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## Original Articles

### PRESIDENT'S ADDRESS—CANADIAN MEDICAL ASSOCIATION.*

BY W. H. MOORHOUSE, M.D., LONDON, ONT.

*Gentlemen of the Canadian Medical Association:*

I desire to convey to you my very high appreciation of the honor conferred by you in electing me to the highest position within the gift of this Association. I hope to prove worthy of your confidence, and that your time at this meeting may be spent both pleasantly and profitably.

On behalf of the medical fraternity of London and vicinity, I extend you a most hearty welcome. Also on behalf of this Association and city, I extend fraternal greetings to those of our fraternity who come from abroad, as delegates and visitors.

Truly, this is the age of associations. No matter what the calling may be, we are sure to find a union or association connected with it. People have learned the truth of the old adage, "In unity there is strength." Social progress during the past thirty years has been most marked. All along the line we see the word *progression* in large and vivid characters. By these unions or associations the status of society at large is raised. The chief elements, or the main essentials, of an association are (1) the ethical side, by which its members are united and harmony promoted among them, through the settling of internal differences, by stating more clearly our duty toward each other; (2) the scientific side, through which a higher state of efficiency

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pertaining to the craft or profession is attained; (3) to resist aggression from outside sources. These advantages apply equally as well to medical societies as to any other form of society. The medical society or association gives each member of the profession an opportunity of meeting his fellow practitioner from throughout the length and breadth of the land. They hear the papers and debates on the various subjects of interest, medical and surgical, in which are detailed the failures and the triumphs over disease. A single paper or discussion may suggest to the mind of the hearer a train of thought leading up to untold benefit to himself and those under his care. It gives him renewed and increased enthusiasm without which we are unable to work successfully or comfortably. The minds of men are not all of the same cast, hence we find all the sides and shades of a question taken up and inspected critically in all their varying aspects. Failures as well as successes are recorded and discussed. The confession of mistakes and failures, while it requires a great deal of moral courage, is a means of imparting great information of a profitable character. The most brilliant and astute observers, the most successful practitioners, have all made mistakes and had dismal failures, the recital of which serves to encourage the more timid by showing that the leading men do not live and work on a higher plane than the ordinary observer, that these men have their perplexities and trials to overcome, all of which affords so much instruction and encouragment to those who are diffident and less courageous, pointing out that "genius consists (chiefly) in an infinite capacity for taking pains." Hints of a valuable character are frequently dropped in discussion, even from the most humble, which may take root and bear fruit in the minds of the most erudite.

The beneficial results of these meetings are not confined to science. The ethical and social side is quite as important. Medical men are inclined to live within themselves or within certain rings or circles to the exclusion of their neighbors. At the medical association all barriers are, or should be, broken down. The hatchet of professional strife should be laid aside and the brethren dwell together in peace and learn to know each other, to know that our confreres are not the professional cutthroats and free lances we had imagined, to know they belong to a profession whose members are united in the bonds of fellowship, laboring with enthusiasm at the greatest of all sciences, viz., the alleviation of human suffering and the conquering of disease.

## THE ANCESTRY OF OUR PROFESSION.

The domain of science and literature has been aptly likened to a republic, wherein all its votaries are regarded as being upon an equality. It makes its own laws, each member having an equal right with his fellow. Truly, there is no royal road to learning. All must keep the same weary vigils, and pass through the same exacting ordeals. As scientists, we owe no allegiance to any nationality, kindred, race or tongue. We all tread the same broad platform, each contributing his quota to the general fund of knowledge. Each generation has handed down its experience which has been verified and perfected by following generations. Thus the general fund of knowledge has grown, gradually becoming more and more defined, facts being weighed, and great truths established.

Let us look for a moment at the origin or early history of our own beloved profession, in other words, "our ancestry." Melchisedek, king of Salem, whose name signifies "King of Righteousness," who brought forth bread and wine and blessed Abraham, was both king, priest, and physician. He is regarded as the great prototype of Christ the God-man, who went about preaching, healing the sick, and raising the dead. In Melchisedek, as was usual in Egypt and India, we find a combination of the priesthood and physician. Melchisedek, being both king, prophet, priest and physician—a noble ancestry!—our profession has, as we have seen, both a royal and priestly origin.

In Hellenic history, the first allusion to medicine of an authentic character, is found in the Homeric poems, which were written sometime about 1050 B.C. In allusions there made, it is clear that medicine had already a history. We find a distinct and organized profession, with rules and regulations as to the treatment of injuries, which must have taken many ages to formulate, also we meet with terms in nomenclature which long after were used by Hippocrates. The Homeric heroes themselves are represented as having considerable skill in surgery, and able to attend to ordinary wounds and injuries. But there appears to have been a professional class represented by Machaon and Podalirius, the two sons of Asclepius, who are treated with great respect. It would appear, too, from the Æthiopis of Archinus that the duties of these two were not precisely the same. Machaon's task was more especially to heal injuries, while Podalirius had received from his father the gift "of recognizing what was not visible to the eye, and tending what could

not be healed." Here we have the first indication of the separation of medicine and surgery. Ascelpius, or Esculapius, appears in Homer as a Thessalian king, not as a god, although in later years divine honors were paid him and he was worshipped as a god.

