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Original Communications.

PRESIDENTIAL ADDRESS.*

BY FRANCIS J. SHEPHERD, M.D.

It has been said by a well-known scientific authority that bores must be classed among the enemies of the human race, and perhaps one of the most objectionable species of this large genus is the Presidential Address Bore. One of the "privileges" of the President of this Association is to deliver the annual address; he is the victim of circumstances, and so the members of the Association must not find fault if bored. I trust, however, that what I say will not prove altogether uninteresting—at any rate if you are bored it will not be for long, for my address will have one thing to recommend it—that is, brevity.

First, let me welcome you all heartily to our city; I hope your visit will be of value to you, not only from a professional standpoint, but also from a social one. The great advantage of these meetings is not so much what one learns from the papers and discussions of the sections, but from that personal intercourse to which such occasions give opportunity—the interchange of thoughts and ideas and the estimating of our fellow-members, not only as surgeons and physicians, but as men, who, like ourselves, are doing their best in this life and trying to solve the difficult problems which are continually confronting us all. At these meetings many friendships are made which last a lifetime. As Horace says, "There is no pleasure equal to that given by a pleasant friend," and the members of the profession from the extreme limits of this great Dominion, meet and are brought together under the most favorable circumstances. Teachers meet their old pupils, and students their old companions, and, perhaps, rivals. The

* Delivered before the Canadian Medical Association, Montreal, Sept. 16th, 1902.

mystery and clouds which enveloped the old professor, who was looked upon with awe and from a distance, are now dispelled and reveal a human being even as themselves. The man who is only known by his books, or by what he has written in the leading journals, and whose opinion, perhaps, has been regarded as almost infallible, often appears as a very ordinary individual without much personality; others again, of whom we have never heard, impress us much by their force of character and the intimate knowledge of their profession which they possess. The man from the east who is slow to adopt new ideas and new methods, is rendered almost breathless by the procedures, apparently most successful, of his professional brother from the west. One reacts on the other; the pace of one is hastened and that of the other retarded, to the benefit of both.

This certainly is a great opportunity for all of us to interchange ideas, and such meetings tend to weld the profession together and to obliterate sectional jealousies. It is well sometimes to remember that we are all Canadians, as well as medical men and that our interests are those of the Empire as well as of Canada. This community of interest will be much strengthened and accentuated if the Dominion Registration Bill, which has, during the last session, been passed by the Dominion Parliament be, with the consent of the various provinces, put into force.

Dr. Roddick's Bill.

Ever since I commenced the study of medicine, in 1869, I have heard about a Dominion Registration Bill. For years, at every meeting of this Association it was discussed. Several bills were drawn up and such men as the Hon. Dr. Parker, of Halifax, Sir Charles Tupper, Dr. R. P. Howard and others, were engaged in trying to frame a bill which would be acceptable to all parties, but all in vain; failure after failure resulted, and for a time it was given up in despair. At last a champion arose who valiantly attacked the dragon and successfully vanquished him. You all know him—Dr. T. G. Roddick. I congratulate him on the courage, persistency, skill and ability with which he has pushed through his Medical Bill in the face of many obstacles. It remains now for the different provinces to pass a short act by which the Dominion Bill can be worked. The Dominion is ready for the carrying out of the provisions of the Bill as soon as the provinces agree to it, and I trust that no one province will decline to act, and so selfishly render the Dominion Bill inoperative. The first step has been taken and the first barrier overcome; let us hope now that the other obstacles will soon be removed, and then a man who has

fulfilled all the provincial requirements and passed before the Dominion Board will have the whole Empire ready for him to practice in and all the public services at his disposal. Why, I know of several cases where men, serving as surgeons during the late war in South Africa, could not attend Imperial troops because, forsooth, they had not a license to practice in Great Britain, nor could they ever hope to join the Army and Navy Medical Services.

Such a condition of things is a reflection on our citizenship and a slur on our Imperialism. It only remains for the provinces to remove the disability by accepting the Roddick Bill, and so enlarging our opportunities by throwing open practically the whole British Empire to our medical men.

Medical Progress.

It would be useless for me to attempt to describe to you the great advances that have of late been made in medical science, for you are already very familiar with them. For some time it was thought that surgery was outstripping medicine in the race for knowledge, and many regions which were in the exclusive possession of the physician were rudely annexed by the surgeon, and even yet the surgeon is not satisfied, but like the horseleech's daughter, calls for more. Only this year that disease so intimately associated with the physician and named after one—Bright's Disease—has been treated surgically, and with some success. The surgeon is still struggling for the possession of this, up until now, distinctly medical disease which the physician is not so willing to part with, waiting with his usual caution for more light.

However, medicine has not been standing still, but has made many advances and has done most magnificent work in various departments. It has fought for this knowledge with great courage and has left on the battlefield not a few heroes, who have fallen bravely fighting with their faces to the foe. I refer especially to the magnificent work done in Cuba in regard to the discovery of causes of infection of yellow fever. And what is the result? Why, a region which has been for centuries a pest-house at certain periods of the year, has become a veritable sanitarium. Yellow fever has been abolished from Cuba, because it has been proved beyond doubt by experiment that the mosquito conveyed the disease, and that if the breeding places of the mosquito were abolished and the fever patient was isolated so that mosquitos could not bite him, they could not convey the disease to others. The chief honor and praise in these investigations must be awarded to Walter Reed, Carroll and Agramonte. Good work is still going on in the

investigation of malarial fevers, and it is the hope of all of us that this troublesome and widespread disease may in time be abolished. It is useless by ordinary means to hope to destroy or rather exterminate the mosquito, but, by removing stagnant water and covering their breeding places with coal oil, and sleeping at night under nettings, the disease may be in many cases avoided; but, until we can discover some such means as inoculating the mosquito with a fatal disease and so exterminate him, malaria will be more or less always with us, especially in the tropics.

We have all heard much of the white plague (tuberculosis) in the lay and medical press, how it is propagated, how it may be prevented, how it may be cured; the world has become rather hysterical on the subject, and, no doubt, good will come of it all. But there is another plague stalking boldly in our midst, and flaunting its banners with the greatest insolence, carrying off its victims by thousands, and disabling and disfiguring thousands of others, the innocent and the guilty with a remarkable impartiality, and yet no notice is taken of it; it is silently ignored. We must not discuss it or speak of it, or suggest remedies for its extermination; like many things in the Pacific Islands, it is tabooed. We take the utmost care to prevent people catching measles, scarlet fever, chicken-pox, etc., and allow syphilis to come and go amongst us unnoticed and apparently uncared for. It is a most remarkable state of affairs. A poor leper, from whom the chance of taking the disease is small, is shunned, banished and isolated, whilst a syphilitic is allowed to spread the disease at will, without restraint. It is appalling to think of the risk we all run; the innocent suffer often more than the guilty. Because the disease is now a sexual one, although it was not so originally, we must not control it or arrest its spread, or endeavor in any way to ameliorate the condition of those unfortunates who suffer from it. Our neighbors across the line will not allow emigrants with favus to land, but welcome the syphilitic if he have a few dollars in his pocket. Is it not most illogical to build hospitals in order to protect people from measles and scarlet fever, and to allow syphilis to spread itself unchallenged? It is time that the profession took the subject up and educated the public to a better knowledge of sanitary laws.

Modern Laboratory Teaching.

In the wonderful developments of all branches of science, medicine has not lagged behind, and the world generally is becoming much interested in the many discoveries in medical science which have lately taken place. Money is being left and donated in large quantities to stimulate still further exertions

in the line of research; special sums are being set aside for the experimental study of the origin and cure of certain diseases, such as carcinoma, tuberculosis, etc., and immense amounts have quite recently been given by the multi-millionaires for the erection and maintenance of splendid laboratories which are intended not so much for the teaching of students as the encouragement of research work.

The medical school is developing into a huge system of laboratories to the exclusion of the lecture, and even the hospital; for the day has not got any longer and laboratory work takes time. We must not forget, however, that laboratories, triumphs of architecture though they be, and equipped as they are with all the most modern scientific apparatus, will not themselves produce men of science, they will only give them the opportunity of developing. Such giants as Pasteur, Lister, Koch and others, were not produced by magnificent laboratories or splendid inducements of fellowships, etc., they made their opportunities and forced nature, by the power of their intellects, to give up to them her secrets; difficulties only stimulated them to put forth still further efforts. Such men are not found at will, but they are born like poets, only occasionally. To paraphrase Sir Thomas Browne—"they do most by laboratories who could do much without them, and he that chiefly owes himself unto himself is the substantial man."

One danger of this great multiplication of laboratories is that it induces men to pursue original investigation who have not the true scientific spirit, and who are utterly unfit for such work. They frequently collect and publish a mass of useless and undigested material and therefore draw inaccurate conclusions. All this will not redound to the credit of the medical science. However, we must hope for the best, knowing a large amount of good work will be done and many valuable discoveries made. I do not wish it to be inferred that I am opposed to the addition of modern laboratories to our medical schools; they are all necessary, but they must not supplant other work quite as important to a man who wishes to become a practicing physician or surgeon. Again, we must remember that the millennium will not be brought about by laboratories, nor will all scientific problems be solved by them.

There is one laboratory which is not so much frequented now as when I was a student—I refer to the hospital wards Students, while perhaps more scientific—I say scientific, because nowadays every one who spends much of his time in a laboratory learning the use of all kinds of modern apparatus, including our old friend the microscope, is regarded as having a scientific training—I may say that students while perhaps being more scientific (microscopical and mechanical), have not that intimate

personal knowledge of disease which continued observation at the bedside gives them, so that when started in some out-of-the-way place without their scientific machinery, they are like fish out of water. It may soon be that they will not be able to diagnose a fracture without the X-rays, a suppuration without an elaborate system of cultures of the various cocci, typhoid fever without the Widal test, diphtheria without finding the Klebs-Loeffler bacillus, tuberculosis without getting bacilli in the sputum, and so on without end. Students are not taught to observe so accurately the evident symptoms of disease, and as I say, are becoming mere mechanics who need an armamentarium (which only a great hospital or university can possess) to make an accurate diagnosis of an ordinary disease, the higher and more intellectual means of drawing conclusions by inductive reasoning are almost neglected.

This mode of education may do for the few, but for the many who have to practise away from centres it is not the best method. The reason of it all is that most colleges are now managed by laboratory men, who are specialists from the start, and who have never practised medicine, and so never have appreciated the needs of students who, when they graduate, will have to earn their living by attending sick people. The practitioners who are connected with the colleges are too busy, and, not living on the premises, so to speak, give up the management gladly to those having more time and having new ideas which they wish to have carried out, especially on laboratory lines. They are eager for original investigations and encourage their men to do such and such a piece of work, forgetting that these men have first to learn the rudiments of a profession by which they have in future to make their living, and that the laboratory work is only part of their training.

In a recent address, delivered at the last meeting of the British Medical Association, Dr. William Japp Sinclair says:—"It was the devotion of the gifts of genius, of the highest intellectual endowment, to clinical investigations, which lent dignity to the labors of former generations of physicians and surgeons, and made their counsels fruitful in conferring permanent benefit on humanity. Enlightened and patient industry, and success in observation and treatment of disease, were long and tedious, but the only sure way to professional distinction and honor. But now, since the advent of the modern development of pathology, and especially of bacteriology, the unknown is accepted as magnificent by the whole medical profession, and a certain distinction can be achieved without much talent or industry; the microtome and the cultivation tube (though work connected with them often resembles a sad mechanic exercise) have provided a royal road for men into

fields of clinical work they have not known how to cultivate. They have shirked the apprenticeship to clinical medicine, yet claim the consideration and emoluments due to the skilled and experienced journeyman."

Now hospital training is most essential to a true knowledge of disease, and continual observation at the bedside, with good tutorial instruction, is a more important factor in the education of a medical man than the best and most complete knowledge of all the bacterial forms. How to properly examine a patient, how to question him so as to get all the salient points of his illness, how to observe his deviation from the normal in posture, color, expression and conduct—how to examine all his excretions and to tell how they differ from those in health, observe the character of the tongue and pulse, the breathing, etc., are essentials. After this the blood may be examined and other methods used to confirm or disprove our previously conceived idea of what the patient is suffering from. All this is much more important than a repetition of a series of experiments in laboratories and the culture of innumerable bacilli, common and rare. Mind you, I do not wish to disparage laboratory teaching—it is essential—but we can have too much of a good thing, and laboratories nowadays take up too much of the student's time in the latter years of his curriculum. The ordinary student should have a good working knowledge of laboratory methods, and this should be obtained chiefly during his first two years, but the refinements, if insisted on, will be acquired at the expense of some more useful and practical information, for the average student can only hold so much knowledge—it is hopeless to attempt to put a quart measure into a pint pot.

I would suggest that among students only a selected few be made use of for research work, and that the average man be not freighted with too much laboratory ballast, but that room be left for other kinds of cargo, the use of which may prove of great value in the voyage through life. Post-graduate medical research work should also be encouraged by every university, and opportunities given to every suitable person to continue lines of work for which he is most fitted.

In this connection I should like to read you an extract from an address delivered before the Medical Society at Oxford, in 1895, by the late Professor Sir George Humphry, of Cambridge:—"There is too great a mass of facts heaped on the memory and too little reflection on them, too great a straining after the practical and too little aspiration for the principles upon which good practice must be based. . . . The sciences of physiology and histology have become, and those of pathology and anatomy are becoming, more separated from medi-

cine, delegated to special teachers and special examiners—doubtless to the advantage and width of scope of those sciences and to the greater knowledge of them, but I fear there is hereby engendered a tendency to take the student too far afield. . . . . It is apt to lead too much to meandering in altitudes, too little to straight going upon *terra firma*; too much to pride and obtrusiveness of supposed higher knowledge, too little to reasoning and too little to power of reasoning upon simple data, and too little to that sort of reasoning which constitutes the basis of 'Common Sense.' The scientific and the practical, in short, become too much separated; what is needed is a greater regard to that connection between the two which should be maintained through the whole period of study."

Specialism.

Another tendency in medical education is specialism. In some universities they are advocating allowing men to graduate in special lines, such as ophthalmology, dermatology, medicine, surgery, gynecology, etc. This seems to me to be most pernicious, tending to develop much narrowness and also to exaggerate the importance of certain specialties, and the public will suffer accordingly. The "malade imaginaire" will always find he has something not exactly right, but what depends on the specialist he consults. Nowadays even the most advanced are agreed on the importance of acquiring the rudiments and learning the principles of medicine and surgery, and to practice them before commencing the study of any specialty. I do not say that the study of specialties such as otology, ophthalmology, gynecology and even dermatology should be neglected—on the contrary, we should study them all—but in their relation to and bearing on general medicine and surgery we should have a good working knowledge of each, but an excess of time should not be devoted to any one. A year or two of hospital work, followed by some experience in general practice, should be managed by anyone who wishes to become a broad-minded specialist. In this way he gets a wider grasp of medicine and is less liable afterwards, when he gravitates to a specialty, to run in such narrow grooves.

It is the fashion now for men to go into medicine purposely to become specialists, not that they have any particular aptitude or leaning toward their special choice, but because the opportunities for making money are greater and their time will be their own—they only learn enough medicine and surgery to qualify for a degree. Such a training, although it may be a financial success, will tend to bring the practice of medicine down to a mere trade, and the higher and nobler instincts which ought to stimulate a professional man will be no more seen amongst us.

Quackery.

I had intended touching at length on the various quackeries which are now so rampant among the most civilized nations and amongst their most cultivated classes, but time warns me I must be brief. I refer to such things as Christian Science, mental science, spiritualism, vitapathy, osteopathy and such like—but perhaps they have their uses in this rapid and restless age—they probably are a vent for people who would otherwise have to be confined in asylums at a great expense to the public. Could any individual write such a lot of stuff as the following without there being a suspicion of insanity in the case? "If I believe in the power of disease, my thought atmosphere could not heal a patient. Disease has no power of its own but only as much power as our ignorance concedes to it. Disease is ignorance, intelligence is cure. Disease is but a negation of the ubiquitous life principle. This life principle has taken entire possession of me and my thoughts, I live in it. I am it" Such stuff as this, *ad infinitum*, is read and believed in by thousands—believed in, but not understood. Education will not abolish belief in quacks and quackery. I wrote an article on quackery many years ago, which was published in the *Popular Science Monthly*, and I closed with the following quotation, which seems appropriate on the present occasion: "The final though distant extinction of quackery is to be hoped for. It forms a fragment of that final triumph of reason and virtue which is the secret consolation of every philanthropist."

