There was no fracture of the fibula. The popliteal and larger arteries were calcified and the valves of the heart and the aorta were atheromatous.

Many cases of transverse fracture below the tuberosities with splitting of the upper fragment are reported due to a fall on the feet from a height.

Two Cases of Volvulus.

Dr. R. C. KIRKPATRICK read a paper on this subject, which will appear in a later number.

Dr. F. J. SHEPHERD said he was not at all convinced that these were cases of volvulus. In absence of any other explanation he fancied that this diagnosis had been made. He had himself opened the abdomen in several cases where there was collapsed bowel with apparent constriction, and although the patients recovered after operation, he never was satisfied that the cases were due to twisting of the bowel. Some of these cases were difficult to explain. It was easy enough to understand a volvulus of the large bowel, but a volvulus of the small bowel was not so easy to imagine. Perhaps the disturbance produced by the opening of the abdomen and searching for the cause of the trouble might have been sufficient to release the twist in the intestine, but this did not seem likely to be the case in those patients whose symptoms of obstruction were very severe before operation.

Dr. G. E. ARMSTRONG had been present at these operations, and thought that if it had not been for Dr. Kirkpatrick's prompt action serious trouble might have arisen. Opening the abdomen was the correct thing to do in these cases. Of course, as Dr. Shepherd said, it was hard to be positive that it was volvulus. He had opened the abdomen frequently, found a constriction, then distention, and then another constriction, but could not find the cause of the constriction.

In one case, as the bowel was brought out, it seemed to twist round very naturally, and its appearance seemed to suggest a twist on its own axis rather than anything else.

Dr. JOHNSTON referred to the fact that in cases of intestinal obstruction death might occur very early. He had in one case been called upon to perform a medico-legal autopsy upon an old woman supposed to have died of irritant poisoning, who was not known to be seriously ill and had been at work until within a few hours of her death. The autopsy showed a cancerous stenosis of the rectum, with great distension of both small and large bowels. In another case, that of a young man, death occurred within twelve hours of the onset of the symptoms—vomiting, constipation and abdominal parietes, which appeared due to indigestion. At the autopsy the point where the distension commenced could be readily made out in the small intestine, but no adhesion or other organic disease likely to cause obstruction could be made out.

A Case of Ichthyosis Treated by Thyroid Extract.

Dr. W. E. DEEKS reported this case. (See page 114 of the August number.)

Dr. F. J. SHEPHERD asked how long this condition of the skin had lasted and if it was a congenital affection. Did the girl perspire? Ichthyosis is of course a congenital affection, or at any rate comes on soon after birth. If this case was cured by thyroid extract it is certainly remarkable, and another triumph is added to the many now claimed for this wonderful remedy. Cure of ichthyosis is almost unknown, though temporary amelioration may always be obtained by the daily use of soap tinctures followed by the rubbing in of any fatty matter. The case is well worth reporting and following up, and Dr. Deeks should, if possible, bring her before the Society, or report the progress of the case after several months have elapsed.

Gas Asphyxiation Treated by Inhalation of Oxygen.

The PRESIDENT communicated a report of this case by Dr. J. Shillington, of Ottawa (will be published), and stated that the principal point of interest was in the prompt success following the administration of oxygen when other means were failing. An interesting point was the face becoming black during the inhalation, which he supposed was due to the increased quantity of carbon dioxide formed in the presence of oxygen and circulating in the blood.

Dr. T. W. MILLS did not agree with the explanation offered by the President. Some years before, he had suggested the method of treatment used by Dr. Shillington, but experiments upon animals had

shown oxygen to be no more efficient than air in cases of asphyxiation.

Dr. S. R. McKENZIE related the account of a case of an old woman asphyxiated by illuminating gas, who was brought to the Montreal General Hospital in a comatose condition. The patient did not react to the Faradic current. After the forced inhalation of many gallons of oxygen the patient revived in about four hours. About a year previously, Dr. McKenzie stated, a much more favourable case had been lost, a young man who died after twelve hours continuous treatment by artificial respiration and stimulants. He had had no oxygen to give him, but he now kept over one hundred gallons and applied it with a nitrous oxide inhaling apparatus.