From this it appears that the origin of our profession, both in profane and in sacred history, has a most noble ancestry, being both royal and sacred in character, dating from time immemorial. Seeing, then, the very high position which our profession occupied in the past, and the very important, nay, essential, part it plays in the welfare of civilized nations in the present age, how necessary it is that its members be men of culture. In the early pioneer life of this continent, especially the newer settlements, the chief struggle consisted in providing homes and other necessaries of life. Few and far between were the luxuries, as the struggle for existence was keen. The more provident had an eye toward laying up a fund for a time of need. The earlier generations were brought up in the stern lap of necessity. Books were scarce and difficult to obtain. Teachers, beyond those having a mere rudimentary education, were not easy of access, yet under these discouraging circumstances we find men of prominence in our profession, for some are born to be great. As time went on and wealth increased, schools of a more advanced character were established. Our educational system has been founded upon a broad and liberal basis, so that we now boast of having one of the most admirable systems of education, from the common schools up to our universities. With our admirable educational facilities, which are not within the easy reach of all who are ambitious to excel, what excuse have we for a low standard for our matriculation in medicine? Our profession has always been regarded as one of the learned professions, whose members are, or should be, cultured gentlemen. The poet Ovid tells us, "Ingenuas didicisse fideliter artes emollit mores"—(to have faithfully studied ingenuous arts softens manners). I am well aware that culture does not depend entirely upon mental training. A great deal is due to the innate character of the individual, then the early environment shapes and moulds the mental tendency or temperament, exaggerating or repressing, as the case may be.

In no walk of life does the inner life of the individual shine out so brightly, unless it be that of our sister profession, the clergy. In no profession is the highly cultured man more truly honored, neither is any class of society more powerful for good

than the cultured, polished physician. Emerson says that "a gentleman is a man of truth, lord of his own actions and expressing that lordship in his behavior." In no way can this high ideal be so readily and effectually obtained as in the words of Ovid—"To have faithfully studied ingenuous arts softens manners."

Our country, although vast in extent, has not, until lately, attracted the attention of the better class of emigrants and settlers to the extent its importance demanded. Our great agricultural and mineral wealth has only recently been properly and fairly ascertained and placed before the world. We are now on the eve of a great and continued prosperity.

One of the great essentials to success or prosperity of any kind is for those concerned to have faith in themselves and their cause, whether it be our country, our profession, or a more elevated plane of life in general. A tone of intense optimism prevails, betokening that confidence and faith which ensures our prosperity. With increased wealth comes greater leisure which leads to a higher culture, a higher plane of thought.

Let us, as a profession, be alive to our needs and establish a high ideal, and endeavor to live up to it. Although we may not be able at once to attain this high standard, yet it should ever be before us, constantly stimulating to further efforts. We should encourage our students to be thorough and well grounded in their preliminary training. A great deal can be done by our medical associations in advocating the higher education of students in medicine. You can strengthen the hands of those who have in charge the matriculation and medical curricula. I do not intend to say that a high standard of education will make every man great and brilliant. Some will be great and brilliant in defiance of all the defects of our curriculum. If there be inherent greatness in spite of disadvantages, how much greater eminence may such men be enabled to attain under superior advantages?

## DOMINION REGISTRATION.

A uniform standard of medical education throughout the Dominion is much to be desired, and the advantages derived therefrom are many. Our country is vast, and many sections are being rapidly populated. We had all hoped that we were within reach of a solution of the vexed problem of Dominion Registration. All the provinces, even the Province of Quebec, appeared satisfied with the provisions of the Bill when passed.

You will remember that the original draft of the Bill contained the clause, "when five or more provinces consent." This clause was obnoxious to the Dominion Government, and it compelled those in charge of the Bill to change it to "all the provinces must consent" before the work can be begun. This action of the Government, which we now know was done in order to placate Quebec, was particularly unfortunate, as it was the means of wrecking Dominion Registration for the present.

Five provinces, viz., Nova Scotia, New Brunswick, Prince Edward Island, Manitoba, and the North-West Territories, have passed the necessary legislation—to the effect, that any one possessing the license of the Dominion Medical Council may enter any of these provinces and practise his profession on the payment of the registration fee of the province. The N.-W. Territories enacted in addition, that *this qualification alone would admit to practise there.* The Province of Ontario has not, as yet, endorsed the Bill. The Premier, Mr. Ross, has expressed himself as being very strongly favorable, and volunteered to take charge of it himself, but there is no doubt that his unstable tenure of office, and the very grave charges brought against some members of his cabinet, were the chief causes of its being left over, through pressure of weightier matters.

British Columbia, also, is in a very unsettled state, politically, the legislature being unable to get through its legitimate business. Those in favor of Dominion Registration who have watched the trend of public sentiment in these two provinces, feel assured that, as soon as the political atmosphere becomes cleared, they will express their approval of the Act by adopting it. Quebec is the one great obstacle, the legislature having rejected it by a large majority, but I am proud to say that the English members voted solidly for it.