It is partly due to the profession itself that quackery flourishes. So many men who are unfit for the profession enter it and look on it as a business to make money, honestly perhaps, if possible, but to make it even if the credulity of the public is drawn on. Many of the doctors who write to papers like the *Alkaloidal Clinic*, the *Medical Short-cut* and others of such a character, have a most misty idea of their profession and apparently are ignorant enough to deceive themselves as well as the public. I fancy they practice all the pathys,—one man from Texas asks the editor if he has anything that is a "dead shot" for eczema, another asks what is the most up-to-date scientific caper for goitre, and so on; one specimen of sputum from an old lady, which was sent to the editor for examination, contained tubercle bacilli, diplococci, pneumo-bacilli, saprophytes and pus cells. Another patient, from the writer's description of her case, is diagnosed as having an extra vulnerability and an extra colony of microbes in her mouth. Such is the literature many feed upon, always looking for tips and sure cures, never accurately diagnosing the disease and always

changing treatment. Is it any wonder that quacks flourish? It is a curious thing, however, that our medical laws seem unable to cope with quacks, but, if a man who has had a regular training has not obtained his license, he is immediately hauled up and fined.

The King's Illness.

I fear I have trespassed on your time long enough, and I must bring this rather disconnected address to a close. I cannot, however, close without referring to the comparatively recent serious illness of our beloved Sovereign. The result in his case is most satisfactory, and is a triumph for modern surgery; let all credit be given to the able and wise physicians and surgeons who directed his case. The rewards of the medical profession are not many, nor are they of the highest grade, but in the late award of honors medical men were not forgotten, and those in closest attendance on the King received their share. The responsibilities attaching to the medical attendants were more than usual, and very much depended on their advice as to the most proper and safest procedure. The proper path was chosen, and for the time they are praised beyond measure, but unfortunately medical favors are soon forgotten.

> "Three faces the Phisition hath;
> First as an Angel he,
> When he is sought; next when he helpes
> A God he seems to be;
> And best of all, when he hath made
> The Sicke, diseased well
> And asks his guerdon, then he seems
> An oughly Fiend of Hell."

The future of the medical man, however, is bright, and his position in the State is advancing as the necessity for employing him for the solution of all hygienic and sanitary problems becomes evident. In the wars of the future the winning of battles will be of no avail or impossible without an efficient medical service and no government will be complete without a department of public health presided over by medical men.

To enable our profession to obtain the respect and consideration of the public, we must stand shoulder to shoulder, and be true to ourselves. We must act so that no one can point the finger of scorn at us. We must not coquette with anything that has even the appearance of quackery. We must work for the love of our profession, and not for the mere object of getting money. We must neglect no opportunities of meeting together and so increasing our knowledge and stimulating our desire for knowledge. Above all, we must see that in the future none but men of the highest character, and who have

had a proper preliminary training be allowed to enter into the profession of medicine.

Obituary.

Since we last met we have lost several valuable members; two especially will be missed, namely, Wyatt G. Johnston, of Montreal, and Wm. S. Muir, of Truro. Dr. Johnston, one might say, died on the battlefield, for he succumbed to sepsis contracted in his ordinary work. He had just been appointed the Professor of Hygiene and State Medicine in McGill University, and a long and successful occupation of the chair was hoped for. He had done much original work already as assistant professor, and in pathology he had made a world-wide reputation. Wyatt Johnston was in some respects a genius—he had the modesty, great originality and capacity for work, which distinguishes such men. He was, if anything, too fertile in ideas, and had so many ventures on the sea of experiment that some of them necessarily came to grief; not because they were Utopian or impracticable, but because there was not time to work them out. At the Montreal General Hospital he had the confidence and love of his colleagues and his opinion was final on a pathological question. As an expert in the coroner's court he was looked upon as a safe authority and his evidence was never prejudicial and partisan, but was, as scientific evidence ought to be, impartial. He much impressed judges and lawyers with his honesty, sincerity and accurateness. We only occasionally find such men, but in their short lives they often accomplish more than many others who have exceeded the prescribed threescore years and ten.

William Scott Muir has also gone from amongst us. His cheerful countenance and portly form we miss here to-day; he was one who had for many years past regularly attended these meetings, and by his genial disposition and practical common sense endeared himself to all with whom he came in contact. He was a man of affairs and took the greatest interest in everything pertaining to the advancement of the profession; he was always wise in counsel, and in scientific discussion had the faculty of going to the root of the matter and stripping the subject of unnecessary accessories. He was an able practitioner and much beloved by his patients. He gained their confidence by his transparent honesty, and was always welcomed by his colleagues wherever he went and always found friends. He was a distinct personality and one the medical profession can ill afford to lose—his works will follow him.

Dr. Brunelle, surgeon of the Hotel Dieu Hospital, has also been suddenly removed from amongst us. He was an able surgeon and teacher, and will be much missed by his colleagues, by whom he was held in the highest regard.

CHAUVINISM* IN MEDICINE.

THE ADDRESS IN MEDICINE, CANADIAN MEDICAL ASSOCIATION, MONTREAL, SEPTEMBER 17TH, 1902.

BY WILLIAM OSLER, M.D., F.R.S.,
Professor of Medicine, Johns Hopkins Hospital, Baltimore.

A rare and precious gift is the Art of Detachment, by which a man may so separate himself from life-long environment as to take a panoramic view of the conditions under which he has lived and moved, and that frees him from Plato's den long enough to see the realities as they really are, the shadows as they appear. Could a physician attain to such an art he would find in the state of his profession a theme calling as well for the exercise of the highest faculties of description and imagination as for the deepest philosophic insight. With wisdom of the den only and of my fellow-prisoners, such a task is beyond my ambition and my powers, but to emphasize only the subject that I wish to bring home to your hearts I must first refer to certain distinctive features of our profession:

I. FOUR GREAT FEATURES OF THE GUILD.

Its noble ancestry.—Like everything else that is good and durable in this world, modern medicine is a product of the Greek intellect, and had its origin when that wonderful people created positive or rational science, and no small credit is due to the physicians who, as Professor Gomperz remarks (in his brilliant chapter On the Age of Enlightenment, "Greek Thinkers," Vol. 1), very early brought to bear the spirit of criticism on the arbitrary and superstitious views of the phenomena of life. If science was ever to acquire "steady and accurate habits instead of losing itself in a maze of phantasies, it must be by quiet methodical research." "It is the undying glory of the school of Cos that it introduced this innovation into the domain of its Art, and thus exercised the most beneficial influence on the whole intellectual life of mankind. Fiction to the right! Reality to the left! was the battle cry of this school in the war it was the first to wage against the excesses and defects of the nature philosophy" (Gomperz). The critical sense and skeptical attitude of the Hippocratic school laid the foundations of modern medicine on broad lines, and we owe to it: first, the emancipation of medicine from the shackles of priestcraft and of caste; secondly, the conception

* Definition: A narrow, illiberal spirit in matters national, provincial, collegiate or personal.

of medicine as an art based on accurate observation, and as a science, an integral part of the science of man and of nature; thirdly, the high moral ideals, expressed in that most "memorable of human documents" (Gomperz), the Hippocratic oath: and fourthly, the conception and realization of medicine as the profession of a cultivated gentleman.* No other profession can boast of the same unbroken continuity of methods and of ideals. We may indeed be justly proud of our apostolic succession. Schools and systems have flourished and gone, schools which have swayed for generations the thought of our guild, and systems that have died before their founders; the philosophies of one age have become the absurdities of the next, and the foolishness of yesterday has become the wisdom of to-morrow; through long ages which were slowly learning what we are hurrying to forget; amid all the changes and chances of twenty-five centuries, the profession has never lacked men who have lived up to these Greek ideals. They were those of Galen and of Areteus, of the men of the Alexandrian and Byzantine schools, of the best of the Arabians, of the men of the Renaissance, and they are ours to-day.

A second distinctive feature is the remarkable solidarity. Of no other profession is the word universal applicable in the same sense. The celebrated phrase used of the Catholic church is in truth much more appropriate when applied to medicine. It is not the prevalence of disease or the existence everywhere of special groups of men to treat it that betokens this solidarity, but it is the identity throughout the civilized world of our ambitions, our methods and our work. To wrest from nature the secrets which have perplexed philosophers in all ages, to track to their sources the causes of disease, to correlate the vast stores of knowledge, that they may be quickly available for the prevention and cure of disease—these are our ambitions. To carefully observe the phenomena of life in all its phases, normal and perverted, to make perfect that most difficult of all arts, the art of observation, to call to aid the science of experimentation, to cultivate the reasoning faculty, so as to be able to know the true from the false—these are our methods. To prevent disease, to relieve suffering and to heal the sick—this is our work. The profession in truth is a sort of guild or brotherhood, any member of which can take up his calling in any part of the world and find brethren whose language and methods and whose aims and ways are identical with his own.

Thirdly, its progressive character. Based on science, medicine

* Nowhere in literature do we have such a charming picture illustrating the position of a cultivated physician in society as that given in Plato's Dialogues of Eryximachus, himself the son of a physician, Acumenus. In that most brilliant age the physician was the companion and friend, and in intellectual intercourse the peer of its choicest spirits.

has followed and partaken of its fortunes, so that in the great awakening which has made the nineteenth memorable among centuries, the profession received a quickening impulse more powerful than at any period in its history. With the sole exception of the mechanical sciences, no other department of human knowledge has undergone such a profound change—a change so profound that we who have grown up in it have but slight appreciation of its momentous character. And not only in what has been actually accomplished in unravelling the causes of disease, in perfecting methods of prevention and in wholesale relief of suffering, but also in the unloading of old formulæ and in the substitution of the scientific spirit of free enquiry for cast-iron dogmas we see a promise of still greater achievement and of a more glorious future.

And lastly, the profession of medicine is distinguished from all others by its singular beneficence. It alone does the work of charity in a Jovian or God-like way, dispensing with free hand truly Promethean gifts. There are those who listen to me who have seen three of the most benign endowments granted to the race since the great Titan stole fire from the heavens. Search the Scriptures of human achievement and you cannot parallel in beneficence anesthesia, sanitation, with all that it includes, and asepsis—a short half-century's contribution towards the practical solution of the problems of human suffering, regarded as eternal and insoluble. We form almost a monopoly or trust in this business. Nobody else comes into active competition with us, certainly not the other learned professions, which continue along the old lines. Every few years sees some new conquest, so that we have ceased to wonder. The work of half a-dozen men, headed by Lavern, has made waste places of the earth habitable and the wilderness to blossom as the rose. The work of Walter Reed and his associates will probably make yellow fever as scarce in the Spanish main as is typhus fever with us. There seems to be no limit to the possibilities of scientific medicine, and while philanthropists are turning to it as the hope of humanity, philosophers see, as in some far-off vision. a science from which may come in the prophetic words of the Son of Sirach, "Peace over all the earth."

Never has the outlook for the profession been brighter. Everywhere the physician is better trained and better equipped than he was twenty-five years ago. Disease is understood more thoroughly, studied more carefully and treated more skilfully. The average sum of human suffering has been reduced in a way to make the angels rejoice. Diseases familiar to our fathers and grandfathers have disappeared, the death rate from others is falling to the vanishing point, and public

health measures have lessened the sorrows and brightened the lives of millions. The vagaries and whims, lay and medical, may neither have diminished in number nor lessened in their capacity to distress the faint-hearted who do not appreciate that to the end of time people must imagine vain things, but in the light of the colossal advances of the past fifty years, what are they but flies on the wheels of progress?

So vast, however, and composite has the profession become that the physiological separation, in which dependent parts are fitly joined together, tends to become pathological, and while some parts suffer necrosis and degeneration, others, passing the normal limits, become disfiguring and dangerous outgrowths on the body medical. The dangers and evils which threaten harmony among the units are internal, not external. And yet, more than in any other profession, owing to the circumstances of which I have spoken, is complete organic unity possible. Of the many hindrances in the way, time would fail me to speak, but there is one aspect of the question to which I would direct your attention in the hope that I may speak a word in season.

Perhaps no sin so easily besets us as a sense of self-satisfied superiority to others. It cannot always be called pride, that master sin, but more often it is an attitude of mind which either leads to bigotry and prejudice or to such a vaunting conceit in the truth of one's own beliefs and positions, that there is no room for tolerance of ways and thoughts which are not as ours are. To avoid some smirch of this vice is beyond human power; we are all dipped in it, some lightly, others deeply grained. Partaking of the nature of uncharitableness, it has not the intensity of envy, hatred and malice, but it shades off in fine degrees from them. It may be a perfectly harmless, even an amusing trait in both nations and individuals, and so well was it depicted by MM. Cogniard in their play, *La Cocarde Tricolore*, 1831, one character in which was the young recruit Chauvin, that the name Chauvinism has become a by-word, expressing a bigoted, intolerant spirit.* The significance of the word has been widened, and it may be used as a synonym for a certain type of nationalism, for a narrow provincialism or for a petty parochialism. It does not express the blatant loudness of Jingoism, which is of the tongue, while Chauvinism is a condition of mind, an aspect of character much more subtle and dangerous. The one is more apt to be found in the educated classes, while the other is pandemic in the fool multitude—"that numerous piece of monstrosity which, taken asunder, seem men reasonable creatures of God, but confused together, make but

*It is by no means easy to see, after reading the play, how the name could have arisen. The nationalism displayed is of a most harmless type. In the sense here employed it has been used by standard writers, as for example, Huxley.

one great beast, and a monstrosity more prodigious than Hydra" (Religio Medici). Wherever found, and in whatever form, Chauvinism is a great enemy of progress and of peace and concord among the units. I have not the time, nor, had I, have I the ability to portray this failing in all its varieties; I can but touch upon some of its aspects. national, provincial and parochial.

II. Nationalism in Medicine.

Nationalism has been the great curse of humanity. In no other shape has the Demon of Ignorance assumed more hideous proportions; to no other obsession do we yield ourselves more readily. For whom do the Hosannas ring higher than for the successful butcher of tens of thousands of poor fellows who have been made to pass through the fire to this Moloch of nationalism? A vice of the blood, of the plasm rather, it runs riot in the race, and rages to-day as of yore in spite of the precepts of religion and the practice of democracy. Nor is there any hope of change; the pulpit is dumb, the press fans the flames, literature panders to it and the people love to have it so. Not that all aspects of nationalism are bad. Breathes there a man with soul so dead that it does not glow at the thought of what the men of his blood have done and suffered to make his country what it is? There is room, plenty of room, for proper pride of land and birth. What I inveigh against is a cursed spirit of intolerance, conceived in distrust and bred in ignorance, that makes the mental attitude perennially antagonistic, even bitterly antagonistic to everything foreign, that subordinates everywhere the race to the nation, forgetting the higher claims of human brotherhood.

While medicine is everywhere tinctured with national characteristics, the wider aspects of the profession, to which I have alluded—our common lineage and the community of interests—should always save us from the more vicious aspects of this sin, if it cannot prevent it altogether. And yet I cannot say, as I wish I could, that we are wholly free from this form of Chauvinism. Can we say, as English, French, German or American physicians, that our culture is always cosmopolitan, not national, that our attitude of mind is always as frankly open and friendly to the French as to the English, to the American as to the German, that we are free at all times and in all places from prejudice, at all times free from a self-satisfied feeling of superiority the one over the other? There has been of late years a closer union of the profession of the different countries through the International Congress and through the international meetings of the special societies; but this is not enough, and the hostile attitude has by no means disappeared.

Ignorance is at the root. When a man talks slightingly of the position and work of his profession in any country, or when a teacher tells you that he fails to find inspiration in the work of his foreign colleagues, in the words of the Arabian proverb—he is a fool, shun him! Full knowledge, which alone disperses the mists of ignorance, can only be obtained by travel or by a thorough acquaintance with the literature of the different countries. Personal, first-hand intercourse with men of different lands, when the mind is young and plastic, is the best vaccination against the disease. The man who has sat at the feet of Virchow, or has listened to Traube, or Helmotz, or Cohnheim, can never look with unfriendly eyes at German medicine or German methods. Who ever met with an English or American pupil of Louis or of Charcot, who did not love French medicine, if not for its own sake, for the reverence he bore his great master? Let our young men, particularly those who aspire to teaching positions, go abroad. They can find at home laboratories and hospitals as well equipped as any in the world, but they may find abroad more than they knew they sought—widened sympathies, heightened ideals and something perhaps of a *Welt-cultur* which will remain through life as the best protection against the vice of nationalism.