DISTRICT OF ST. FRANCIS MEDICAL ASSOCIATION.

On the 8th of July the above named Association held its regular meeting at Sherbrooke, P. Q. The following gentlemen were present: Drs. N. A. Dessault, I. Fregeau, F. Pare, J A. M. Elie, W A. Farwell, F. J. Austin, A. N. Worthington, P. Pelletier, J. F. Rioux, J. O. Camirand, Sherbrooke; A. G. H. Beique, W. W. Chalmers, Magog; Thomas LaRue, W. A. Stenning, L. C. Bachand, C. N. Stevenson, Coaticook; W. H. Cooke, D'Israeli; R. A. D. King, Compton, and C. J. Edgar, North Hatley. The President, R. A. D. King, was in the chair. The meeting was opened at 2.30 p.m.

After some discussion the report of the proceedings of the last meeting was adopted on motion by Dr. Austin, seconded by Dr. Stenning.

Dr. C. J. Edgar, North Hatley, then read some interesting and instructive notes on two cases met with in practice. The first case illustrating the occasional dangers of intra-uterine injections of mercuric chloride, and indicating the precautions to be used in this method of treatment. The second case is one of fracture of the body of the scapula, due solely to muscular contraction, this being only the second or third case of the kind mentioned in our medical works.

Dr. A. G. H. Beique, Magog, communicated some very useful notes on the use of "Nuclein," a new remedy recently introduced into practice. Dr. Beique is extremely well satisfied with the results already obtained through this preparation, and although his experience is necessarily very limited in its use, he does not hesitate to recommend it to his fellow-practitioners. He will continue the use of "Nuclein," and will give the results of his experience at the next meeting of the Association.

Dr. L. C. Bachand, Coaticook, read an instructive paper on the treatment of uterine diseases by electricity. Amenorrhœa, dysmenorrhœa, endometritis, fibroids, the doctor says, are more amenable to treatment by this method than by any other. In his opinion he has obtained far greater success by electricity than by the curette.

On motion of Dr. C. N. Stevenson, seconded by Dr. Rioux, a vote of thanks was tendered Drs. Edgar, Beique and Bachand for their able and instructive papers.

Dr. F. Pare made a few remarks concerning the resolutions passed in September, 1894, and which he had been requested to submit to the Provincial Board at its nearest meeting. He was greatly pleased

to be able to state that the suggestions of our Association had been extremely well received by the said board, and that our wishes would in all likelihood be acceded to. The doctor resumed his seat amid the applause of the members.

A question of unprofessional conduct was again brought up. After a few remarks by several members the question was ruled out of order by the President, all such matters having to be submitted to the Council of the Association.

It was moved by Dr. P. Pelletier, seconded by Dr. A. G. H. Beique, "that it is the wish of this Association that fees due medical men for attending coroner's inquests be in the future paid through the prothonotary of the district, and that the Secretary be instructed to write to the Attorney-General to that effect."

It was moved by Drs. C. N. Stevenson and C. J. Edgar, seconded by Drs. W. A. Stenning and W. A. Farwell, "that it is the desire of the Medical Asociation of the District of St. Francis that Drs. F. J. Austin, L. C. Bachand and J. O. Camirand be elected governors of the College of Physicians and Surgeons of the Province of Quebec to represent our district, and that the Secretary of this Association be instructed to send a copy of this resolution to the registrar of the college, that the same may be submitted to the board at its first meeting."

It was moved by Dr. L. Bachand and seconded by Dr. J. A. M. Elie, "that in the future it would be advisable that, in rotation, a new member should be elected to the board every three years."

Dr. Beique moved, seconded by Dr. Pelletier, that the resolutions passed by this Association in September last asking the Board of Governors to allow each district to elect its own representatives to the said board be again submitted to the Provincial Board with the request that it be seriously considered.

Drs. W. A. Farwell, R. A. D. King, A. N. Worthington, A. G. H. Beique and F. Pare will read papers at the next meeting of the Association to be held in Sherbrooke in the early part of September next.

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CANADIAN MEDICAL ASSOCIATION.