The New Brunswick Legislature, in their Bill accepting the provisions of the Act, recommended that the Dominion Government be urged to permit the provinces, asking for the Dominion Act, to go on and allow the other provinces to follow, just in the same way that confederation was brougth about, by the four provinces, Ontario, Quebec, Nova Scotia, and New Brunswick accepting the Confederation Act—Prince Edward Island and British Columbia, with later Manitoba and the N.-W. Territories, coming in when convinced it was a good thing.

Since the defeat in the Quebec house, Dr. Roddick, who had charge of the Bill, has been endeavoring to induce the Dominion Government to allow him to bring in an amendment to the Act

on lines similar to the original draft, whereby five or more provinces, which is a majority of the total number of provinces, being ready to accept the Act, the Dominion Council may be formed and put into operation. So far, he has not succeeded, the answer being that Quebec is certain to come in.

Now, present indications show that Quebec has no intention of accepting the Act as it stands at present, unless amendments of a most damaging character are made to suit this province only, and which will render it entirely unacceptable to the other provinces. The solution to the difficulty, as it now stands, is for the other provinces, if they want Dominion Registration, to rise in their might and insist upon an amendment such as Dr. Roddick has urged upon the Dominion Government. Should the Province of Quebec desire to continue as at present, for certain selfish reasons, and adopt "*the dog in the manger*" policy, is it just that the other provinces be kept out of their rights?

## MEDICAL LITERATURE.

During the past decade, literature has made considerable advancement in our Dominion. With increasing wealth we have an increasing appreciation of the fine arts and all forms of culture. Literature has not lagged behind the sister arts. Our daily papers are equal to those produced in any country. Our weekly and monthly periodicals, both in medicine and general literature, are rapidly improving. Literary aspirations have been growing and bearing fruit in the form of many delightful books.

It is true our literature has not yet assumed a type peculiarly our own, but has taken the tone and characteristics of our great Motherland. This, in a great measure, is to be accounted for by the abundance and cheapness of all kinds of literature brought from other countries, which has, to a great extent, smothered out our native talent, while the struggle for existence in a new and growing country has been too great to allow of time and energies being spent along this line. Now that general literature is making such advances, I feel constrained to express a fervent hope that medical literature may make an equally good showing in our country in the near future, and trust some of our men may enter the fields of medical authorship.

The hospital equipment throughout the Dominion is rapidly improving and being put on a most excellent footing. Our larger cities, with their well-equipped hospitals, should be in a position to give our men a thorough post-graduate course.

PATENT MEDICINES AND PROPRIETARY PREPARATIONS.

I am anxious to call your attention to the patent medicine craze, and the great danger therein to the unsuspecting public. It has been estimated by most reputable authority, that more than $60,000,000 are annually expended in this manner alone. One can scarcely grasp, at first thought, the true situation, nor its gravity. The evils are many and of a serious character. Certainly, not the least is the alcohol habit, which, insidiously insinuating itself under the apparently harmless form of a simple medicine, is stalking in our midst like a midnight pestilence. Many of these preparations consist largely of alcohol from 10 per cent. to 60 per cent. Various narcotics also figure largely in their composition, such as opium, morphia, codeia, cocaine, belladonna, hyoscyamus, chloral, bromides, etc., etc. These manufacturers publish glowing accounts as to the wonderful manner in which their nostrums were discovered, with a number of laudatory testimonials, many of them fictitious, some, I am sorry to say, being from prominent citizens, such as clergymen, detailing the wonderful curative properties of these mixtures, the nature of the contents of which they are utterly ignorant. These circulars and papers are strewn broadcast throughout the land. The credulity of people in this respect is great, neither is this extreme credulity confined to the less educated class. The more ignorant and mysterious the source of the medicine, the more marvellous the testimonial and unworthy of belief, so much the greater is the confidence. Nostrum after nostrum is resorted to in vain effort for relief before consulting a proper medical adviser, losing much valuable time in allowing the disease to make greater progress; then add to all this the irreparable harm often done by the use of medicine contraindicated. Evil habits are frequently contracted, leading up to confirmed inebriety, also to morphinism, etc.

Many of these preparations are used in secret, the so-called secret preparations which are so largely advertised in the public press, suggesting evil thoughts and provoking curiosity in the minds of our youth, often leading to contamination. There is another class of preparations, in the form of stimulating tonics, made and sold by reputable pharmacists, which is frequently the cause of much mischief, particularly where they are self-prescribed, which is so often the case. I allude to such preparations as wine of beef and iron, coca wine, etc. These and similar preparations are frequently prescribed by people of apparently

strong temperance principles who would hesitate to use or recommend the ordinary alcoholic preparations. Those who suffer most from the use of these latter preparations, are delicate neurotics who are attracted partly by the high sounding names, which convey to their minds the idea that this is, indeed, the very thing which they require, and partly because it is pleasant to the taste and of a stimulating nature, giving them a feeling of temporary relief from their depression. After a time it becomes almost a necessity, leading frequently to the use of stronger preparations, ending in inebriety.