Next to a personal knowledge of men, a knowledge of the literature of the profession of different countries will do much to counteract intolerance and Chauvinism. The great works in the department of medicine in which a man is interested, are not so many that he cannot know their contents, though they be in three or four languages. Think of the impetus French medicine gave to the profession in the first half of the last century, of the debt we all owe to German science in the latter half, and of the lesson of the practical application by the English of sanitation and asepsis! It is one of our chief glories and one of the unique features of the profession that no matter where the work is done in the world, if of any value it is quickly utilized. Nothing has contributed more to the denationalization of the profession of this continent than, on the one hand, the ready reception of the good men from the old countries who have cast in their lot with us, and, on the other, the influence of our young men who have returned from Europe with sympathies as wide as the profession itself. There is abroad among us a proper spirit of eclecticism, a willingness to take the good wherever found, that augurs well for the future. It helps a man immensely to be a bit of a hero-worshipper, and the stories of the lives of the masters of medicine do much to stimulate our ambition and rouse our sympathies. If the life and work of such men as Bichat and Laennec will not stir the blood of a young man and make him feel proud of France and of French-

men, he must be a dull and muddy mettled rascal. In reading the life of Hunter, of Jenner, who thinks of the nationality which is merged and lost in our interest in the man and in his work? In the halcyon days of the Renaissance there was no nationalism in medicine, but a fine catholic spirit made great leaders like Vesalius, Eustachius, Stenson and others at home in every country in Europe. While this is impossible to-day, a great teacher of any country may have a world-wide audience in our journal literature, which has done so much to make medicine cosmopolitan.

III. Provincialism in Medicine.

We may congratulate ourselves that the worst aspects of nationalism in medicine are disappearing before the broader culture and the more intimate knowledge brought by ever-increasing intercourse, yet conditions have favored in English-speaking countries the growth of a very unpleasant sub-variety, which may be called provincialism or sectionalism. In one sense the profession of this continent is singularly homogeneous. A young man may be prepared for his medical course in Louisiana and enter McGill College, or he may enter Dalhousie College, Halifax, from the State of Oregon, and, in either case, he will not feel strange or among strangers so soon as he has got accustomed to his environment. In collegiate life there is a frequent interchange of teachers and professors between all parts of the country. To better his brains the scholar goes freely where he wishes—to Harvard, McGill, Yale or Johns Hopkins; there are no restrictions. The various medical societies of the two countries are, without exception, open to the members of the profession at large. The President of the Association of American Physicians this year (Dr. James Stewart) is a resident of this city, which gave also last year, I believe, presidents to two of the special societies. The chief journals are supported by men of all sections. The text-books and manuals are everywhere in common; there is, in fact, a remarkable homogeneity in the English-speaking profession, not only on this continent but throughout the world. Naturally, in widely-scattered communities, sectionalism—a feeling or conviction that the part is greater than the whole—does exist, but it is diminishing, and one great function of the national associations is to foster a spirit of harmony and brotherhood among the scattered units of these broad lands. But we suffer sadly from a provincialism which has gradually enthralled us, and which sprang originally from an attempt to relieve conditions insupportable in themselves. I have praised the unity of the profession of this continent, in so many respects remarkable, and yet in another respect it is the most heterogeneous ever

known. Democracy in full circle touches tyranny, and, as Milton remarks, the greatest proclaimers of liberty may become its greatest engrossers (or enslavers). The tyranny of labor unions, of trusts, and of an irresponsible press may bear as heavily on the people as imperialism in its worst form. And, strange irony of fate! the democracy of Provincial and State Boards has imposed in a few years a yoke more grievous than that which afflicts our brethren in Great Britain, which took generations to forge.

The delightful freedom of intercourse of which I spoke, while wide and generous, is limited to intellectual and social life, and, on the practical side, not only are genial and courteous facilities lacking, but the bars of a rigid provincialism are put up, fencing each state as with a Chinese wall. In the Dominion of Canada there are eight portal entries to the profession, in the United States almost as many as there are states, in the United Kingdom nineteen, I believe, but in the latter the license of any one of these bodies entitles a man to registration anywhere in the kingdom. Democracy in full circle has reached on this hemisphere a much worse condition than that in which the conservatism of many generations has entangled the profession of Great Britain. Upon the origin and growth of Provincial and State Boards I do not propose to touch. The ideal has been reached, so far as organization is concerned, when the profession elects its own parliament, to which is committed the control of all matters relating to the license. The recognition, in some form, of this democratic principle, has been one of the great factors in elevating the standard of medical education, and in a majority of the States of the Union it has secured a minimum period of four years of study, and a state examination for license to practice. All this is as it should be. But it is high time the profession realized the anomaly of eight boards in the Dominion and some scores in the United States. One can condone the iniquity in the latter country more readily than in this, in which the boards have existed for a longer period, and where there has been a greater uniformity in the medical curriculum. After all these years that a young man, a graduate of Toronto and a registered practitioner in Ontario, cannot practice in the Province of Quebec, his own country, without submitting to vexatious penalties of mind and pocket, or that a graduate from Montreal and a registered practitioner of this province cannot go to Manitoba, his own country again, and take up his life's work without additional payments and penalties is, I maintain, an outrage; it is provincialism run riot. That this pestiferous condition should exist through the various provinces of this Dominion and so many States of the Union illustrates what I have said

of the tyranny of democracy, and how great enslavers of liberty its chief proclaimers may be.

That the cure of this vicious state has to be sought in Dominion bills and national examining boards, indicates into what debasing depths of narrow provincialism we have sunk. The solution seems so simple, particularly in this country, with its uniformity of methods of teaching and length of curriculum. A generous spirit that will give to local laws a liberal interpretation, that limits its hostility to ignorance and viciousness, that has regard as much or more for the good of the guild as a whole as for the profession of any province—could such a spirit brood over the waters, the raging waves of discord would soon be stilled. With the attitude of mind of the general practitioner in each province rests the solution of the problem. Approach it in a friendly and gracious spirit and the difficulties which seem so hard will melt away. Approach it in a Chauvinistic mood, fully convinced that the superior and unparalleled conditions of your province will be jeopardized by reciprocity or by federal legislation, and the present antiquated and disgraceful system must await for its removal the awakening of a younger and more intelligent generation.

It would ill become me to pass from this subject—familiar to me from my student days from the interest taken in it by that far-sighted and noble-minded man, Dr. Palmer Howard—it would ill become me, I say, not to pay a tribute of words to Dr. Roddick for the zeal and persistence with which he has labored to promote union in the compound, comminuted fracture of the profession of this Dominion. My feeling on the subject of international, intercolonial and inter-provincial registration is this—a man who presents evidence of proper training, who is a registered practitioner in his own country and who brings credentials of good standing at the time of departure, should be welcomed as a brother, treated as such in any country, and registered on payment of the usual fee. The ungenerous treatment of English physicians in Switzerland, France and Italy, and the chaotic state of internecine warfare existing on this continent, indicates how far a miserable Chauvinism can corrupt the great and gracious ways which should characterize a liberal profession.

Though not germane to the subject, may I be allowed to refer to one other point in connection with the State Boards—a misunderstanding, I believe, of their functions. The profession asks that the man applying for admission to its ranks shall be of good character and fit to practice the science and art of medicine. The latter is easily ascertained if practical men have the place and the equipment for practical examinations.

Many of the boards have not kept pace with the times, and the questions set too often show a lack of appreciation of modern methods. This has, perhaps, been unavoidable since, in the appointment of examiners, it has not always been possible to select experts. The truth is, that however well organized and equipped, the state boards cannot examine properly in the scientific branches, nor is there need to burden the students with additional examinations in anatomy, physiology and chemistry. The Provincial and State Boards have done a great work for medical education on this continent, which they would crown and extend by doing away at once with all theoretical examinations, and limiting the tests for the license to a rigid practical examination in medicine, surgery and midwifery, in which all minor subjects could be included.

IV. Parochialism in Medicine.

Of the parochial and more personal aspects of Chauvinism I hesitate to speak; all of us, unwittingly as a rule, illustrate its varieties. The conditions of life which round us and bound us, whether in town or country, in college or institution, give to the most liberal a smack of parochialism, just as surely as we catch the tie of tongue of the land in which we live. The dictum put into the mouth of Ulysses, "I am a part of all that I have met," expresses the truth of the influence upon us of the social environment, but it is not the whole truth, since the size of the parish, representing the number of points of contact, is of less moment than the mental fibre of the man. Who has not known lives of the greatest freshness and nobility hampered at every turn and bound in chains the most commonplace and sordid, lives which illustrate the liberty and freedom enjoyed by minds innocent and quiet, in spite of stone walls and iron bars? On the other hand, scan the history of progress in the profession, and men the most illiberal and narrow, reeking of the most pernicious type of Chauvinism, have been among the teachers and practitioners of the large cities and great medical centres; so true is it, that the mind is its own place and in itself can make a man independent of his environment.

There are shades and varieties which are by no means offensive. Many excellent features in a man's character may partake of its nature. What, for example, is more proper than the pride which we feel in our teachers, in the university from which we have graduated, in the hospital at which we have been trained? He is a "poor sort" who is free from such feelings, which only manifest a proper loyalty. [illegible] it easily degenerates into a base intolerance which looks [illegible]ith disdain

on men of other schools and other ways. The pride, too, may be in inverse proportion to the justness of the claims. There is plenty of room for honest and friendly rivalry between schools and hospitals, only a blind Chauvinism puts a man into a hostile and intolerant attitude of mind at the mention of a name. Alumni and friends should remember that indiscriminate praise of institutions or men is apt to rouse the frame of mind illustrated by the ignorant Athenian who, so weary of hearing Aristides always called the Just, very gladly took up the oyster shell for his ostracism, and even asked Aristides himself, whom he did not know, to mark it.

A common type of collegiate Chauvinism is manifest in the narrow spirit too often displayed in filling appointments. The professoriate of the profession, the most mobile column of its great army, should be recruited with the most zealous regard to fitness, irrespective of local conditions that are apt to influence the selection. Inbreeding is as hurtful to colleges as to cattle. The interchange of men, particularly of young men, is most stimulating, and the complete emancipation of the chairs which has taken place in most of our universities should extend to the medical schools. Nothing, perhaps, has done more to place German medicine in the forefront to-day than a peripatetic professoriate, owing allegiance only to the profession at large, regardless of civic, sometimes, indeed, of national, limitations and restrictions. We acknowledge the principle in the case of the scientific chairs, and with increasing frequency act upon it, but an attempt to extend it to other chairs may be the signal for display of rank parochialism.

Another unpleasant manifestation of collegiate Chauvinism is the outcome, perhaps, of the very keen competition which at present exists in scientific circles. Instead of a generous appreciation of the work done in other places, there is a settled hostility and a narrowness of judgment but little in keeping with the true spirit of science. Worse still is the "lock and key" laboratory in which suspicion and distrust reign, and everyone is jealous and fearful lest the other should know of or find out about his work. Thank God! this base and bastard spirit is not much seen, but it is about, and I would earnestly entreat any young man who unwittingly finds himself in a laboratory pervaded with this atmosphere, to get out ere the contagion sinks into his soul.

Chauvinism in the unit, in the general practitioner, is of much more interest and importance. It is amusing to read and hear of the passing of the family physician. There never was a time in our history in which he was so much in evidence, in which he was so prosperous in which his prospects were so good or his power in the community more potent. The public

has even begun to get sentimental over him! He still does the work; the consultants and the specialists do the talking and the writing—and take the fees! By the work, I mean that great mass of routine practice which brings the doctor into every household in the land and makes him, not alone the adviser, but the valued friend. He is the standard by which we are measured. What he is we are; and the estimate of the profession in the eyes of the public is their estimate of him. A well-trained sensible family doctor is one of the most valuable assets in a community, worth to-day, as in Homer's time, many another man. To make him efficient is our highest ambition as teachers, to save him from evil should be our constant care as a guild. I can only refer here to certain aspects in which he is apt to show a narrow Chauvinism hurtful to himself and to us.

In no single relation of life does the general practitioner show a more illiberal spirit than in the treatment of himself. I do not refer so much to careless habits of living, to lack of routine in work, or to failure to pay due attention to the business side of the profession—sins which so easily beset him—but I would speak of his failure to realize, first, the need of a life-long progressive personal training, and secondly, the danger lest in the stress of practice he sacrifice that most precious of all possessions, his mental independence. Medicine is a most difficult art to acquire. All the college can do is to teach the student principles, based on facts in science, and give him good methods of work. These simply start him in the right direction, they do not make him a good practitioner—that is his own affair. To master the art requires sustained effort, like the bird's flight, which depends on the incessant action of the wings, but this sustained effort is so hard that many give up the struggle in despair. And yet it is only by persistent intelligent study of disease upon a methodical plan of examination that a man gradually learns to correlate his daily lessons with the facts of his previous experience and with that of his fellows, and so acquires clinical wisdom. Nowadays it is really not a hard matter for a well-trained man to keep abreast of the best work of the day. He need not be very scientific so long as he has a true appreciation of the dependence of his Art on Science, for, in a way, it is true that a good doctor may have practice and no theory, art and no science. To keep up a familiarity with the use of instruments of precision is an all-important help in his art, and I am profoundly convinced that as much space should be given to the clinical laboratory as to the dispensary. One great difficulty is that while waiting for the years to bring the inevitable yoke, a young fellow gets stale and loses that practised familiarity with technique which gives

confidence. I wish the older practitioners would remember how important it is to encourage and utilize the young men who settle near them. In every large practice there are a dozen or more cases requiring skilled aid in the diagnosis, and this the general practitioner can have at hand. It is his duty, and failing to do so he acts in a most illiberal and unjust way to himself and to the profession at large. Not only may the older man, if he has soft arteries in his grey cortex, pick up many points from the young fellow, but there is much clinical wisdom afloat in each parish which is now wasted or dies with the old doctor, because he and the young men have never been on friendly terms.

In the fight which we have to wage incessantly against ignorance and quackery among the masses and follies of all sorts among the classes, *diagnosis*, not *drugging*, is our chief weapon of offense. Lack of systematic personal training in the methods of the recognition of disease leads to the misapplication of remedies, to long courses of treatment when treatment is useless, and so directly to that lack of confidence in our methods which is apt to place us in the eyes of the public on a level with empirics and quacks.

Few men live lives of more devoted self-sacrifice than the family physician, but he may become so completely absorbed in work that leisure is unknown; he has scarce time to eat or to sleep, and, as Dr. Drummond remarks, in one of his poems, "He's the only man, I know mem, don't get no holiday." There is danger in this treadmill life lest he lose more than health and time and rest—his intellectual independence. More than most men he feels the tragedy of isolation—that inner isolation, so well expressed in Mathew Arnold's line—"We mortal millions live alone." Even in populous districts the practice of medicine is a lonely road which winds up-hill all the way, and a man may easily go astray and never reach the delectable mountains unless he early finds those shepherd guides of which Bunyan tells, Knowledge, Experience, Watchful and Sincere. The circumstances of life mould him into a masterful, self-confident, self-centred man, whose worst faults often partake of his best qualities. The peril is that should he cease to think for himself he becomes a mere automaton, doing a penny-in-the-slot business which places him on a level with the chemist's clerk who can hand out specifics for every ill, from the "pip" to the pox. The salt of life for him is a judicious skepticism, not the coarse, crude form, but the sober sense of honest doubt expressed in the maxim of the sly old Sicilian Epicharmus, "Be sober and distrustful; these are the sinews of the understanding." A great advantage, too, of a skeptical attitude of mind is, as Green the historian remarks, "One is never very

surprised or angry to find that one's opponents are in the right." It may keep him from self-deception and from falling into that medical slumber into which so many drop, deep as the theological slumber so lashed by Erasmus, in which a man may write letters, debauch himself, get drunk, and even make money—a slumber so deep at times that no torpedo-touch can waken him.

It may keep the practitioner out of the clutches of the arch enemy of his professional independence—the pernicious literature of our camp-followers, a literature increasing in bulk, in meretricious attractiveness and in impudent audacity. To modern pharmacy we owe much and to pharmaceutical methods we shall owe much more in the future, but the profession has no more insidious foe than the large borderland pharmaceutical houses. No longer an honored messmate, pharmacy in this form threatens to become a huge parasite, eating the vitals of the body medical. We all know only too well the bastard literature which floods the mail, every page of which illustrates the truth of the axiom, the greater the ignorance the greater the dogmatism. Much of it is advertisements of nostrums foisted on the profession by men who trade on the innocent credulity of the regular physician, quite as much as any quack preys on the gullible public. Even the most respectable houses are not free from this sin of arrogance and ignorant dogmatism in their literature. A still more dangerous enemy to the mental virility of the general practitioner is the "drummer" of the drug house. While many of them are good, sensible fellows, there are others voluble as Cassio, impudent as Autolycus and senseless as Caliban, who will tell you glibly of the virtues of extract of the coccygeal gland in promoting pineal metabolism, and are ready to express the most emphatic opinions on questions about which the greatest masters of our art are doubtful. No class of men with which we have to deal illustrate more fully that greatest of ignorance—the ignorance which is the conceit that a man knows what he does not know; but the enthrallment of the practitioner by the manufacturing chemist and the revival of a pseudo-scientific polypharmacy, are too large questions to be dealt with at the end of an address.