The thirty-ninth meeting of this Association was held in Kingston, Ont., on the 28th, 29th and 30th August, and was considered to be more than ordinarily successful. All the Provinces of the Dominion, with the exception of Manitoba and British Columbia, were well represented. Some one hundred and thirty members registered in the Treasurer's book. The papers were numerous and well selected. The President's address was admirable, and, notwithstanding his eighty-one years, delivered in a voice strong enough to fill the convocation hall of Queen's University, where the general meetings were held. The addresses on Surgery and Medicine fully sustained the well established reputations of the gentlemen who delivered them. There was a general feeling throughout, however, that the majority of the papers presented were too lengthy, occupying in many cases nearly an hour in the reading. This is a constant source of complaint and should be remedied if possible. A good rule to establish would be, that no address should occupy a longer time than forty minutes, and no paper a longer time than twenty minutes. The papers should be short, crisp and suggestive, being intended really to form a text for discussion. After all, the discussions constitute the most interesting and instructive element in these meetings, giving every one an opportunity of taking part. The plan already adopted of selecting special subjects for discussion is an admirable one, although the impression gets abroad that those only mentioned on the programme are expected to speak; whereas all should be invited to take part.

The social events in connection with this meeting of the Association were well planned and admirably carried out. The reception given by Dr. and Mrs. Fowler on the afternoon of the first day was largely attended and thoroughly enjoyed. The excursion through the Thou-

sand Islands, which occupied the whole afternoon and part of the evening of the second day, was, to say the least, a delightful outing. The profession of Kingston deserve the thanks of the Association for their lavish hospitality. Under the circumstances it would be hardly fair to criticise, but we cannot refrain from expressing some regret that the too limited time of these meetings is often seriously encroached upon by entertainments furnished through the kindness of the local profession. We would suggest that all such be deferred in future until the afternoon or evening of the third or last day of meeting. This arrangement would, at any rate, meet the wishes of the great majority, who come for work only.

The nominating committee, which was fully representative, after some discussion, selected Montreal as the next place of meeting. It was really Toronto's turn, but the gentlemen present who spoke for the profession in that city waived their claim, preferring, for special reasons, to entertain the Association the year following. Dr. Thorburn, a Toronto member, was, however, recommended for the presidency. The meetings held in this city have generally proved to be fairly successful, and we have no reason to think that the one forthcoming will be any exception to the rule.

TESTIMONIAL TO SIR JOSEPH LISTER.

In the theatre of King's College Hospital, Sir Joseph Lister was last month, presented with a portrait of himself, subscribed for by a large number of his professional friends, colleagues and pupils as a mark of their personal esteem. Dr. Playfair, who presided, laid special emphasis on the testimonial being a purely personal one, in no ways to be considered as a recognition of his great scientific attainments, nor even of his position as one of the greatest benefactors of humanity the world has ever known.

At some future time that position and the benefits Sir Joseph had conferred on all the nations of the earth would be fittingly acknowledged by a memorial not national merely, but international. The presentation was made by Sir John Eric Erichsen, Bart., president of University College, London, one of Sir Joseph Lister's early instructors in Surgery, before a crowded audience of medical gentlemen from all parts of England and Scotland.

Sir John dwelt at some length upon the extraordinary progress of surgery within the past twenty-five or thirty years—a progress so great as to amount to a revolution—a change due mainly, if not entirely, to the introduction of antiseptic surgery and its adoption

and appreciation by the profession generally, not only of this country, but throughout the civilized world. That boon constituted Sir Joseph Lister one of the greatest benefactors of mankind, who by his genius and untiring research had, by his discovery of antisepsis, rendered surgery so simple as to be almost painless, and the treatment of wounds so safe that mortality had become well nigh extinguished.

While giving so much praise to the antiseptic method, he had no wish to undervalue anæsthetics, but during the twenty years between the introduction of anæsthetics and that of antiseptics the mortality had increased. It was not too much to say that what John Hunter did at the end of the eighteenth century, Joseph Lister had done at the end of the nineteenth. His discovery placed him on a level with the great philosophers and men of science of the past ages and the present day; nor was it, perhaps, unbecoming that he himself, who had been Sir Joseph's first teacher in practical surgery should have been elected to make this presentation to his dear friend and former pupil. Though they had once stood in the relation of teacher and taught, that position had long since been reversed, and he was proud to say that for the past twenty years he had been content to sit at the feet of his former pupil.