Cannot something be done to shield the public from this great evil? Shall we, the members of this enlightened profession, who see this monster, with its many-sided evils, daily flaunted before us, having its bold, indecent advertisements in our public press, pervading even our religious journals, thereby giving an apparent sanction, and clothing these nostrums with an air of responsibility; we who daily meet in our professional rounds melancholy examples of this terrible delusion—I say, shall we not raise our voices in loud protest against it? Can we not, unitedly, in some way, arouse public sentiment so that in some measure, at least, this evil may be rectified?

There is a law in France by which all makers of patent medicines are obliged to put the formula, both qualitative and quantitative, upon the package. Should there be any suspicion of fraud, officers are instructed to obtain samples from the dealers or vendors. Upon the suspicion being verified by analysis, the officers are empowered to prohibit further manufacture and sale. Our profession, which has done so much in the form of preventive medicine, so much for the advancement of the public health in the past, should not stop short while such important work remains to be done.

### THE PRACTITIONER'S DUTY TO HIMSELF.

A great deal has been said about the duty of the physician to his patient. I presume we are all quite familiar with this part of our duty. But there is another phase of the physician's duty, about which very little has been said. I allude to the duty of the physician to himself. The life of the general practitioner is a most arduous one; even the ordinary holidays, and that most beneficent gift to man, viz., the seventh day's rest, are practically denied him. As a result he is constantly in harness. This, coupled with the great anxieties of his profession which so largely consists in dealing with that most uncertain of all things,

viz., life, health and human nature, keeps him almost constantly in an anxious condition. Through time, if doing a large amount of work, and having ambition and pride in his profession, wishing to excel, it begins to wear upon him, his vitality becomes lowered, and he gets to be neurasthenic, being both mentally and physically below par, which seriously lessens his capacity for work, and impairing its effectiveness through impatience and irritability. Who is there among us that cannot recall many times in his professional life when he has been unequal to the occasion through some mental infirmity? Now, these mental infirmities are largely the result of overwork, along with the perplexities and anxieties with which we are so constantly beset. Many of the brightest ornaments of our profession die early, or are laid aside from work as a result of this terrible strain. The profession, no doubt, is much overcrowded. The old adage, "There is room at the top," has been overdone. Many good and brilliant men perish in the ascent, and when the top is reached the strain is often too great to retain the position. In order to overcome the effects of this great strain, complete relaxation is necessary, such as is obtained in an occasional holiday, with change of scene. It is also well to cultivate some particular hobby, as long as it does not entail too great a drain upon the pocket. The perusal of literature other than medical subjects, attendance upon concerts, lectures, the opera, are all useful in bringing into use another set of faculties or brain cells which unfortunately are too often allowed to lie dormant by the average medical man. A prolonged rest, however, with change of scene, is, without doubt, the best treatment for the broken-down neurasthenic medical man. Some years ago, I came across an able article on the subject, wherein the writer made the assertion that the busy practitioner should have every seventh year entirely free from professional work, in order to compensate for the prolonged strain and the loss of the seventh day's rest. In fact, let us be wise, and prescribe for ourselves just in the same manner we would for our patients.

Medical men, as a rule, do not follow strict business methods in their financial affairs. The chief reasons for this grave and serious irregularity in business methods are: (1) the irregular life they are obliged to lead, especially in severe epidemics and unhealthy seasons. Long drives and irregular hours soon upset method and order, and the accounts rapidly assume a state of chaos. Finally, his affairs get into a state of inextricable confusion, the unfortunate medico being driven into despair and obliged to make a settlement with his patients, often consider-

ably under the proper value through the want of a proper statement to guide him. I have known a physician to pass an entire week without even taking a note or making an entry of his daily work. (2) Many are too sensitive to send out their accounts regularly, and are too modest to claim a proper honorarium, or, it may be, they are too dilatory in this work to do so in a regular manner. Why should the medical man who has gone to great expense and labor, sacrificing his time for years, while securing his professional training, hesitate to claim a fair honorarium? No class of the community is called upon to make greater sacrifices of time and comfort, or who so readily and conscientiously respond to calls of distress, or so abundant in deeds of charity. Then what should he fear in claiming a fair pecuniary reward, or why should he defer the day of reckoning?

The progressive physician will be ever on the alert to provide himself with the latest devices to save time and labor, so as to allow all the freedom and relaxation consistent with the demands of his profession. The minor affairs of professional life are apt to be thought too insignificant to occupy the attention of such an assembly as this learned body, yet we must remember that life is made up of a series of details, each important in itself. We cannot always live in the clouds or upper strata of science, but must descend from time to time to the more homely affairs of life, in order to refresh and invigorate ourselves for the higher plane of thought. I have endeavored to confine my remarks to some of the more commonplace subjects which interest us all alike, leaving the scientific side of our professional needs for your admirable papers and discussions.