But there is a still greater sacrifice which many of us make, heedlessly and thoughtlessly forgetting that "Man does not live by bread alone." One cannot practice medicine alone and practice it early and late, as so many of us have to do, and hope to escape the malign influences of a routine life. The incessant concentration of thought upon one subject, however interesting, tethers a man's mind in a narrow field. The practitioner needs culture as well as learning. The earliest picture

we have in literature of a scientific physician, in our sense of the term, is as a cultured Greek gentleman; and I care not whether the young man labors among the beautiful homes on Sherbrooke Street or in the slums of Caughnawaga, or in some sparsely settled country district, he cannot afford to have learning only. In no profession does culture count for so much as in medicine, and no man needs it more than the general practitioner, working among all sorts and conditions of men, many of whom are influenced quite as much by his general ability, which they can appreciate, as by his learning of what they have no measure. The day has passed for the "practiser of physic" to be like Mr. Robert Levet, Dr. Johnson's friend, "Obscurely wise and coarsely kind." The wider and free the man's general education the better practitioner is he likely to be, particularly among the higher classes, to whom the reassurance and sympathy of a cultivated gentleman of the type of Eryximachus may mean much more than pills and potions. But what of the men of the type of Mr. Robert Levet or "Ole Docteur Fiset," whose virtues walk a narrow round, the men who do the hard general practices in the poorer districts of the large cities, in the factory towns and in the widely scattered, rough agricultural regions—what, I hear you say, has culture to do with him? Everything! It is the bichloride which may prevent the infection and may keep a man sweet and whole amid the most debasing surroundings. Of very little direct value to him in his practice—though the poor have a pretty keen appreciation of a gentleman—it may serve to prevent the degeneration so apt to overtake the over-worked practitioner, whose nature is only too prone to be subdued like the dyer's hand to what it works in. If a man does not sell his soul, if he does not part with the birthright of independence for a mess of pottage for the Ishmaelites who harass our borders with their clubs and oppress us with their exactions, if he can only keep free, the conditions of practice are nowhere incompatible with St. Paul's noble Christian or Aristotle's true gentleman.*

Whether a man will treat his professional brethren in a gentlemanly way or in a narrow, illiberal spirit is partly a matter of temperament, partly a matter of training. If we had only to deal with one another the difficulties would be slight, but it must be confessed that the practice of medicine among our fellow creatures is often a testy and chloric business. When one has done his best or when a mistake has arisen through lack of special knowledge, but more particularly when, as so often happens, our heart's best sympathies have been engaged, to be misunderstood by the patient and his friends, to have evil

* Sir Thomas Browne.

imputed and to be maligned, is too much for human endurance and justifies a righteous indignation. Women, our greatest friends and our greatest enemies, are the chief sinners, and while one will exhaust the resources of the language in describing our mistakes and weaknesses, and will laud her pet doctor so indiscriminately that all others come under a sort of oblique condemnation, it is hard to say whether as a whole we do not suffer just as much from the indiscriminate praise. But against this evil we are helpless. Far otherwise, when we do not let the heard word die; not to listen is best, though that is not always possible, but silence is always possible, than which we have no better weapon in our armory against evil-speaking, lying and slandering. The bitterness is when the tale is believed and a brother's good name is involved. Then begins the worst form of ill-treatment that the practitioner receives—and at his own hands! He allows the demon of resentment to take possession of his soul, when five minutes' frank conversation might have gained a brother. What more joyful in a small or large community than to see the brethren dwelling together in unity? The bitterness, the rancor, the personal hostility which many of us remember in our younger days has been very largely replaced by a better feeling and while the golden rule is not always, as it should be, our code of ethics, we have certainly become more charitable the one towards the other.

To the senior man in our ranks we look for an example, and in the smaller towns and country districts if he would remember that it is his duty to receive and welcome the young fellow who settles near him, that he should be willing to act as his adviser and refuse to regard him as a rival, he may make a good friend and perhaps gain a brother. In speaking of professional harmony, it is hard to avoid the trite and commonplace, but neglecting the stale old chaps whose ways are set and addressing the young, to whom sympathy and encouragement is so dear, and whose ways of life means so much to the profession we love, to them I would give the motto of St. Ambrose. It is told of St. Augustine, after having decided to become a Christian, that when he visited St. Ambrose, at dinner with the venerable father and his brethren, one motto above all others on the wall of the refectory caught his eye and heart, "If you cannot speak well of your brother, keep silence!"

With our History, Traditions, Achievements and Hopes, there is little room for Chauvinism in medicine. The open mind, the free spirit of science, the ready acceptance of the best from any and every source, the attitude of rational receptiveness rather than of antagonism to new ideas, the liberal and friendly relationship between different nations and different sections of the same nation, the brotherly feeling which should characterize

members of the oldest, most beneficent and universal guild that the race has evolved in its upward progress—these should neutralize the tendency upon which I have so slightly touched.

I began by speaking of the art of detachment as that rare and precious quality demanded of one who wished to take a philosophic view of the profession as a whole. In another way and in another sense this art may be still more precious. There is possible to each one of us a higher type of intellectual detachment, a sort of separation from the vegetative life of the work-a-day world—always too much with us—which may enable a man to gain a true knowledge of himself and of his relations to his fellows. Once attained, self-deception is impossible, and he may see himself even as he is seen—not always as he would like to be seen—and his own deeds and the deeds of others stand out in their true light. In such an atmosphere pity for himself is so commingled with sympathy and love for others that there is no place left for criticism or for a harsh judgment of his brother "But these are Thoughts of things which Thoughts but tenderly touch," as that most liberal of men and most distinguished of general practitioners, Sir Thomas Browne, so beautifully remarks; and it may be sufficient to remind this audience, made up of practical men, *that the word of action is stronger than the word of speech.*

THE CONTRIBUTION OF PATHOLOGY TO SURGERY.*

By DR. JOHN STEWART, Halifax, N.S.

There is no finer chapter in the history of our race than that which deals with the exploits of the early navigators of the fifteenth and sixteenth centuries. The sea was not then what it is now, mapped and measured, and marked by innumerable highways of travel. It was a dim, mysterious realm, with unknown bounds; little more was known of its nature when Homer sang, with a grand vagueness, of the Streams of Ocean.

And yet from Palos or from Bristol men set forth urged by the deathless yearning of the human heart to know and to do, with no guide but the scanty scraps of experience and their own hardy resolution, without sextant, without chronometer, without log book, without chart, they sailed out into the vast unknown, unmeasured, unsounded sea, fearing, but daring mystery, and hoping for the Hesperides.

The seamanship of those heroes was perfect; their navigation, their knowledge of the principles which lay at the foundation of their art, their equipment in all that is now deemed essential, was crude and rudimentary. How could it be otherwise when Newton was yet unborn, when the old Ptolemaic theory of the universe still held sway, and at a time when success and failure were attributed to the benign or baleful influences of the stars by which they sought to guide their course?

Long and slow was the progress of their science, centuries were to pass before their dreams came true, many and various were the sources from which help came, and even to-day there are problems unsolved, and a still elusive goal.

Nothing is more striking in the evolution of nautical science than the marvellous development of the last century, due chiefly to the introduction of steam as a motive power. It has created a new epoch.

I knew an old sea captain who told me that when he was an apprentice he sailed one winter morning in a brig called the *Westmoreland* from Belfast, bound out to St. John, N.B., "and," said the old man, "after boxing about the Western Ocean for one hundred and forty days we brought up in Cork harbor." Compare such a contingency with a voyage in such a ship as the *Oceanic*, which leaves her dock with the punctuality of clockwork, a scarcely greater punctuality than that with which she arrives in dock on the other side of the Atlantic.

The contributors to this wonderful advance may be divided

*Address in Surgery to the Canadian Medical Association.

into two classes. There was the practical sailor, quick to observe, ready to act, full of resource, with all

> "The virtues which his perilous life
> Extracts from Nature's elemental strife."

And there was the philosopher, the man of reflection, who pondered the reports of these adventurers in strange seas and under new skies, and sought for explanations of mystery, who followed learning for her own dear sake, and counted himself happy if only he might know the causes of phenomena and evolve a cosmos from seeming chaos.

A parallel, not altogether fanciful, may be drawn between those pioneers of ocean travel and the early masters of our craft. Those made their way through the uncertain world of waters, very synonym of change and unrest, guided on the one hand by their own hard-won experience and the traditions of their fathers, and on the other by the application of principles laid down by men who made a philosophic study of Nature, who searched into the secret of the sea, who built up the sciences of astronomy, geography and hydrography.

And these worked in the sphere of the human organism, mysterious, intricate, inexplicable, and they, too, worked on two lines, the long and weary and often fallacious track of Empiricism, and the ampler but often disconnected road constructed by those whose chief aim was, in the words of him who led the vanguard, "to study and search out the secrets of Nature."

There was a cosmography, of a kind, and methods of measuring space and time before Copernicus and Tycho Brahe, and there must have been some sort of a pathology, some notion of the nature of the morbid processes in the mind of the first prehistoric surgeon who plugged a wound or opened an abscess. The troglodyte surgeon must have had some notion why he chipped holes in his patient's skull.

But was the lore of the mediæval mariner, regarding the earth as a fixed expanse around which the heavenly bodies wheeled, casting a horoscope to secure a favorable voyage; sailing a wonder-sea of mystery and portent—a man who had anchored to the Kraken's rugged side and who was well acquainted with the mermaid—was his science more unscientific than that of his brother, the surgeon? What a limbo of fantastic and irrational notions filled the minds of our colleagues of the Middle Ages! Yes, even of men who lived a century ago and whose voices still have power.

It is difficult for us to realize the strange notions of a time when the ancient humoral pathology in a very solidist manner still projected itself into the vortex of the Renaissance, when honoralist and solidist rose, struggled and sank, to reappear in

new disguises as they do to this day, when the vitalist imagined his "Archaeus," when skilled clinicians considered scabies a typical dyscrasia, and when a keen and cultured mind could believe in the "pulvis sympatheticus," and when the grotesque philosophy of Paracelsus, with its strange fore-gleams of latter day truth, held sway. Mediæval pathology is like a dark and troubled sea where gleams of truth shine pale through wildering mists, and where conflicting currents seethe and boil, "dark fluxion, all unfixable by thought."

And what navigation was to seamanship, pathology is to surgery.

Advance in nautical science was conditioned by the advance in the study of natural phenomena, by invention of instruments of precision, and the application of these to the purposes of the mariner. From China came the mariner's compass; from Nuremburg came the watch, precursor of the chronometer; from Flanders came Mercator with his charts; Scotland sent Napier with his logarithms; England supplied Hadley and the sextant; and the forerunner of the nautical almanac—the mariner's *vade mecum*—in the shape of the first almanac, came from Poland.

And nothing is clearer than that progress in surgery depended on the study of vital phenomena, and the application of the results of these studies and of new methods to the problems of disease and injury.

The pyrotechnics of Paracelsian dreamery were still blazing on the dim coasts of the old world pathology when the morning star of the new era appeared in the person of the first real anatomist, Vesalius, and day dawned with William Harvey, the Columbus of modern medicine. Harvey led the way in the application of experimental methods to biological questions. The result of his great discovery was a complete change in pathological ideas, and a new school of pathology soon arose under the guidance of the famous Boerhaave at Leyden. He, impressed by the study of the physics of the circulation, and aided by the discovery of the capillary system by Malpighi, and of the red corpuscles of the blood by Swammerdam and Leevwenhoek, initiated the study of the local changes in diseased parts, and soon the first text-book of general pathology was brought out by Gaubius, distinctly biological in its view, and having for its text the maxim of Boerhaave, "Morbus est vita praeter naturam."

It was under the influence of these views and the new methods of study that Morgagni produced his epoch-making book, "De Sedibus et Causis morborum," of which Virchow says, "it was the first time that the sum total of actual knowledge of the material alterations which disease occasions in the body was brought before the world."

With this pathological anatomy began and the way was prepared for John Hunter. He it was who introduced the experimental method into the study of disease, and by virtue of his intuitive genius, his amazing capacity for work and his practical applications of the results of his researches has well-earned the title, "Father of Scientific Surgery." "From the time of Hunter to the present time," says Billroth, "English surgery has had something of grandeur and style about it."

In the vast field of subjects which Hunter explored it is difficult to single out any one for pre-eminence, but it is undoubtedly on the score of his celebrated operation for popliteal aneurism that he is generally known as a practical surgeon. Mr. Butlin, in his interesting Cavendish Lecture, tells us, not without a stroke of humor, of the great expectations he had formed of interesting instances of the direct influence of pathological study on practical surgery, and how he found absolutely nothing of the sort in the history of medicine until he came to Hunter's operation, which he calls "the *one* example, the *only* example, up to that time, of deliberate surgical invention founded on the study of pathology by the man who made the invention."

But it is not in particular instances only, in improved methods of diagnosis, in aids to operative surgery, that the contribution of pathology is found. It is rather in the new principles gained, and in the new attitude towards Nature and phenomena that pathology has ennobled surgery.

Hunter helped us to understand our power of interrogating Nature, of interpreting her answer and our power of applying the knowledge so gained to the practical problems of our art. This was the beginning of scientific surgery, but much remained to be done, and it is noteworthy that the chief actors in the movement now were among the surgeons. Who can estimate the value of the impetus given to pathology by Xavier Bichat, in his studies of the tissues, or of Andral, in his hemato-pathology? After Bichat came Dupuytren, the practical surgeon, and in England Charles Bell revolutionized our theories of the nervous system.

The next great advance was to arise from a study of plant life, and the researches of Schwann and Schleiden paved the way for the cellular pathology of Virchow—the basis of our present system of pathology.

And a shadow falls upon us gathered here as we realize that the veteran master, the undisputed leader of pathological thought and progress for over fifty years, has fallen, and we unite in the desire to lay our spray of cypress on the tomb of him whom we all considered the greatest German of our time.

But with all these new acquisitions, the exact anatomical

knowledge, the clearer views of morbid action, there was still for the surgeon an unexplored sea of mystery. The pathologist went on his way rejoicing in his rapidly increasing store of knowledge, the surgeon still lingered, with anxious mind and heavy heart, for the question of questions to him was still unanswered.

The healing of wounds was the enigma of surgery, and the characteristic difficulty was the uncertainty attaching to the healing process. Here a wound healed quietly and soundly, without pain and without causing constitutional disturbance, and there it became inflamed, suppurated for weeks, causing intolerable anguish and exhausting the patient. Why the difference? Why so much more danger from the thrust of a pike than the stroke of a sabre? Why should a fracture of the leg, in which a splinter of bone had cut through the skin, be so much dreaded, while multiple simple fractures were seldom dangerous to life? Why was the peritoneum virtually a closed door to the surgeon's desires? Why did the implication of a joint add so terribly to the danger of a penetrating wound? Who can estimate the amount of anxious thought that has been given to this subject; who can gauge the disappointment that resulted from the application of so many theories? Empiricism was at its wits' end. Cold lotions and warm poultices, stimulating liniments and soothing ointments, wet dressings and dry, no dressings at all—all had their advocates, their occasional successes and their inevitable failures. The only certainty in the whole sad field was the certainty of failure, the certainty that however brilliant a series of cases a surgeon might have, it was sure to be broken some day, for some inexplicable reason. We can only wonder at the marvellous correctness of some of the guesses at truth that were made, and admire the results which were sometimes attained by men who would almost appear to have had an intuitive, if unconscious, knowledge of the truth. Witness, for instance, the extraordinary results of Alanson, at the Royal Infirmary at Liverpool, in the beginning of last century. And mark that Alanson was a pupil of John Hunter.

The idea of *materies morbi* is a very old one, and doubtless the idea that this might be a species of living matter is also old. The notion of parasitism of disease crops up repeatedly in the history of pathology. Monti, in his "Fundamental Data of Modern Pathology," claims for his fellow-countrymen Agostino Bassi, the distinction of being the founder of the doctrine of pathogenic microbes.

However this may be, it is certain that by the close of the eighteenth century this conception was present in the minds of many scientific workers.