The portrait, which is the work of Mr. J. H. Lorimer, a Scottish artist, and a highly successful likeness, was then unveiled amid renewed cheering.

Sir Joseph Lister, on rising to reply, was unable to proceed for some time in consequence of the protracted applause. He said he felt almost overwhelmed by Sir John Erichsen's generous, and he feared, flattering words, and by the exceedingly kind reception which had been given them. He proceeded at considerable length to give the extremely interesting narrative of his researches and experiments at Edinburgh, Glasgow and London, giving the account of his discovery and application of antiseptic treatment and of his continuous efforts to bring it to a state of greater and still greater simplicity. In conclusion, he thanked the gentlemen who had taken part in getting up his testimonial and also the artist. It would be extreme affectation, he said, to deny that he was greatly gratified by the presence of so many of his old friends which was a proof to him that his efforts had not been altogether in vain.

The nineteenth annual meeting of the American Dermatological Society will be held in the Windsor Hotel in this city on the 17th, 18th and 19th inst. The session will be opened with an address by the President, Dr. Sherwell, of Brooklyn, after which the following

papers are announced as to be read: "Angiokeratoma of the Scrotum," "Raynaud's Disease of the Ears," report of cases by Dr. J. A. Fordyce; "Two cases of Hydroa Vacciniforme," by Dr. J. E. Graham; "Two cases of Bromide Eruption," by Dr. G. T. Jackson. At 3 p.m. there is to be a general discussion on "The Value and Limits of Usefulness of Electrolysis in Dermatology." This will be followed by a paper entitled "Dermatological Notes," by Dr. W. A. Hardaway, and another on "The Epitrichial layer of the Epidermis aud its relationship to Ichthyosis Congenita." On the 18th the session will be opened at 10.30 a.m. with a paper on "A Remarkable Drug Eruption," by Dr. F. J. Shepherd, to be followed with "A hitherto undescribed sequel of Non-Parasitic Sycosis," by Dr. J. A. Cantrell and Dr. J. F Schamberg: "The Infected Scratch and its relations to Impetigo and Ecthyma," by Dr. H. G. Klotz; "A contribution to the study of Mycetoma," by Dr. J. N. Hyde; "An unusual Bromide of Potash Eruption in a Baby," by Dr. G. T Elliot; "An Etiological Puzzle," by Dr. J. C. White, and "Studies on Dermatological Subjects," by Dr. A. R. Robinson. On the third day the session will open at 9.30 a.m. and the following papers are announced: "A unique case of Agminate Folliculitis of Parasitic origin," by Dr. M. B. Hartzell; "Note on Antiparasitic treatment of Eczema," by Dr. J. Zeisler; "The treatment of Erysipelas based upon a second series of fifty cases," by Dr. C. W. Allen; "Notes on Drug Eruptions," by Dr. J. A. Fordyce; 'A further study of Alopecia Prematura," by Dr. G. T. Elliot; "The prevalence of Germ Dermatoses," by Dr. J. White, "Symbiosis of Cutaneous Eruptions," by Dr. J. Zeisler; "Sleep in its relation to Diseases of the Skin," by Dr. L. D. Bulkley; "Exhibition of Photographs of unusual cases," by Dr. H. W. Stelwagon; "Urticaria Pigmentosa," by Dr. P. A. Morrow; "Note on the Elastic Circular Bandage," by Dr. G. H. Fox.

—Dr. F. F. Wesbrook has been appointed Professor of Bacteriology at the University of Minnesota.

We have been requested to inform our readers that the Chair of Pathology in the Faculty of Jefferson Medical College in Philadelphia is vacant.

—The *Dominion Medical Monthly* and *Ontario Medical Journal* have amalgamated forming one publication under the management of a very strong and able editorial board.

—Piano playing and the hours devoted to practising are said to cause chlorosis and the various forms of neurasthenia in young girls. How many of the victims who are compelled to listen become similarly affected ?

Obituary.