## ADDRESS IN GYNECOLOGY, CANADIAN MEDICAL ASSOCIATION—THE EARLY DAYS OF OVARIOTOMY.*

By Matthew D. Mann, A.M., M.D., Buffalo, N.Y.

The rising generation, which has only seen abdominal surgery in its full development, is apt to forget the trials and struggles of those who first attempted to open the abdomen, and who finally put the operation on a firm basis. Few can realize now the amount of opposition, both within and without the pro-

*Read by title at meeting of the Canadian Medical Association, London, Ont., August 26, 1903.

fession, which existed. McDowell, as we shall hear, was threatened with death; and later operators were almost ostracized for attempting this "murderous operation." In the last twenty years, the triumphs of surgery have been so great that now no operation, no matter what its magnitude, is condemned untried, and the result is awaited with patient and indulgent expectation. But only forty years ago this was not so, and at the time that abdominal surgery had its beginning, the feeling of opposition to "butchering," as they called it, was most emphatic and unreasoning.

Abdominal surgery had its beginning in America. Many attempts have been made to wrest this triumph from us, but all have failed. The claims of the United States are now generally admitted as being clearly proved, and the name of the first operator rescued from oblivion and duly honored.

The first abdominal section, having for its object the removal of an ovarian tumor, was done by Dr. Ephraim McDowell, on December 13th, 1809, in Danville, Ky. Although practising in what was then the backwoods, McDowell was by no means an uneducated, ignorant, or pretentious adventurer. The operation was done after long consideration, after a full understanding of the difficulties with which he had to contend, and a careful planning of the technique. He had been a student of the great John Bell, in Edinburgh, and while there had heard it suggested that perhaps an ovarian tumor could be successfully removed. He formed the determination at that time that, if the proper case ever presented itself, he would make an effort to operate. After his return to Danville, he was sent for to see a Mrs. Crawford, residing a long distance away. McDowell found her trouble to be an ovarian tumor, and gave a fatal prognosis unless she was relieved by the knife. To quote Dr. Gross:

"After a most thorough and critical examination, Dr. McDowell informed his patient, a woman of unusual courage and strength of mind, that the only chance for relief was the removal of the diseased mass. He explained to her, with great clearness and fidelity, the nature and hazard of the operation. He told her that he had never performed it, but that he was ready, if she were willing, to undertake it, and to risk his reputation on the issue, adding that it was an experiment, but one well worthy of trial."

Mrs. Crawford accepted the opinion of the physician with great coolness, and promptly assured him that she was not only willing, but ready, to submit to his decision, asserting that any hope of relief was preferable to the agony she suffered. She

travelled on horseback—the only mode of locomotion in those days—to the home of Dr. McDowell, sixty miles away. So great was the weight of the tumor resting upon the pommel of the saddle, that a large contusion was formed on the skin.

On the day of the operation, McDowell was conscious that an angry and excited mob of men had collected outside of his house, openly threatening to hang him if his experiment of "butchering a woman" did not succeed. There is no doubt that if the woman had died, McDowell would have lost his life at the hands of his infuriated townsmen.

I have often wondered which was the braver—the man or the woman—the woman, to subject herself to an operation which she knew had never been done, an experiment which would cause intense suffering at the time, anesthetics being then unknown, and the result of which must be uncertain; the man, to risk his life for the mere sake of doing good, without hope of reward, except, perhaps, a modest fee, and with certain death confronting him if he failed. It seems to me that the bravery of the man was the greater. He put his life at stake without any necessity impelling him, except his love of humanity and his desire to do good; while the woman had death staring her in the face, and was accepting an opportunity which had never yet been offered to anybody, to escape the terrible, persistent suffering which would certainly come. To quote from Thomas Keith: "She had not much to lose—a few months only, it may be, of ever-increasing suffering—and she might gain much by an operation, having much to gain." Fortunately for the good of mankind, and of womankind in particular, the operation was successful.

The technique of the operation sounds a good deal like an operation done to-day. The incision was made, about nine inches long, a little to the left of the median line. The tumor was then opened, its contents allowed to escape; after which it was removed from the abdomen, the pedicle tied by strong silk ligature, and the tumor cut off. After this the patient was turned upon her side, to allow all the blood and fluid to escape. This having been accomplished, she was turned on her back, the intestines replaced, and the wound closed by an interrupted suture, the ligature hanging out of the lower end of the incision. Dressings were applied, and the patient put to bed. Five days later, McDowell, on visiting her, found her making her bed. In twenty-five days she returned home in good health, and lived for thirty-two years after, she having been forty-seven at the time of the operation.

McDowell afterwards operated on twelve cases, eight of the

thirteen being successful—a record which was not beaten until the advent of antiseptic surgery.

McDowell is described as a tall, strikingly handsome man, with an erect and commanding figure and lustrous black eyes, which seemed to penetrate the very thoughts of those who looked into them. His refinement and intellectual powers were of the highest type. Many stories are told illustrative of his abilities of mind: his unflinching adherence to duty in the face of adversity and difficulties seems to have been one of his strongest points. Stories are told of his adventurous rides through the woods, of fording rushing torrents filled with ice and driftwood, and other anecdotes which illustrate the nobility and force of the man's character. He might well have stood for the original of MacLure, Ian MacLaren's justly famous hero.