It was reserved for Schonlein to prove in 1839 that the disease known as tinea, and considered as a typical "humoral" disease and not only so but hereditary, was really due to the growth of a fungus.

About fifty years ago Davaine and Chauveau proved that the disease known as anthrax was caused by the presence of an organism discovered in the blood of affected animals by Pollender in 1849.

The mists of conjecture were condensing and trickling into clear tiny rivulets, and soon these were collected by the genius of Pasteur into the grand fountain-head of the mighty stream of bacteriology. But the practical surgeon had gained nothing towards the elucidation of his enigma. Perhaps at no time was there greater helplessness in the treatment of wounds. The advance in methods of diagnosis and improved methods of operating introduced by such men as Syme and Nelaton, and other brilliant surgeons of the period, and the great discovery of anesthesia, had stimulated operators to increased activity. But the surgeon and his patient seemed the sport of a capricious fate. Epidemics of septic fever, pyemia, hospital gangrene and erysipelas decimated hospital wards and often attacked fifty per cent. of all operation cases, and hospitals were being closed. Surely surgery was suffering eclipse.

Then came Lister, and the dark hemisphere rolled in one grand movement from its age-long penumbra into noonday. Surgery—modern surgery—was born. In the chronology of our craft time is divided into Before and After Lister. The shadows of fear, anxiety and uncertainty left the surgeon's face, for now that

"Wise, rare smile was sweet with certainties."

It is a fascinating thing to trace the history of a great discovery, and when the time comes to write the history of the Listerian Renaissance, it will be found the Romance of Surgery.

"The great artist," says Amiel, "is a simplifier." "Art is simply the bringing into relief of the obscure thought of nature; a simplification of the lines, a falling into place of groups otherwise invisible. The fire of inspiration brings out, as it were, designs traced beforehand in sympathetic ink. The mysterious grows clear, the confused plain; what is complicated becomes simple, what is accidentally, necessary. "Every ideal is the key of a long Enigma." Lister's ideal fitted the key to the Enigma of Surgery.

I do not know that we are yet in a position to understand the profound change which this ideal brought into pathology. We cannot yet find a proper perspective, to view the work of him who is in surgery what Newton was in physics, "that

master mind to which" as Pearce Gould says, "we owe the greatest impetus that surgery has ever felt."

As the new system was developed step by step with irresistible logic and exact experiment, what illimitable vistas opened up before the surgeon, what realms undreamed of before.

> "Then felt I like some watcher of the skies
> When a new planet swims into his ken;
> Or like stout Cortez when with eagle eyes
> He stared at the Pacific—and all his men
> Look'd at each other with a wild surmise—
> Silent, upon a peak in Darien."

Lister, like Hunter, united in himself the pathologist and the surgeon, and like him he worked on the lines of Harvey and "searched out the secrets of Nature by way of experiment." The greatest contribution of pathology to surgery is through experimental surgery.

I have already had the honor of bringing before this Association some of the grounds on which we claim Lister as a great pathologist. His work on Inflammation, on the Coagulation of the Blood, and on the Action of the Nervous System as a powerful factor in pathological processes has been of direct and inestimable value to surgery apart from his *magnum opus*. I will now indicate some of the ways in which the pathological researches of others have directly influenced surgery. I shall choose three great departments of operative surgery.

The old operation for popliteal aneurism was to tie the vessel on either side of the tumor, cut it open, turn out the clot and allow the wound to heal by suppuration. The mortality was very high, the usual cause of death being secondary hemorrhage from the proximal ligature cutting its way through the artery. The current pathology of aneurism, founded mainly on some observations of Haller, ascribed aneurism to a weakening of the vessel wall. Hunter came to the conclusion, from clinical and *post-mortem* study, that aneurism was due to disease of the arterial coats. But he was not content to think so. He experimented on the dog and found that mere weakening of the vessel by removal of portions of its outer walls did not lead to aneurism. He proposed to tie the artery high up where it was healthy, arguing that the current in the artery being thus shut off pressure in the aneurism would cease, and coagulation would take place; also that the collateral circulation would be sufficient to keep up the vitality of the limb without causing appreciable reflux into the sac. And what of the tumor itself? Instances have been recorded by Valsalva and others of the disappearance of aneurismal tumors which had undergone spontaneous cure, and, whether Hunter was aware

of this or not, he seems to have trusted to absorption for the removal of the solidified contents of the sac, and we all know the brilliant success that proved his reasoning true.

A more modern instance of an operation conceived in the same spirit is afforded in the first nephrectomy, by Gustav Simon, of Heidelberg. A patient came under his care suffering from a urethral fistula. In the sixties probably no surgeon had yet dreamed of urethral anastomosis and removal of the kidney seemed to offer the only chance of cure. But was the operation feasible?

It must have been long known, thanks to morbid anatomy, that one kidney might be destroyed by disease and the patient yet remain healthy. It was a quite different matter to remove a kidney by operation without any opportunity for compensatory changes to take place. But experimental pathology had furnished proof in the hands of Zambeccarius that, in the dog, one kidney might be removed without appreciable injury to health. Simon repeated these experiments. He learned that the chief danger was from peritonitis, that there was not much fear of hemorrhage, that uremia was not to be dreaded, that neither albuminuria nor cardiac hypertrophy followed, and that compensatory hypertrophy occurred in the remaining kidney. And so, in 1869, he removed the kidney, and succeeded in curing his patient of her distressing malady.

Few things would have amazed and delighted John Hunter more than the recent developments in brain surgery, and especially the steps by which the perilous ascent was gained. Diseased brains have been examined since the time of Margagni, but it was the genius of Broca which first pointed to a *sedes morbi* for aphasia. The same fortunate blending of clinical acumen with exact morbid anatomy enabled Hughlings Jackson to extend our knowledge of the dependence of intercranial diseases on local alteration of structure. But it was necessary to have the irrefutable proofs afforded by the experiments of Fritsch and Hitzig and of Ferrier before the surgeon could project his chart of cerebral surgery and sail for the Island of Reil.

Now it is evident that I need not weary you by going into further details to show how pathology, in its various departments of morbid anatomy, etiology, chemical, microscopic and experimental pathology, has contributed to the advance of surgery. Every day brings new evidence.

Our understanding of morbid processes has been and is still being enlightened, our power of diagnosis is increased, and our ability to cope with disease and injury is extended.

It is often said that the foundation of surgery is anatomy, and this is true in a sense, for anatomy is the first step in

pathology. A knowledge of anatomy is absolutely essential to the study of the human body. But anatomy deals with dead matter, pathology with living, if morbid, activities—anatomy is finite, but pathology, in the permutations which may occur in anatomical elements, is infinite, and it is the realm which the surgeon must explore who wishes to have a firm grasp of the principles of his art. Much has been learned, but more lies waiting discovery. There is always another "peak in Darien" and many surmises to make sure—"*O mare a littus verum secretumque Movœiov quam multa invenitis quam multa dictatis.*"

Navigation owes much to the various institutes founded to further its study. Who can tell the value of the early naval schools in Spain, or of the Greenwich Observatory? And so if pathology is to flourish provision must be made for its study. Every hospital should have its Pathological Institute.

And here we know we shall find ourselves in collision with that section of the public to whom science is uncongenial and medical science an abomination. Pathological study may not always seem interesting or profitable. The ancient mariner would have smiled to think the Tuscan artist, with his optic glass, could be of any benefit to him, and perhaps Galileo was thinking more of descrying new lands, rivers and mountains in the moon than of assisting the sailor, nevertheless he was helping to lay the foundation of the science which was to make the modern sailor's work possible.

And when the father of our own illustrious Lister, applying his knowledge to the physical and chemical characters of glass, perfected our achromatic microscope, there were practical surgeons who would certainly have failed to see any bearing which his work had on theirs.

When watches were first made in Nuremberg the only thought in the maker's mind, probably, was the accurate registration of the passing of time. But Gemma, the Italian, intent on perfecting methods of navigation, seized the idea of the watch at once as a means of computing longitude and led the way to the use of the chronometer. And the gain is not necessarily all one way, for the practical surgeon, making careful clinical records, may furnish the pathologist with new ideas, and, if one may wrest the words from their original meaning, he,

> "Doomed to go in company with Pain,
> And Fear and Bloodshed, miserable train,
> Turns his necessity to glorious gain,"

and may help to introduce new forces into the healing art.

Here in Canada, while we have had ample experience of the anti-vaccinationist, we have scarcely made the acquaintance of

his colleague, the anti-vivisectionist. But the sign of the times indicate that full scope will soon be given to his vituperative faculty, for in the Universities of McGill and Toronto pathological research has fairly started on its way.

If we cannot, however, "mollify the spirit of captious contradictors," we may perhaps deprive them of an audience by teaching the public that those who devote their time to the investigation of disease, and who may sometimes find it necessary, for the elucidation of the problems submitted to them, to inflict pain on animals, may be lightening the burden of humanity as well as he who directly mitigates its pains, and that their work may be regarded like that of every conscientious surgeon, as a sacred duty, a responsible task, carried out "as ever in the great Task-Master's eye."

Selected Article.

RUDOLF VIRCHOW, M.D.,

PROFESSOR OF PATHOLOGICAL ANATOMY, UNIVERSITY OF BERLIN.

It is with the deepest regret that we announce that Professor Rudolf Virchow died at his house in Berlin on September 5th. On January 3rd of the present year he fell while alighting from an electric tramcar in the Leipziger Strasse, Berlin, and suffered a fracture of the neck of the femur. He recovered to a considerable extent from the effects of the accident, and there seemed for a time to be a prospect of his restoration to active life; two or three weeks ago, however, he began to lose ground, and his condition gave rise to such anxiety that a few days ago he was brought back from Harzburg to Berlin. He died peacefully in the arms of his wife, an unmarried daughter who lived with him and his daughter-in-law being also present. Though it was clear that he was sinking, it was not known that the end was so near. His son, Professor Hans Virchow, who had called in the morning and gone away, was hastily summoned in the afternoon, arriving just before his illustrious father passed away.

The death of Rudolf Virchow, though for some time past it has been clear that the sands of his life were running very low, has at the last come upon us with something like the shock of the falling of a great tower. In him has passed away one who was in the truest sense a mighty ruler, for he ruled not the bodies but the minds of men. For well nigh half a century he held almost sovereign sway in a realm of science which he himself had conquered—it might almost be said created. When men whose names are now familiar as household words on the lips of all students of medicine were still in the nursery, Rudolf Virchow was already famous as the pioneer of a new world of research.

Grievous though the loss of such a man must be, we have not to mourn in him a life cut short before the fulfilment of all that it held in it of promise for the advancement of knowledge and the good of mankind. Virchow had done his work, and he has left us heirs of all the produce of his teeming brain which wrought in fruitful activity, "without haste but without rest," throughout his long life.

BIOGRAPHICAL SKETCH.

Rudolf Ludwig Karl Virchow was born on October 13th, 1821, at Schivelbein, a small town in Pomerania. He was the

son of a shopkeeper, but beyond the names of his father and mother, Karl Virchow and Johanna Hesse, nothing is known of his family. Till his thirteenth year he lived at home, attending the public school of his native town, and later being prepared for the gymnasium by private tuition. In 1835 he entered the gymnasium of Cöslin, the chief town of the district. There he came under the influence of the Director, Otto Moritz Müller, whose attention was drawn to him by his knowledge of Latin, which was remarkable in a boy of thirteen.

Virchow entered the Friedrich Wilhelm Institute, founded for the education of medical officers for the Prussian Army. On October 21st, 1843, he took his doctor's degree at the University of Berlin.

Almost immediately after graduation Virchow was appointed Assistant to the Prosector of the Charité Hospital. That post was then held by Robert Froriep, and on his resignation in 1846 Virchow was chosen as his successor. In the following year Virchow qualified as *Privat-docent*. About the same time, in conjunction with his friend Benno Reinhardt, he founded the famous *Archiv* which bears his name, and which he continued to edit till his death. In 1848 he was sent by the Prussian Government to investigate an epidemic of typhus fever which was raging in Upper Silesia.

Virchow's political activity brought him into conflict with the authorities. He was compelled to resign his appointment as Prosector to the Charité. But his politics had not made him neglect pathology. He had published his epoch-making researches on phlebitis, thrombosis and embolism, and on leukemia, besides numerous contributions to morbid anatomy. He had also made his mark as a teacher.

Installed at Würzburg.

His reputation had already become so considerable that he was offered a Chair by the University of Würzburg. He took possession of the Chair in May, 1849, and remained there till 1856.

Recalled to Berlin.

In 1856 Virchow received an invitation to become Professor of Pathology at Berlin. He accepted it on the condition that an institute for practical work was founded. The readiness with which the authorities met his views showed the importance they attached to securing his services. When he entered on his career as professor at Berlin the museum of Morbid Anatomy contained only some 1,500 preparations. When, on his eightieth birthday, he received the congratulations of the scientific world in the new Pathological Museum which is the

outcome of his own indefatigable exertions, the number of preparations in it was stated to be nearly 23,000.

The "Cellularpathologie."

In 1858 appeared the *Cellularpathologie*, in which he laid the foundations of scientific pathology. The conception on which the whole structure rests is formulated by the author in the famous proposition, *Omnis cellula a cellula*. The work is one of the classics of medical literature, one of the great landmarks in the road leading from the darkness of ignorance to the light of knowledge. Of this monument of patient research and brilliant generalization, Lord Lister said that it "had swept away the false and barren theory of a structureless blastema, and established the true and fertile doctrine that every morbid structure consists of cells which have been derived from pre-existing cells as a progeny. . . Even those morbid structures which deviate most from the normal structure are known to be derived as a progeny from normal tissue—from normal cells, driven to abnormal development by injurious agencies." The principles set forth in the *Cellularpathologie* were applied by Virchow to the elucidation of the genesis and development of tumors in his other great work, *Die krankhaften Geschwülste*, which was published between 1863 and 1867.

His Literary Productiveness.

His addresses, lectures and miscellaneous papers are almost innumerable. In 1893 he delivered the Croonian Lecture of the Royal Society, taking as his subject the Place of Pathology in Biological Study. He also delivered addresses, each in its way memorable, at the International Medical Congresses of London, Berlin, Rome and Moscow. In 1898 he delivered the Huxley Lecture at the opening of the winter session of the Charing Cross Hospital Medical School; in this he summed up in a masterly manner "recent advances in science and their bearing on medicine and surgery." The astonishing range of his work is shown by the almost encyclopedic variety of the subjects with which he dealt.

His work as a hygienist alone would entitle him to the everlasting gratitude of his fellow citizens, for it is mainly owing to his persistence in urging administrative and sanitary reforms that Berlin is now one of the healthiest cities in the world. He was for many years one of the most active members of the Berlin Town Council, and he used the influence which that position gave him to bring about the reform of many police abuses and to promote the comfort and well-being of the people.

His Political Career.

Of Virchow as a politician considerations of space will not allow us to say much. The mere statement of the fact that for many years he was the recognized leader of the Radical party in the Prussian Chamber will serve to give some measure of the versatility of this wonderful man. The part which he played in politics would have sufficed to make him one of the most conspicuous figures in the public life of Germany, but so great was he in the domain of science that his political distinction scarcely added to his fame. He became a member of the Prussian Chamber in 1862, and quickly took a leading position in that body. Bismarck soon recognized in the quiet, insignificant-looking professor an opponent with whom he had to reckon. Indeed, the Man of Blood and Iron honored Virchow with a special hatred, for the great pathologist was the incarnation of that "Professorismus" which he detested. In 1865 Virchow defeated the Government on a motion to create a German navy, and Bismarck was so enraged that he challenged the professor. Virchow had the courage to decline to expose to the chance of a duel a life which he felt to be more valuable to mankind than that of any statesman. He was Chairman of the Finance Committee of the Prussian Diet for twenty-five years, and in that capacity took a large part in establishing the present Prussian Budget system. In 1878 Virchow retired from active political life, and although he was elected to the German Reichstag in 1880, he took little part in debates.

Honored by the Profession of the United Kingdom.

The veneration felt for Virchow by the profession of this country was shown in a striking manner on the occasion of his visit to London in 1898. He was entertained at a great banquet at which more than 200 were present; among them were all the leaders of the profession in the three kingdoms. Lord Lister, in proposing his health, said that all of them might rank as his disciples, for the truths which he had enunciated had been studied and learnt by them all. Lord Lister went on to say that though it was doubtless in pathology that Virchow reigned supreme, there were various other departments of human knowledge which he had made his own. No man living was better versed in the history of medicine. He was an acknowledged authority on anthropology, and a distinguished antiquarian. Referring to his political activity, Lord Lister said that whatever differences of opinion on that subject there might be, one thing must be admitted by all—that Virchow's voice was ever heard in defence of liberty, truth,

and righteousness. Sir Samuel Wilks, with a slight adaptation of Pope's epitaph on Newton, said:

> Nature and Nature's laws lay hid in night;
> God said, Let Virchow be, and all was light.