DR. E. P. WILLIAMS.

It is with feelings of deep regret that we have to announce the death of Dr. Edward Parmelee Williams, which occurred on the 8th inst. For some time past Dr. Williams' health had not been good, and friends had advised him to take a holiday and change of air, but he felt that for this summer his duties at the Montreal General Hospital demanded his remaining in town. Symptoms of septicæmia, of which the origin was obscure, made their appearance only a few days previous to his death and his strength rapidly failed. Dr. Williams was born in Ottawa in 1867; he received his education at the Collegiate Institute in that city, and commenced the study of medicine in McGill University in 1883, graduating in due course in 1887. He proved himself a good student, enthusiastic in his studies, and very popular among his classmates. After graduation he acted for a time as local surgeon to the Canadian Pacific Railway at Algoma, a position which he filled with credit. In the spring of 1889 he commenced practice in Montreal. In 1892 he was appointed assistant curator of the medical museum in McGill University, where he did much good work. In connection with this appointment he had, during the last two years, been steadily engaged in the compilation of a full and descriptive catalogue of the valuable, and, in many respects, unique collection of bone specimens in the museum. This catalogue which he had almost completed will, we trust, see the light in the not distant future. Very recently he received the additional appointments of assistant demonstrator of pathology in the University, and assistant pathologist to the General Hospital. At the time of his death he also held the appointments of attending physician to the Mackay Institute, and to the Montreal Foundling and Infant Nursery. During his few years of practice he contributed several papers to the Montreal Clinical Society and to the Montreal Medico-Chirurgical Society. In the forthcoming number of the *Journal of Pathology* there will appear an important paper, written by him in collaboration with Dr. Kenneth Cameron, upon several cases of infection by the Bacillus Pyocyaneus. These are the first recorded in America and are among the first six upon record. The more popular facts in connection with their investigations were contained in a paper contributed by the joint workers to the American Public Health Association, at its meeting in Montreal last year upon "Infection by the Bacillus Pyocyaneus as a cause of Infantile Mortality." During his short residence in this city he made many

warm friends, who deeply mourn the sad fate which thus cuts short at the outset a promising career.

DR. BRISTOWE.

The death of Dr. Bristowe removes a distinguished physician of the first rank, and one who had a close professional affiliation with Canadians. His text-book was a great favourite with students and practitioners, and for so many years St. Thomas's was the hospital in London chiefly frequented by graduates of our schools. In the thirty-two years which he served as full physician scores of our young men have been benefited by his instruction and inspired by his painstaking devotion to the routine of ward work. When my class-mate, Dick Zimmerman, became Dr. Bristowe's house physician in 1873 I had frequent opportunities of making rounds with him. Anxiety that a student should gather something from each case was a conspicuous feature in his teaching. There was no hasty snap diagnosis, but in a doubtful case judgment was deferred until further study had cleared obscurities. When he did not know he frankly said so. He was often slow in accepting the sharp "finds" of house physicians. No man was ever more ready to acknowledge his mistakes. I remember at a visit to St. Thomas's, in the eighties, I think, to have seen a remarkable case of hysterical peritonitis, in which when previously in the ward he had made an erroneous diagnosis. After on of my Goulstonian Lectures in 1885, in which I had described cases of endocarditis with protracted intermittent fever, which had been attributed to malaria, Dr. Bristows came up and said that he had fallen into this error in a remarkable case which he had reported. I mention these circumstances to show the attitude of his mind—open, frank, candid and honourable.

In no respect, perhaps, was his teaching of greater value than in therapeutics. He was one of those whose skepticism about the doubtful was only equalled by his faith in the assured. In the drugs which we all must use, the trusty friends, the faithful few, he had implicit confidence, but to the countless candidates for favour which the laboratories turn out his attitude was that of a Pyrrhonist—he suspended judgment and would not harbour unwarranted opinions.

W. Osler.

Dr. Brakenridge, the brother of Jas. W. Brakenridge, Esq., B.C.L., the acting secretary of McGill College, died recently at Edinburgh, Scotland. The deceased was a well-known practitioner there, an examiner in medicine for the united colleges and attending physician to the Royal Infirmary.