McDowell was a man of strong religious convictions, and we have left to us a very forcible petition offered by him to Almighty God, a few hours before the appointed time to make the first ovariotomy. Who will say that it was not in answer to this prayer that his hand was guided to bring to a successful termination his momentous and trying experiment, fraught with interest, not only to the operator, but to humanity? It was certainly a trying hour to him, and we can well understand that he should have asked for strength and guidance where he thought he could best obtain them. His biographer says: "His abiding faith in the efficacy of prayer was beautiful, and no doubt his remarkable success in the field of surgery can be largely attributed to his strong convictions and unwavering faith in the Great Jehovah."

After McDowell no operations of this kind were done until 1821, when Dr. Nathan Smith, Professor of Surgery in Yale College, performed a successful ovariotomy. He was just as much entitled to the honors of a discoverer as was McDowell, for he had never heard of the Kentucky surgeon or of his operation. His methods were different, but the result was just as good.

The third successful ovariotomist was Dr. Alban C. Smith, of Danville, who had been a partner of McDowell's. He operated in 1823. A few scattering operations were done after that, but it was not until 1843-44 that a new impulse was given by the success of Dr. John L. Atlee, which was still further aided by his brother, Dr. Washington L. Atlee, of Pennsylvania. After this, cases became more common, and, taking the country at large, several were reported every year, until in 1855 there were twenty-one cases, with six successes and fifteen deaths. This heavy

mortality seems to have had the effect of diminishing the number, as they fell off rapidly, until in the years 1860-63 there were only three in each year. In 1870, Dr. Atlee reported his 200th case, while Kimball had had 121, and Dunlap, Peaslee, J. P. White, McRuer, Thomas, Bradford, Emmet, and Sims had had from 60 to 12 cases each.

In England the operators who first made reputations were Tyler Smith, Baker Brown, Chas. Clay, Thomas Bryant, Thomas Keith, and Spencer Wells. To the latter we must unquestionably give the credit of having done an immense deal to influence the profession, and to overcome the opposition which, up to 1860, had existed in England more than anywhere else. Many prominent men opposed the operation, very broadly denouncing those who attempted it as murderers, as guilty of malpractice, and using all their influence to keep the operation down. After Sir Spencer Wells' paper in 1860, opposition was silenced, and from that date it may be said that ovariotomy was adopted as a legitimate resource in England.

My own experience of ovariotomy began in 1870, when I entered the Strangers' Hospital, in New York City, as interne. Dr. T. G. Thomas was appointed gynecologist to this hospital, which had just been established; and, filled with the ardor of enthusiasm, he soon collected a considerable number of cases for operation. During the year that I served as senior assistant and house-surgeon, I had under my care twelve operation cases, nine of which recovered. As can be readily imagined, an ovariotomy in those days was a great event. I have seen in the operating room at the hospital, witnessing and advising, and perhaps assisting, Dr. Thomas, Sims, Peaslee, Emmet, Noeggerath, Sands, Willard Parker, and others of the great lights of surgery in New York at that time. As we had no trained nurses, Dr. E. L. Trudeau, who was my senior by six months, and myself had to take the entire charge of the cases. The nurse would call us frequently during the night, and we would pass the catheter, give hypodermics of morphine, and do all the nursing which is now so much better done by our skilled and trained assistants.

Dr. Thomas's theory in those days was that a great deal of the danger was due to the shock to the nervous system, which led to inflammation; and in order to quiet the nervous system, the patient was put under the influence of opium for a few days in advance of the operation. We can see here the influence of Alonzo-Clark treatment of peritonitis: if large doses of opium would cure peritonitis, smaller doses would prevent. And so, in

order to head off the disease, of which everybody stood in holy terror, the opium was given before the operation was commenced.

Dr. Peaslee was the first to perform drainage, which he did as early as 1855. He passed a catheter through the vaginal wall into Douglas's cul-de-sac at the time of an operation, and left it there, corking the end. Septic symptoms supervening, he removed the cork, and allowed the fluid to come away, and followed it by copious injections into the peritoneal cavity of salt solution, and later by a weak solution of chlorinated soda. He published a paper on the subject in 1870. Thomas immediately took up the idea, following Peaslee's plan of putting a linen tent into the lower angle of the wound. Soon after this the idea of a drainage tube came from Koeberle of Germany. Thomas immediately began its use.

I remember very well the first drainage tube (1871), which was an old-fashioned, hard-rubber vaginal syringe, an inch in diameter, with four holes at the round end. This was introduced on the second day, the tent of cloth which had been placed in the lower angle of the wound the day of the operation, being removed.