The Man.

Professor Virchow retained his marvellous vitality of mind unimpaired till the end. He lectured as usual up to the time of his accident, and foreign visitors were deeply impressed by his grasp of the most recent developments of pathology. Always simple and modest, he never showed any desire for the honors and distinctions which are so greatly valued by the bulk of men. As a writer in the *Times* well says:

He was always the same, whether shaking hands with royalty, accepting the respectful homage of an important deputation, packing up in his own house, or lecturing to the most scientific gathering in the world—always the simple little grey man, sincere, kindly, unassuming, absorbed in his subject, not in himself, crammed with information, profound and penetrating in thought, plain in utterance, the embodiment of accurate knowledge and sound judgment, the true servant of truth.

As a lecturer and teacher Virchow showed a ready command of language. His style was exceedingly simple and clear, being free from those involved sentences so common among early speakers and writers, and which at once suggested a nest of pill boxes. Speaking about these sentences, he once said to me that, German as he was, in reading some of the older German works, he was sometimes obliged to analyze a sentence, and to say to himself, "This subject goes with that predicate and this relative with that antecedent and this auxiliary with that verb," just as if he were constructing a difficult sentence in Latin. He was convinced that this involved style had in the past been a serious hindrance to the progress of German science, and he early determined to form a simpler style for himself.

Personally, his manner was affable and democratic; he encouraged students to gather round him after the lecture and to ask explanations of anything that they did not fully understand. He was a great snuff-taker, and would pause a number of times in each lecture to enjoy his favorite luxury. I can hear now the preliminary tapping of his finger on the lid of his snuff-box and the half dozen strong nasal inspirations that followed. The impression that he left upon one was that of a genial, kindly man, as well as of a great scientist.

Virchow's Pathological Work.

Virchow's great task was to free medical knowledge from the conflicting dogmatism and arbitrary hypotheses which encumbered it, and to establish its leading principles irrefutably by a process of sound induction from actual observations and experiments. At the commencement of his career the humoral theory was dominant, and the explanation of morbid processes was sought either in the nerves, the blood, or the exudations of the body. So long as these views prevailed, it was impossible to form a true appreciation of the brilliant discoveries of pathological anatomy which had been made in the Vienna school, and hence Rokitansky, their leading exponent, whose theory of crases and dyscrasies of the blood was supposed to explain anatomical lesions, was one of the first objects of Virchow's attack.

Virchow's first important labors were upon the nature of blood diseases. Commencing immediately after he took his degree with an investigation into the nature of phlebitis, he followed up these researches with a series of brilliant discoveries which alone would entitle him to a position in the front rank amongst the pathologists of last century. The conditions of vascular inflammation, the causes of thrombosis and embolism and their relation to infection were investigated; pyemia was defined and clearly distinguished from leukemia, with which it had previously been confused, and a valuable insight was given into the nature of the latter disease.

Soon after the commencement of his *Archiv* he began to publish articles in that journal which foreshadowed the appearance in 1858 of his *Cellularpathologie*. In that work, which is the foundation of modern pathology, the researches of Schleiden and Schwann upon the cellular structure of vegetable and animal organisms were confirmed and further elaborated, and the part which the cell plays in pathological processes was established for the first time.

The work on tumors was published in parts which appeared successively between the years 1863 and 1867, but were unfortunately not completed. The whole is dominated by the fundamental idea of the cellular theory, and contains a vast amount of valuable matter, amongst which the classification of sarcomata and demonstration of their mesoblastic origin are particularly conspicuous. Whilst the books on cellular pathology and tumors will always remain the best known of Virchow's works, it must not be forgotten that they only represent a small fraction of the labor which he expended upon the advancement of pathology.

In paying a tribute to his memory we naturally recall the

warm and unanimous appreciation which has been accorded to him during his lifetime from all Europe and America, and remember with particular pride and satisfaction the generous recognition of his work by our own leaders of science, Huxley and Lister, to whose achievements Virchow has been equally ready to pay honor on his visits to this country. But the highest tribute to Virchow's work is the living reality of his own ideas.

Virchow's life is the most eloquent example we possess of a man actuated throughout by the high ideal of the medical duty to combat disease. To fulfil that duty as he did is the gift of a genius almost superhuman. Though we cannot hope to emulate him in the magnitude of his work, his example provides a directly practical and personal lesson which can best be learnt from the noble simplicity of the ideas which inspired him. He has placed medical science on a substantial basis by employing the methods of observation and experiment. But his work is preparatory, and is far from having gained completion. The leading problems of disease are are still unsolved, and to pursue and widen those broad principles of investigation he has taught us is as imperative a duty to-day as it was fifty years ago. The sincerest homage we can pay to Virchow is to realize the gravity of the obligation he has bequeathed to us, to remember that medical knowledge to-day is still encumbered with arbitrary hypotheses and conflicting dogmatism, and to steadily pursue the course towards a co-ordinated system of knowledge, with the same responsible appreciation of scientific ideals which is the common heritage he has left in the possession of all.—*Abstract British Medical Journal.*

Society Reports.

CANADIAN MEDICAL ASSOCIATION.

The thirty-fifth annual meeting of the Canadian Medical Association was held in the City of Montreal on the 16th, 17th and 18th of September, under the Presidency of Dr. Francis J. Shepherd.

As an evidence of the great success which attended this meeting, the fact that more physicians registered on the first day than on any other previous first day, speaks volumes.

At the morning general session of the first day a resolution of regret at the recent death of Professor Virchow, which was at the same time one of appreciation for the great work of this eminent pathologist, was proposed by Professor Adami, seconded by Dr. Gardner, Montreal, and carried unanimously.

The meeting divided into sections, Dr. McPhedran, Toronto, taking the chair at the medical session, while Dr. O. M. Jones, Victoria, B.C., looked after the surgical section.

Medical Section.

FIRST DAY—MORNING SESSION.

Living Case, Splenic Anemia.

Dr. H. A. Lafleur, Montreal, presented a patient—a man in middle life. There was a tumor, a movable mass about midway between the lower ribs on the left side and the crest of the ilium, with pulsation, but not expansile, over the tumor. The first blood count, made in March, showed 75 per cent. hemoglobin, the red corpuscles, 5,000,000; the white, 6,400. A blood count made again on the 15th September, 1902, showed 4,000,000 and 5,800 respectively. The tumor changed according to degree and distension of the stomach. There was absence of mobility.

Dr. Osler referred to the difficulty in diagnosing this case, and said that enlarged spleen was often clinically mistaken for something else. This was just one of these cases in which the diagnosis was more surgical than clinical.

Some Further Results in the Treatment of Tuberculosis.

Dr. J. H. Elliott, of the Gravenhurst Sanatorium, contributed this paper. At a meeting of this association in Toronto in 1899, a report was made upon 155 cases of pulmonary tuberculosis

under Sanatorium treatment. This paper is a further contribution, covering some 400 additional cases treated during the past three years. The nomenclature used in the classification of discharged patients is that adopted by Trudeau: "Apparently cured," "disease arrested," "much improved," "stationary" and "failed."

Five years' experience has shown that almost all of the patients discharged "apparently cured" remain perfectly well —of those with "disease arrested" many have progressed to good health at home by following the rules of life learned at the Sanatorium, renewed activity of the disease, when occurring, having been as a rule due to unfavorable surroundings, or the necessity of again taking up unsuitable work.

Not the least important part of the work of a sanatorium is its educative influence. Each patient who returns home is a teacher of the value and importance of a hygienic life to those who wish to retain their health, as well as those who are not strong.

Experience is demonstrating the immense amount of influence for good which results from a properly equipped and conducted sanatorium. It is unfortunate that there are not more of them. It is hoped that the attention of our philanthropists will be drawn to the crying need of such institutions, and that ere long we shall have a number of them in the various Provinces of Canada.

Dr. Osler congratulated Dr. Elliott on the promising results which he has obtained. Two important points should be kept well in mind: First, early diagnosis, and, second, getting patient as soon as possible under proper professional control.

Dr. T. D. Walker, St. John, N.B., referred to the control the physician in the sanatorium had over the patient.

Dr. John Ferguson, Toronto, spoke of the positive advances that have been made along the line of the curability of pulmonary tuberculosis.

Dr. McPhedran, Toronto, emphasized training patients how to care for themselves at home. He believes, too, that it is true that the neighborhoods of sanitaria are areas where tuberculosis is always diminishing.

Pleurisy as Associated with Tuberculosis.

Dr. John Hunter, Toronto, read this paper. He first referred to the manner in which bacilli reached the visceral and parietal pleural layers through the sub-pleural, bronchial or tracheal lymphatic glands, and from the cervical mediastinal and peritoneal lymphatics; also from the tonsils. In arriving at a diagnosis of pleurisy, a vigilant search should be made for a possible tuberculosis origin. One should not always consider the outlook

gloomy, as with properly carried out treatment, the progress is much more favorable than in pulmonary tuberculosis. In at least two-thirds of tubercular pleurisy it is a curable affection. The rapidity of the filling of the pleural cavity is especially characteristic of tubercular cases.

Dwelling upon treatment, during convalescence, deep breathing should be practised very assiduously, and inflation with rubber bags is a valuable exercise. Then change to a suitable climate should be insisted on if the progress towards recovery be retarded.

Clinical Notes on Blood Pressure in Diseased Conditions.

Dr. A. E. Orr, Montreal. A. Gaertner's Tonometer was shown and the manner of its use demonstrated. Four hundred patients at the Royal Victoria Hospital, Montreal, were experimented on. The normal pressure was found to be 110 to 120. Seventy cases of typhoid fever were recorded in different stages, showing an average blood pressure of 104.5 mm. It was highest, but still sub-normal, in the first week. There was only one death, which took place in a man of thirty-five years, when pressure was 105 on tenth day, 110 on twenty-first day; then three hemorrhages, and on the twenty-fourth day a fatal hemorrhage. A large proportion of these had cold baths or cold sponging.

Nineteen cases of chronic nephritis were recorded. Of this group the highest was 260; average 208.5. Of acute nephritis there were seven cases; only three of these showed high pressure. Of arterio sclerosis 27 cases were recorded; highest 210, 16 being 150 and over; four from 130 to 145; three from 110 to 125; four subnormal. The highest was in a man of 72; glycosuria, no albumen.

Valvular diseases of heart, 48 cases, including 11 cases of mitral regurgitation. In mitral stenosis eight cases were recorded, six being normal. Mitral stenosis with mitral regurgitation, 14 cases. Eleven had practically normal tension. Aortic insufficiency, three cases. Myocarditis, four cases; one man aged 60 having pressure of 80. Hypertrophy and dilatation of heart of unknown causation, two cases 120 and 110 respectively. There were 18 cases with acute lobar pneumonia, with an average for the series of 92.7; only one death. Pleurisy 16 cases. Neurasthenia 18 cases, 13 having normal pressure; three from 135 to 140; one of 160. In malignant disease, cancer of viscera, there were no high readings. Anemia six cases, all being normal. Addison's disease two cases, both in early stage; both normal. Puerpura hemorrhagica, one case; normal. Puerperal septicemia, one prolonged case, ending in recovery, had extremely low blood count, 930,000; above

normal. One gall-bladder case with suppuration — a blood pressure of only 50 ten days before death.

One lead poisoning, three of jaundice, one of tubercular meningitis; two of diabetes; two of exophthalmic goitre; eight of acute articular rheumatism, heart not affected; chronic articular rheumatism, four cases, all normal; gonorrheal rheumatism, eight cases, six normal; rheumatoid arthritis, 16 cases, six normal; gout, four cases.

There was one case of hemiplegia and 14 of tabes dorsalis 11 normal pressure; cerebral tumor, eight cases; general paralysis of insane, one case; Friedrich's ataxia, one with albuminuria, 140; one acute ascending paralysis, 140; two cases tic doloreux, one 130 during the attack. There was one case of epidemic influenza and 36 miscellaneous cases

In discussing this paper, Dr. Osler considered it to be the best contributed article on the subject.

On the Technique of Recording the Venous Pulse.

Dr. W. S. Morrow, Montreal, gave a practical demonstration on the blackboard and presented a living subject.

Surgical Section.

FIRST DAY—MORNING SESSION.

Amputation of the Upper Extremity for Sarcoma of the Shoulder Joint: Living Case.

By Dr. J. Alex. Hutchison, Montreal. The patient—a young woman—presented by Dr. Hutchison, gave a history of previous injury to the shoulder, followed by the development of a growth in the head of the humerus, accompanied by intense pain. An X-ray of the parts revealed the presence of a large growth which invaded the joint, and involved the scapula. The patient was in an extremely unsatisfactory condition for operation, and presented evidence of marked cardiac disease. The incision extended from the middle of the clavicle in front down over the pectoral regions to the lower part of the axilla, and behind, passed over the scapula down to meet the anterior incision.

After severing the middle of the clavicle, the great vessels were ligated, the brachial nerves divided high up, the muscles divided and the scapula freed from its attachments. There was little hemorrhage, and the wound healed readily. Microscopic examination of the growth showed it to be a mixed spindle, and round, called myeloid sarcoma.

A Fatal Case of Secondary Hemorrhage Four Days Following the Removal of Adenoids.

By Dr. Perry G. Goldsmith, Belleville, Ont. This paper deals with the case of a child operated on by Dr. Goldsmith for obstructive deafness due to enlarged faucial tonsils. The operation was not unusual, and the condition of the patient, on the second and third day after the operation, was apparently satisfactory; on the fourth day, however, repeated and alarming attacks of hemorrhage set in, resulting fatally in a few hours. There was no history of hemophilia. The patient was under the care of the family physician at the time of death, and as no *post mortem* could be obtained, the cause of the hemorrhage remained unknown.

Occlusion of Posterior Nares.

By Dr. H. D. Hamilton, Montreal. The patient was a young man, aged 17, who complained of constant discharge from right nares, with complete obstruction of the same side. Duration of the condition about twelve months. On examination, the patient presented a complete bony partition occluding the right side. Family and personal history was negative. Treatment: The bony wall was perforated, and the opening further enlarged by graduated bougies.

The Telephonic Properties of the Inflamed Abdomen; A Sign not Hitherto Described, Due to Paralysis of the Bowel in Peritonitis.

By Dr. Geo. A. Peters, Toronto. In auscultating the abdomen with a view to ascertaining whether there was paralysis of the bowel in cases of appendicitis, typhoid perforations, traumatism, and other conditions which stand in a causative relation to peritonitis, Dr. Peters has observed that where the gurgling sounds due to the passage of gas and liquid in the bowel are absent from paralysis, the heart sounds are invariably very plainly present over the whole abdomen. In intense cases, particularly in children, both inspiratory and expiratory breath sounds may be heard. Dr. Peters' explanation of the phenomena is, unlike the healthy bowel—where the gas is retained in certain well-defined and circumscribed compartments, each constituting a complete retainer in itself, with vital walls possessing a muscular tonicity under nervous control—the paralyzed bowel, by reason of its flaccid and atonic condition, permits an entire change in the disposition of the contained gas; the entire distended abdomen becomes practically and acoustically considered, a continuous column of air or gas, of the precise

principle of the stethescope. The effect of this is further heightened by the rigid abdominal wall, which acts as a sounding board. The prognostic significance would seem to indicate an unfavorable termination in those cases where the sign is very well marked in cases of septic origin.

On the Use of the Subcutaneous Injections of Paraffin for Correcting Deformities of the Nose.

By Dr. G. Grimmer, Montreal. Dr. Grimmer spoke briefly of various other deformities which had been corrected in this manner. In the preparation of the paraffin, it is first sterilized by subjecting it to high temperature. It is then injected by means of a sterilized syringe. In the case of the nose, the inner canthi of the eyes should be protected from the spreading of the paraffin, by firm pressure applied to the sides of the nose by an assistant's fingers. After injection the parts are moulded by operator as required.

After treatment: Collodion is to be applied to the needle puncture, and cold compresses to control edema of the nose and eyelids.

Some possible dangers from the treatment are, paraffin embolism, and necrosis of the skin over the parts.

Dr. Grimmer exhibited two patients successfully treated in this manner; also two rabbits which had been subjected to similar injections.

A Case of Filariasis in Man Cured by Operation.