Dr. Thomas also followed Peaslee by washing out the abdomen in a septic case, after the operation, using a solution of hyposulphite of soda. As early as 1871 he washed out the abdomen before closing the wound. Antiseptic ideas were then just beginning to dawn. Carbolic acid had just been discovered, and Lister was making his first experiments in what we now call "Listerism," experiments which were destined to revolutionize surgical methods, and to make the name of Sir Joseph Lister one of the greatest in the record of the benefactors of the race.

Although, as already mentioned, drainage was used before Sims began to do abdominal work, it was his paper, published in 1872, which really popularized drainage in abdominal cases.

Dr. Thomas, up to 1870, had had twenty-seven ovariotomies, and was only excelled by one other operator in New York, namely, Dr. Peaslee, who had had twenty-eight. Sims, who never made a great name as an abdominal surgeon, had had only twelve. It must be remembered that at this time all other forms of abdominal surgery were unknown and almost undreamed-of. I remember very well when Pean's book came out, about 1871, detailing the histories of a large number of fibroids that had been successfully removed, that Dr. Thomas expressed very grave doubt as to the truthfulness of the histories.

In those days the after-treatment of the cases was made very

much more difficult, and the convalescence very much slower, by the method of treating the pedicle. While McDowell had used the ligature, dropping the pedicle, and had done so successfully, others seemed to be afraid of following his example. The great doubt was as to what would become of the piece outside of the ligature. This, it was feared, would die, and poison the patient. Many of the deaths in the early cases were attributed to this cause. To overcome this difficulty, various plans were suggested. Baker-Brown used the cautery, and, as Mr. Tait pointed out, had he lived, no doubt abdominal surgery would have been advanced many years; for, although we cannot help acknowledging an immense debt as due to Sir Spencer Wells, still we cannot deny that he kept back ovariotomy and abdominal surgery by his energetic advocacy and use of the clamp. His plan was to clamp the pedicle, leaving it on the outside, the abdomen being closed tightly around it, the clamp preventing it from falling in.

Dr. Thomas was a bold and brilliant operator, a great diagnostician, and full of invention and resources. His record after these early years is well known, though he came a little too late to reap the full advantages of modern abdominal surgery. To my association with Dr. Thomas in those early days I must attribute my interest in this branch of medicine, and, to a great extent, my success. To no man, living or dead, do I owe more than to him. In fact, had it not been for Dr. Thomas, I should not have held my present positions, as it was by his influence that I became Dr. White's successor and a resident of Buffalo. Dr. Sims, although I knew him well and have seen him do some plastic work, I never had the pleasure of seeing open an abdomen. Dr. Peaslee I also knew well, but never saw him operate.

In those days the New York Obstetrical Society was the scene of many exceedingly interesting discussions. Abdominal surgery and gynecology were making rapid strides in advance. Sims, Peaslee, Thomas, and Emmet were the four men who have done more for gynecology than any Americans who have ever lived. They were then making rapid advances, and in the Obstetrical Society the new ideas were proposed and weighed and discussed, to be afterwards tested at the bedside and on the operating table, and the results reported back to the Society. I was secretary for a number of years, and had the great advantage of being obliged to take down these discussions. I am sure that this was of great benefit to me, as it fixed in my mind a great many facts which I probably should not otherwise have learned.

Besides these greater lights, Noeggerath, whose name is well known as the discoverer of latent gonorrhea; Jacobi, still a

Nestor in the profession; besides some of the younger men, who have since made name and fame, were active members of the Society.

Buffalo took a prominent part in the early days of abdominal surgery. Drs. James P. White and Julius Miner were both pioneers. Dr. White probably did a hundred ovariotomies during his life, about 60 per cent. of which recovered, as far as I can learn. Dr. Miner never did so many, but he originated a principle which has made his name to be mentioned wherever the history of ovariotomy has been spoken of—he originated the idea of enucleation. This I had seen done by Dr. Thomas, but had never practised until I did my first ovariotomy in Buffalo.

My first case was done in Hartford, Connecticut, in 1879. The patient was a poor negress, and as she lived four miles in the country in a poor little farmhouse, I had to hire a horse each time I made a visit. I had to pay the nurse myself, and you can readily imagine, I did not make a fortune immediately out of the case. Still its effects on my future were greater than were at first apparent. The event was a great one, and my friend, Dr. Munde, came all the way from New York to assist me. He had never operated himself, nor had anyone else present even seen an ovariotomy. I found a dermoid cyst so adherent that I could not get it all out. I therefore cut off all I could get loose, and sewed the edges of the remaining portion to the edges of the abdominal wound. Two glass drainage tubes were used, one being put into the sac, and the other into the abdominal cavity. The patient convalesced very slowly, and required many visits. I estimated that the case cost me $50. Still it paid, for it gave me experience, and allowed me to say that I was an operator—great advantages when the call came to go to Buffalo.

To illustrate the fear which the early ovariotomists had of the peritoneum, I remember very distinctly a case which came to me a number of years ago. She had a large fibroid tumor and a tremendous ventral hernia. She told me that she had had an ovarian tumor, which had been removed by Dr. Miner, the first successful operation that he had ever done. She showed me a copy of an account of the operation, published in the *Buffalo Medical Journal* at that time. In this article Dr. Miner attributes his success to the fact that he did not pass his stitches through the peritoneum, but only through the skin and fat. This, while it does not explain the success of the operation, certainly explains the ventral hernia. I removed the fibroid, and sewed up the hernia, and sent the woman away cured.