By Dr. A. Primrose, Toronto. A man from the West Indies suffering from lymph scrotum presented himself for treatment and gave a history of attacks of fever which suggested the presence of filariæ. On examination of the blood one found the embryos present in large numbers. The embyro filariæ were found in large numbers at night, but disappeared from the blood during the day. An operation was performed and a large portion of the scrotum removed. The excised tissue was carefully examined by teasing it in salt solution, and a parent worm was discovered and removed alive. This proved to be a female, and it was subsequently fixed and mounted in a suitable manner for microscopic examination. Subsequent to the operation the filaria embryos entirely disappeared from the blood, and the inference was that the parent producing the embryos had been removed by operation.

The parent worm was afterwards carefully studied by Dr. J. H. Elliott, M.D., Toronto (late of the Malaria Expedition to Nigeria from Liverpool School of Tropical Medicine), and a report of his investigations, with drawings of the worm, formed a part of the paper as communicated by Dr. Elliott.

General Session.

FIRST DAY—AFTERNOON.

Address in Surgery, "The Contribution of Pathology to Surgery."

By Dr. John Stewart, Halifax, N.S. Owing to the unavoidable absence of Dr. Stewart, this paper was read by Dr. J. W. Stirling, Montreal. (See page 569.)

President's Address.

On the evening of the first in the Arts Museum Dr. Francis J. Shepherd, of Montreal, delivered the annual presidential address. (See page 541.)

SECOND DAY—FORENOON.

A general meeting of the association opened with a discussion on diseases of the gall-bladder and bile ducts. Dr. Alexander McPhedran, Toronto, introduced the medical diagnosis in this discussion. He mentioned the fact that the gall ducts are narrower at their entrance to the bowel than in other parts of their lumen, and as they lie nearly horizontally the outflow of bile is easily retarded or obstructed. The ducts are much exposed to infection from the intestinal tract. Of the cardinal symptoms in these cases Dr. McPhedran considered jaundice the most common, while pain varies, but is generally intense. The attendant fever is generally due to toxic absorption. The main diseases to be considered in differential diagnosis are, catarrhal and suppurative cholangitis and acute yellow atrophy. Most catarrhal conditions are infective, but the chills and fever may occur without pus formation. The most common germ present is the common colon bacillus. In the gangrenous cases the symptoms are often ill defined. A most characteristic sign of gall-stone is the recurrence of the attack.

Dr. A. D. Blackader, in discussing the treatment of gall bladder affections, said he would confine himself principally to catarrhal forms of the disease. He considers the condition more commonly due to altered secretion of the bile ducts, the altered mucus causing inspissation of the bile. Infection of bile he thought takes place in two ways, through the bile ducts and through the portal circulation. In the matter of treatment he considers that no drugs stimulate the flow of bile to the same extent as the bile salts. The flow is increased by exercise and deep breathing. Diet should be carefully considered, should be simple, and as far as possible should contain a large amount of fat. Such patients should drink plenty of

pure water or mineral water. The patients should also have due regard to a proper method of dress, no corsets or constricting clothing should be worn.

Surgical diagnosis was introduced by Dr. James Bell, of Montreal. He said it was common to find early vague symptoms of gastro-intestinal indigestion, which were often found to be present for a long time before an acute attack was precipitated. He spoke of the colon bacillus and the typhoid bacillus as common causes of infective conditions.

The subject of surgical treatment was introduced by Dr. J. F. W. Ross, of Toronto. In commencing his paper, Dr. Ross expressed a certain lack of faith in the so-called medical treatment of gall-stones. Speaking of some details of gall-stone operations, Dr. Ross advocated drainage through Morrison's pouch. He laid great stress on the free use of gauze packing to prevent leakage into the peritoneal cavity. In gangrene and empyema of the gall-bladder he does not advise removal of the gall-bladder but prefers opening, flushing and draining. In many cases of cystic enlargement of the gall-bladder, however, he advised entire removal of the viscus. It is well to remember, after removal of the gall-bladder, that gall-stones may form in the liver and be passed out into the intestines. He considers mucus fistulæ, which occasionally follow operation, as the most troublesome, and said the evil should as far as possible be prevented by the use of a small drainage tube. He also drew attention to the importance of being sure that the drainage tubes did not become blocked.

The discussion of the surgical treatment was continued by Dr. G. E. Armstrong, Montreal, who recognizes and recommends the employment of medicinal treatment first in gall-stones, etc. He does not advise removal of the gall-bladder, for stone in the cystic duct. He recommends lavage of the stomach before operating on all gall-bladder cases, and as it is difficult to know what the surgeon may encounter on opening the abdomen he advises the administration of calcium chloride before and after operation to prevent possible hemorrhage.

Dr. Dudley Allen, of Cleveland, Ohio, next spoke "On the Importance of Early Operation on the Gall-Bladder." He considers, in view of the fact that an accurate diagnosis is often impossible, an exploratory incision at least should generally be made early, when, he claims, it is often found that many obscure cases are quite amenable to surgical treatment, and, in fact, would fail to recover if we were to temporize. He recited a number of cases where the diagnosis was uncertain, where he had made an exploratory incision and had often been gratified with the results.

The subject was further discussed by Sir William Hingston, of Montreal, and Dr. Alex. H. Ferguson, of Chicago.

"On Foreign Bodies in the Vermiform Appendix."

By Dr. James Bell, of Montreal. In this paper the writer expresses his opinion that appendicitis never depends on the presence of foreign bodies in the lumen of the appendix. There is little doubt, however, that when foreign bodies gain entrance accidentally into the appendix they aggravate an otherwise septic infection. Among the foreign bodies which he has found in the appendix are, in two cases pins, in two cases seeds, in one case wood fibre, in one case gall-stones, and in another case a fish bone.

Dr. Bell's paper was further discussed by Mr. Irving Cameron, of Toronto.

MEDICAL SECTION.

SECOND DAY—AFTERNOON.

Kernig's Sign. The Frequency of Occurrence, Causation and Clinical Significance.

By R. D. Rudolf, Toronto. This paper contained the results of an investigation carried out in the different hospitals of Toronto. A large number of patients of all ages were examined, suffering from divers troubles, and the angles at the hip and knee accurately measured in over 200 of them. In 162, Kernig's sign was present in 97, that is, in over 60 per cent. It was always absent in perfectly healthy children. Dr. Rudolf considers that a more convenient plan is to extend the knee and then flex the hip as far as possible. Sometimes there is more than the usual degree of stretching of the ham string possible, and this extra flexion can by the writer's method be exactly measured when Kernig's sign could not show it. Of the 97 cases in which Kernig's sign was present, in 59 an angle of less than 165° at the knee could only be obtained, and of these in 10 cases the angle was 135° or less, showing a very marked degree of the sign. These 59 cases were of all kinds and only one of them was meningitis. Dr. Rudolf then went on to state that none of the theories of explanation of Kernig's sign were satisfactory as to its occurrence in meningitis.

Multiple Sarcoma. Report of a Case.

This case was reported by Drs. F. N. G. Starr and J. J. MacKenzie of Toronto. Dr. MacKenzie read the notes on the case. No autopsy could be made of the case. The patient was a female thirty-eight years of age, a seamstress. The personal or family history had no bearing on the case. For a number of years before 1901, the patient had a goitre, which, under treatment, almost disappeared in the winter of 1901. In April

1901, a lump about the size of a pea was noticed slightly to the left of the middle line of the abdomen near the symphysis pubis, hard but painless and subcutaneous. In May two or three appeared in the middle line an inch above the umbilicus; then two or three were discovered in the back. In June two others appeared to the right of the middle line of the abdomen. In July several additional lumps were discovered in the right breast, in size from a pea to a bean. Loss of weight occurred. In August the liver was noticed to be enlarging. Commenced taking arsenic in September. In October a large tumor appeared in the left breast, and a small one was also noticed in the left thigh. Patient began to suffer from rheumatic pains. In November and December the tumors appeared in enormous numbers over the chest and back, abdomen, thighs and arms above elbows, neck and over back, sides and top of head. In January, 1902, chains of tumors, bean sized, were noticed in the cervical region, submaxillary and suboccipital regions. By March the 8th she had thousands of tumors, most quite hard. Excisions were made and microscopic examination revealed a type of spindle-celled sarcoma, in which the prevailing cell was very long. As regards treatment, the patient took arsenic with no influence on the condition. Thyroid extract produced slight diminution in the size of the tumors. Patient died.

Without autopsy one cannot say where the primary seat of the disease was, although from the great involvement of the liver, that might be the source of the disease.

On Some Points in Cerebral Localization, Illustrated by a Series of Morbid Specimens and some Living Cases.

At an early morning session held in the Royal Victoria Hospital, Dr. James Stewart conducted this clinic.

On the Asylum—The Hospital for the Insane—and the Study of Psychiatry.

Dr. Stuart Paton, Baltimore, Md., advocated hospitals or wards in Insane Asylums, for proper treatment of acute cases. He also pointed out the benefits to be derived from having medical men to form a consulting staff to an asylum.

Anesthetic Leprosy.

Two very interesting patients, father and son, were presented by Dr. C. N. Valin, Montreal, according to whom, they proved to a certainty, the contagiousness of this disease. From the way they had progressed under treatment Dr. Valin considered the cases hopeful.

Dr. Burnham read a paper, "A New Departure in the Treatment of Hypopyon Kerato-iritis."

It is the most severe type that his paper deals with, *i.e.*, pus in the centre of the cornea, pus in the anterior chambers, severe iritis and cyclitis. Local remedies are always strongly insisted upon in the treatment advised by all authors. The doctor, however, discards them completely, except dropping in atropine once daily. His constitutional measures are his combined treatment, viz., mercury and the iodide of potassium taken internally, and pilocarpine given hypodermically. The result is most satisfactory and he holds superior in every way to that of the usual treatment. He always draws the attention of physicians to the suggestion that diseases in other organs of an acute degenerative character ought also to be as susceptible to the influence of this treatment as the eye. For further particulars he refers to his articles in the *Archives of Ophthalmology*, *The Ophthalmic Review*, *The Lancet* (London).

Surgical Section.

SECOND DAY—AFTERNOON.

Report of Three Cases of Congenital Dislocation of the Hip.

By Dr. A. E. Garrow, Montreal. The etiology of this condition is not well established, but heredity seems to play a part. Dr. Garrow spoke of two methods of reduction; (*a*) bloodless method, (*b*) through an incision. The chief obstacle to reduction is generally due to fibrous stricture of the lower part of the capsule. Dr. Garrow's experience has been mainly by the open method. This paper was further discussed by Dr. Shepherd, of Montreal.

The Operative Treatment of Goitre with a Report of Cases.

By Dr. Ingersoll Olmstead, Hamilton, Ont. As the medical treatment of goitre is very unsatisfactory, an operation is recommended in the following conditions: First, as soon as a goitre becomes dangerous, that is when attacks of dyspnea occur, or inflammatory changes occur, or there is the slightest suspicion of a malignant degeneration. Second, all enlarged thyroids having a tendency to grow towards the aperture of the thorax, even if they are movable. Third, goitres that have reached considerable development from the formation of single large colloid nodes. Fourth, when with a moderate goitre, symptoms like those of Basedow's disease appear accompanied with an increased development of the goitre. The operation advised is the one usually performed by Kocher and is done under cocaine anesthesia. It consists of a transverse sym-

metrically bowed incision, with its convexity downwards, from the outer surface of one sterno-mastoid muscle to the other, higher or lower according to the position of the goitre. The skin, underlying platysma and fascia of the sterno-hyoid and sterno-thyroid muscles are reflected upwards. The fascia joining the muscles in the median line of the neck is then divided as well as the outer fibrous capsule of the gland. The half of the gland which is most involved, is then shelled out of its capsule, the superior and inferior thyroid arteries tied, the isthmus cut with goitre clamp and ligated. The remaining attachments are then ligated and portion removed. The wound is closed with a subcuticular wire suture without drainage.

Twelve cases operated on during the past year were reported. The average stay in the hospital was seven days. The resulting scar was very slight, and little or no pain was complained of during the operation.

The Pathologic Prostate and Its Removal Through the Perineum.

By Dr. Alex. H. Ferguson, Chicago, Ill. In opening his paper Dr. Ferguson said he proposed to discuss more particularly hypertrophy of the prostate. Some of the microscopic changes in the hypertrophied prostate are, first, increased weight—may be up to eight or nine ounces; second, greater size; third, any part or the whole of the gland may be involved. Shape varies very much. Microscopically Dr. Ferguson found all hypertrophied prostates were benign in character. He also found frequent evidences of inflammatory changes. The effects produced may be stated as, first, the prostatic urethra is contracted and elongated; second, the vesical meatus is often rendered patulous and sometimes obliterated; third, the ejectulatory ducts are also often patulous, allowing regurgitation of the semen into the bladder, and they are also often obstructed. The effects of obstruction on the kidneys and bladder are too well known to require discussion. Treatment: Dr. Ferguson's method of removal is by the perineal route. He uses a prostatic depressor introduced into the urethra, then elevated in such a manner as to press the prostate down in the perineum. The fingers of the left hand are passed into the rectum as a guide, and then he makes one bold incision through the perineum down to the prostatic capsule. Dr. Ferguson exhibited some special instruments devised and used by himself in this operation.

The Surgical Treatment of Enlarged Prostate.

By Dr. G. E. Armstrong, Montreal. Dr. Armstrong exhibited a specially constructed suprapubic vesical speculum, devised by

himself, with a lateral opening which allows the prostate alone to come well in view in the speculum. The speculum can be packed around with gauze to protect the parts from possible burning, the offending lobe or lobes are then cauterized with the thermocautery. Dr. Armstrong reported seven cases successfully operated on. One point of advantage in this operation lies in the fact that the cauterized surface does not admit of septic absorption. He urges this method in early stages of prostatic hypertrophy.

The paper by Dr. Ferguson, and also that of Dr. Armstrong, was discussed by Dr. James Bell, Montreal; Sir Wm. Hingston, Montreal; Mr. Irving Cameron, Toronto, and Dr. Elder, Montreal.

EVENING SESSION—SECOND DAY.

At the evening session of the second day the "Address in Medicine" was delivered by Dr. Wm. Osler, Baltimore. (See page 552.)

The X-Ray as a Therapeutic Agent.

By Dr. C. R. Dickson, Toronto. Dr. Dickson said the explanation of the rationale of the X-ray is at best as yet but a hypothesis. Fortunately we have a practical proof of its utility as a therapeutic agent in many conditions. Dr. Dickson has used it successfully in the following cases: Nevus, lupus vulgaris, tubercular joints, scleroderma, subacute articular rheumatism (it relieves pain in many cases), neurasthenia, carcinoma of the stomach (this patient gained weight), and in carcinoma of the rectum, which case is also improving.

Dr. G. P. Girdwood, of Montreal, read a paper on "The X-Rays, Diagnostic and Therapeutic," and exhibited a number of photographs.

"The X-Ray in Cancer" was the title of a paper by Dr. A. R. Robinson, of New York. A strong plea is that the X-ray largely does away with the knife, and leaves little scar. It is probable that all superficial cancers can be removed by the X-ray if seen early. In a delicate locality, such as the eyelid, the rays should always be used, as paste or the knife will do more harm. When malignant growths have spread deeply, the X-ray may be considered our best treatment.

SURGICAL SECTION.

THIRD DAY—FORENOON.

The first paper was, "Remarks on the Sympathetic Ophthalmia," by Dr. G. Herbert Burnham, Toronto, followed by a paper on the "Ocular Manifestations on Systemic Gonorrhea," by Dr. W. Gordon M. Byers, Montreal

A paper on "Excision of the Cecum" was read by Dr. O. M. Jones, of Victoria, B.C. Dr. Jones cited four cases operated on. The first case lived about two years after. A *post mortem* proved that the cancerous growth had not recurred at the point of the original operation. Symptoms in all cases were, griping pains in the abdomen, loss of weight and irregular action of the bowels, together with the presence of a mass in the region of the cecum.

On Three Cases of Perforating Typhoid Ulcer Successfully Operated On.

Dr. F. J. Shepherd, Montreal, reported these cases: First, as to technique. Dr. Shepherd has always made use of the lateral incision and has usually found the perforation near the ileo-cecal valve. By this incision the site of the perforation is more easily found than by the median. He has always closed the incision by turning in the bowel and making use of a continuous Lembert suture, employing fine silk. Other ulcerations in the neighborhood are treated in the same way. Rubber drainage is employed. There is always suppuration in these cases, and usually a hernia as a result. General anesthesia is always used in these cases. Early and rapid operation, seeing that there are no others likely to perforate. The first case was in a woman of thirty, with ambulatory form. The second was a woman of twenty-eight years, admitted on about the eighth day. It is of interest in this case that although perforation had taken place there was no leucocytosis. The third was a male aged thirty in the third week, seized with severe pain, and one hour after there was obliteration of liver dulness and marked leucocytosis. All are quite well with the exception of hernias.

Dr. Lapthorn Smith, of Montreal, presented a paper on "A Case of Total Extirpation of the Urinary Bladder for Cancer." General considerations: Evolution of the operation in Europe and America, methods employed, results in 100 reported cases. In the author's case there had been previous removal of fibroid by myomectomy. This was followed by cystitis, which was treated first by medicine, then by injection, and afterwards by drainage by permanent catheter, and then by button-hole operation, when the cancer was detected by the finger. Extraperitoneal removal of bladder and affected part of ureter and pelvic glands. Recovery from operation, but death on the seventh day from exhaustion.

THIRD DAY—GENERAL MORNING SESSION.

Election of Officers: Dr. T. G. Roddick, M.P., Chairman of Nominating Committee, presented the report of this committee. London, Ont., was selected as the next place of meeting.

President, Dr. W. H. Moorhouse, London, Ont.

Vice-Presidents: Prince Edward Island, James Warburton; Nova Scotia, John Stewart, Halifax; New Brunswick, W. C. Crockett, Fredericton; Quebec, Dr. Mercier, Montreal; Ontario, Dr. W. P. Caven, Toronto; Manitoba, Dr. McConnell, Morden; North-West Territories, J. D. Lafferty, Calgary; British Columbia, C. J. Fagan, Victoria.

Local Secretaries: Prince Edward Island, C. A. MacPhail, Summerside; Nova Scotia, Dr. Morse, Digby; New Brunswick, J. R. McIntosh, St. John; Quebec, R. Tait McKenzie, Montreal; Ontario, Hadley D. Williams, London; Manitoba, J. T. Lamont, Treherne; North-West Territories, D. Low, Regina; British Columbia, L. H. McKechnie.

General Secretary, George Elliott, 129 John Street, Toronto.

Treasurer, T. B. Small, Ottawa.

Executive Council: Drs. Moore, Eccles, and Wishart, London, Ontario.

Dominion Health Bureau: Dr. E. P. Lachapelle, Secretary of the Board of Health of the Province of Quebec, moved the following resolution, seconded by Dr. J. R. Jones, Winnipeg, which was carried unanimously:

"*Whereas* public health, with all that is comprised in the term 'sanitary science,' has acquired great prominence in all civilized countries, and

"*Whereas* enormously practical results have been secured to the community at large by the creation of health departments, under governmental supervision and control; and

"*Whereas* greater authority and usefulness are given to health regulation suggestions when they emanate from an acknowledged Government Department;

"*Therefore be it resolved*, that in the opinion of the Canadian Medical Association, now in session, the time is opportune for the Dominion Government to earnestly consider the expediency of creating a separate Department of Public Health, under one of the existing ministers, so that regulations, suggestions and correspondence on such health matters as fall within the jurisdiction of the Federal Government may be issued with the authority of a Department of Public Health.

"That copies of this resolution be sent by the General Secretary to the Governor-General in Council and to the Honorable the Minister of Agriculture."

Treasurer's Report: Dr. H. B. Small presented this report. Three hundred and seventeen members had been in attendance, nearly 100 larger than any other previous meeting. All outstanding indebtedness had been paid and there was in the treasury $325 to the good of the Association. This announcement was received with the greatest satisfaction. Votes of thanks were passed to Mr. and Mrs. James Ross, of Montreal, in whose handsome grounds had been tendered a garden party on the afternoon of the first day, to the Local Committee and Transportation Committee, special reference being made to Drs. C. F. Martin and J. Alex. Hutchison for their indefatigable efforts for the success of the meeting, to the treasurer, the president, and the profession generally for their hospitality. Thus was closed the greatest meeting in the thirty-five years of the Association, and it is to be hoped that the profession throughout Canada will still further take an active interest in the national organization.

Editorials.

THE MONTHLY NURSE'S FEES.

A recent decision by His Honor Judge Morson has created considerable interest. A gentleman living in Toronto engaged a nurse for the expected confinement of his wife, and told her to hold herself in readiness on and after a certain date. One week after the date mentioned the nurse was summoned and looked after her patient in a satisfactory manner. She then rendered her account for services performed, both for her week of waiting and her weeks of service. As payment for the week of waiting was refused the nurse entered suit. There was practically no conflict of evidence. The question for decision was—Should a nurse when engaged for a fixed date be paid for the time of waiting after that date as well as for the time of actual service? The Judge, in his decision, said "yes."

This decision has given general satisfaction to the physicians and nurses of Toronto for more reasons than one. It is thought that a nurse should be paid from the date of engagement, because she is prevented, as a rule, from doing any nursing during the time of waiting. It is also satisfactory to get a decision upon a question which has heretofore been considered somewhat doubtful from a legal standpoint.

It would always be well, however, for the public and nurses to understand each other. The writer had a patient a short time ago who had to pay a nurse for four weeks of waiting and four weeks' of service, *i.e.*, one hundred and twenty dollars. In this instance the nurse felt much more uncomfortable about the matter than the patient, and found the waiting time exceedingly irksome. In addition, she disliked the idea of taking money which she had not earned in the ordinary way.

We have frequently advised both nurses and patients not to make definite arrangements for fixed dates in confinement cases. Some people can ill afford to pay for three or four extra weeks. Again, premature labor or miscarriage may terminate pregnancy weeks or even months before the expected time. In consideration of the various contingencies which may arise, engagements for fixed dates are not always desirable. If, how-

ever, a patient is desirous of obtaining the service of any nurse for whom she has a decided preference, she should be prepared to pay the extra amount for the waiting time as now definitely required by our courts of law.

THE CANADIAN MEDICAL ASSOCIATION.

There seems to be a general consensus of feeling among those who went to Montreal, that the recent meeting of the Canadian Medical Association cannot be described without the use of superlatives. Next to the meeting of the British Medical Association in Montreal in 1897, it was the largest and best medical gathering that has ever been held in Canada. There were 330 members present. The largest number in attendance at any previous meeting was 280 at Toronto in 1899.

There are many reasons why a successful meeting of the Canadian Medical Association should give great satisfaction to the physicians of our Dominion at the present time. It is hoped by many that we are growing to some extent out of our provincialism. The efforts of public-spirited physicians like Roddick and others associated with him to devise some machinery whereby Dominion registration might be substituted for Provincial registration in Canada, have done much to broaden our ideas. The Ontario Medical Council has done much in the same direction during the last two or three years by actively co-operating with Dr. Roddick. We hope that the success of recent years will continue to grow, and that physicians in all parts of Canada will aim at making the Canadian Medical Association the great medical society of our Dominion.

The next meeting will be held in London. Whether the choice of that city was the best we know not. We do know, however, that physicians of London and vicinity are pleased, and will do all in their power to extend a hearty welcome to visiting members, and to make the meeting in all respects a pronounced success. We hope and believe that all the prosperous cities and towns of Western Ontario will gladly give the Londoners a helping hand. The election of Dr. Moorehouse to the Presidency has given universal satisfaction. It is expected that in 1904 we will go out to see our genial and good friends on the Pacific Coast.

Personals.

Dr. Arthur A. Small, formerly of Toronto, has commenced practice in Chicago.

Dr. R. A. Pyne returned to Toronto September 26th, after a pleasant tour in Europe.

Dr. D. W. Montgomery, of San Francisco, spent a portion of his summer holidays in Toronto.

Dr. Walter Proudfoot Thomson, of Toronto, was married to Miss Carruthers, September 30th.

Dr. H. C. Burritt, of Wellesley Street, Toronto, returned home from Atlantic City on September 23rd.

Dr. W. P. Caven has given up general practice, and is devoting his time wholly to consultation work.

Dr. D. Campbell Meyers, of Toronto, is suffering from a broken shoulder blade, the result of a fall while playing polo.

Dr. Vrooman, M.P., of Lindsay, Ont., reached Winnipeg September 10th, on his way home from a tour through the West.

James Roberts, M.B., (Captain Roberts, Army Medical Corps) sailed from New York for England, September 26th. He will probably spend a year at post-graduate work in London and Vienna.

Dr. J. G. Rutherford, the Dominion Government Inspector, was elected Vice-President of the American Association at the meeting in Minneapolis. It is probable that the next meeting of the Association will be held in Ottawa.

Dr. George McDonagh, of Toronto, has just returned from a *flying* trip to England. He left home September 12th, sailed from New York following day by *Campania* for Liverpool, spent a week in London, returned to New York, and reached Toronto October 4th.

Dr. C. M. Jones, of Victoria, B.C., spent a few days in Toronto, as the guest of Dr. Bruce Riordan, after the Montreal meeting. He hopes to see many physicians of Toronto at the next meeting of the Canadian Medical Association in the Far West. It is generally understood the Dominion Association will meet at Vancouver and Victoria in 1904.

Obituary.

BERTRAM SPENCER, M.D., M.R.C.S. (Eng.)

We have to announce with deep regret the death of Dr. Spencer, of Toronto, which occurred, September 28th. After service in the British navy he commenced the study of medicine in Trinity Medical College, Toronto, in 1875, and graduated M.B. University of Toronto, 1879. He then went to England, and after post-graduate study in London became a member of the Royal College of Surgeons. He commenced practice, in Toronto in 1880, and was well known as one of the prominent practitioners of this city up to the time of his death. After holding a position on the teaching staff of Trinity Medical College for some years he was appointed Professor of Medical Jurisprudence in the University of Toronto in 1892, and also Associate Professor of Clinical Surgery in 1898. After his appointment to the Chair of Medical Jurisprudence in Toronto University he was made a coroner for the city of Toronto.

Dr. Spencer was possessed of great ability and marked individuality. He especially excelled as a lecturer and clinical teacher. He was highly successful in his professional work, and greatly loved by his patients. As a man he was honest and true in the highest sense of the words. He hated cant and humbug, and was always frank and outspoken in the expression of his opinions as to such things. No words of ours can adequately describe the deep grief of his many friends at the present time. We can hardly realize that dear old Bertram has gone; we can scarcely speak about his death. Yet he was not old—he was only 49; and, until recently, was one of the most healthy looking men in Toronto. As a midshipman and sub-lieutenant in the navy for seven years he was always rugged. He was a good all round athlete, a boxer, a cricketer, and in recent years a golf player.

A terrible calamity befel him in 1900 when his only child died after a rather long illness. Later in the same year he had an attack of septicemia, from which he never fully recovered. Shortly after this (early in 1901) his wife had a serious illness and for some time was not expected to recover. One year after his child's death his wife was supposed to be dying. What Spencer suffered during that day no mortal knows. Contrary to expectations, Mrs. Spencer recovered and Bertram appeared to be gaining rapidly for a few weeks. Towards the end of the College session, however, he commenced to fail. He was very weak and had glycosuria. He went to England in June

and returned about the middle of September. Shortly after his return he slipped in a trolley car and injured his head. Erysipelas set in and after an illness of a few days he died somewhat suddenly.

I have very pleasant recollections of him, especially in our associations for ten years in the Medical Faculty. We met frequently, he waiting to lecture while I was leaving the lecture room. I generally found him sitting on a certain chair near a certain window. It gave me pleasure to see him—far more than I knew till now. His bright smile and cheery "halloa, old man," always did me a lot of good. This morning after delivering my first lecture to the final class I entered the faculty room, and instinctively looked towards the chair in the old corner—but Bertram wasn't there.

JOHN S. TENNANT.

Dr. Tennant, of Lucknow, died at his home, September 11th, aged 60. He graduated from the University of Toronto in 1865. He was one of the most popular physicians in Western Ontario. He was also a prominent Mason, an enthusiastic curler, and an ardent Conservative in politics. The cause of death was cholera morbus.

Correspondence.

CORONERS' FEES.

To the Editor of CANADIAN PRACTITIONER AND REVIEW.

SIR,—I would like to call the attention of yourself and readers to the low inquest fees chargeable by Ontario coroners. I think they are too low for the time and labor necessary at inquests. I have just finished two enquiries, in one of which there was one adjournment, in the other on two bodies killed in a railway collision with two adjournments, in which some twenty hours' sitting was put in and the total fees only amounted to $27.60, with preparation and sitting the best part of three days taken up. Many simple cases, without recognizances would not average more than ten dollars, are longer, more important seldom run over sixteen or eighteen dollars. Now, sir, I think the remuneration is altogether too small I think the affidavit before a magistrate should be $1.00, taking recognizances, $1.00 each, every adjournment $1.00, view of body whether an inquest be deemed advisable or not $5.00, and mileage twenty cents each way, or would it be better to have a bulk sum? A County Judge gets from $50.00 to $100.00 for each Court; why not a coroner acting in like capacity get the same? We have to admit that law as a profession is more awake to its own interests. A lawyer gets a good round schedule fee while the doctor takes the miserable pittance thrown him by insurance companies and fraternal societies at their figures, not his. Why should this be? and why should coroners be content with fees that are not fairly remunerative?

Do you not think that it would be well to form a Coroners' Association to discuss the common interest, and if desirable make such representation to the Government as may lead to a desirable increase?

I think I cannot do better, after calling your attention to this matter, than leave it in the hands of some of our city brethren to take action if they think well of the suggestion.

I am sir, yours truly,

P. PALMER BURROWS.

Lindsay, Sept. 30, 1902.

Miscellaneous.

Epistaxis.

The most positive and dependable remedy we now have for the checking of nasal hemorrhage is the extract of suprarenal gland, or adrenalin. Within a very brief period after applying to the part the mucous membrane becomes blanched and the bleeding ceases. In quite all varieties of capillary hemorrhage from mucous surfaces this method of treatment is highly efficacious.—*The Clinical Review.*

Experiments with Adrenalin.

Elsberg, in *American Medicine,* gives a very comprehensive report of a series of experiments with adrenalin chlorid as an addition to solutions for local anesthesia. He says: "Adrenalin chlorid, which is the active blood pressure-raising principle of the suprarenal gland recently discovered and investigated by Dr. Takamine, is now on the market as an amorphous crystalline powder, or in the form of a 1-1000 solution. It is a powerful astringent, so that a drop of a 1-10,000 solution will blanch the conjunctiva in from thirty to sixty seconds.

"Elsberg has been carrying on a series of experiments with this new drug, and finds that if a drop of a 1-1000 solution be injected under the normal skin a slight burning sensation is felt, but no anesthesia occurs. Within one minute an area of skin about two inches in diameter becomes blanched and almost bloodless, and remains so from six to twelve hours. The same effect will be observed if a 1-5000 to 1-15,000 solution be used, but with these weaker solutions the blanching appears only after a few minutes and disappears after three to six hours. After the blanching of the skin disappears the tissue apparently returns to its normal condition. No deleterious effects, such as sloughing or subcutaneous ecchymosis, ever followed these injections. In the course of the investigations cocain and eucain solutions containing adrenalin in the proportion of 1-5000 to 1-20,000 were used. It was found that the anesthetic properties of the cocain and eucain were preserved, while the adrenalin caused the same blanching of the tissues as previously observed, which extended one to two inches beyond the area infiltrated.

"In performing minor operations under cocain, to which 1-5000 to 1-20,000 adrenalin had been added, only the larger vessels bled when cut across. The smaller vessels were contracted so tightly that no blood could escape from them and therefore there was no oozing. It was unnecessary to sponge off the wound a single time during an operation. The healing of the wound was not interfered with in any way. Upon theoretical grounds it was expected that secondary hemorrhage would take place in from three to twelve hours, as the

effect of the drug passed off. This, however, has not been the case in the thirty cases operated upon. Experience with the drug is still small, and what will be the result in operations upon larger wounds remains to be determined.

"For small operations, the addition of adrenalin chlorid is of distinct advantage in that it raises the blood pressure and overcomes the depressing effect of the cocain, at the same time it entirely does away with the oozing of blood from the wound."

In genito-urinary work the writer has used adrenalin. It checks hemorrhage, but in several cases it was followed by secondary hemorrhage, rather free. Its use is now limited to circumcision in very young infants, and it is there applied in very weak solution when the open method is used.

DR. ROBERT F. WEIR, of New York, said that he had found a new use for the useless appendix. In operating upon a case of dysentery the appendix bobbed up into the wound, and he made it fast to the skin and cut off its end. He then used it as a means of injecting medicine into the intestines to cure the dysentery. Early operation could not be too much insisted upon. When the diagnosis was made, one should operate. The disease caused more danger than the operation.—*Medical Record.*