Thus far I have spoken only of ovariotomy; but it is quite natural that the opening of the abdomen for the removal of ovarian tumors should have led to the same procedure for other purposes. In 1876, Dr. Robert Battey, of Rome, Ga., read a paper before the American Gynecological Society, on "The Extirpation of the Functionally Active Ovaries." He had performed his first operation in August, 1872. In 1879, Mr. Lawson Tait announced that he had done a similar operation, claiming priority over Battey. Prof. Hegar, of Freiburg in Germany, published in 1878 a paper on "The Castration of Women," his first case having antedated Battey's by a month. After the publication of these papers, the indications for opening the abdomen were very quickly widened, and the operation took firm hold upon the profession, being performed by operators all over the world; and at that time we may say that abdominal surgery, other than ovariotomy, had its origin.

I first removed the ovaries, March 11th, 1880, in Hartford, Conn., for a fibroid tumor. The first operation for the removal of the ovaries which was done in western New York, was performed by the late Dr. G. C. Clark, of Niagara Falls, 1882. I had the pleasure of assisting him; the operation was perfectly successful.

My first operation in Buffalo for the removal of the ovaries was in November, 1883. On March 4th, 1884, I did my first resection of intestine; likewise the first that was done in Buffalo. In October of the same year, I removed a large fibroid tumor by supra-vaginal hysterectomy with the clamp. The woman is still living.

Although I did many operations for the removal of ovaries and fibroids from that time on, it was not until February, 1888, that I removed the first pus tubes. After this, the indications for operations and the number of cases increased rapidly; but I did not meet with a case of extra-uterine pregnancy until 1890. I operated on four during that year. As I was almost the only operator practising abdominal surgery in Buffalo then, these were doubtless the first operations of their kind which were done there.

We thus see that abdominal surgery is of very recent development, the greatest growth and extension of the operation having taken place within the decade between 1880 and 1890. It may now be said to be nearly perfected, and, except in operations on the gall-bladder and the stomach, we cannot look forward to many more advances.

What has made possible the great successes of modern ab-

dominal surgery? Two things will at once come to the mind of each of you—anesthesia and antisepsis. Without these there could have been no development. Although the early operations were done without anesthesia, the operation now undertaken would be impossible under similar conditions.

Nor is antisepsis—or, perhaps, more strictly speaking, asepsis—any less important. The mortality rates of the pioneers are often frightful to contemplate; and only where life was directly threatened, as in ovarian cystic disease, were operations warranted. So recently as 1880, the writer collected all the known cases of oophorectomy—150, with a mortality of 20 per cent.; and in 1884, Bigelow collected 359 hysterectomies for fibroids, with 58 per cent. mortality. Now all this is changed, and we open the abdomen, even in comparatively simple diseases, with perfect confidence in the result, as far at least as sepsis goes. So much has been accomplished by Lister, Pasteur, and their coworkers.

But, after all, is it not to the American workers that a very large share of the mead of praise is due? Who have done more than McDowell, Nathan Smith, the Atlees, Kimball, Miner, Sims, Peaslee, Thomas, Robb, Battey, Sands, McBurney, and Bull—to say nothing of the men of our own day, who have improved, extended, and perfected the work of their predecessors? Certainly America has a right to be proud of the credit of originating and perfecting this important branch of surgical work. Not only did ovariotomy originate here, but hysterectomy for fibroids was first done by Kimball. Peaslee and Sims originated drainage; Battey first removed diseased ovaries; Willard Parker did the first operation for disease around the appendix; while Sands, McBurney, Senn, and Weir were the pioneers in appendectomy. Bull did the first operation for bullet-wound of the intestines; and Rogers was the first to advocate the operation for ruptured tubal pregnancy. Kimball's lead in removing fibroids was followed by many, and was so perfected by the work of Stimson, Polk, Baer, Pryor, and others, that it is now known as the "American operation." Robbs was the first to do the modern operation of cholecystectomy, while the genius of Sims had a most important influence in advancing this particular branch of surgery.

But I need not add to the list. It is recent history and familiar to all students of contemporary literature.

When we look back and see what has been accomplished, it seems almost miraculous—all fear of the peritoneum gone; sepsis nearly banished, and scarcely an organ in the abdomen which

has not been successfully attacked and removed. Liver, gall-bladder, spleen, stomach, intestines, kidney, uterus, tubes, ovaries, bladder—all have yielded to the surgeon's knife and their possessors relieved of serious or fatal diseases. It is a proud record. Little did McDowell think, when he took up the knife to make his first abdominal section, to what it would lead, and of the years of agony which would be relieved and the thousands of lives saved. All honor to the men who have done this work. Their names should stand higher in the roll of fame than those of generals and conquerors. They have worked to relieve pain and suffering, and to save life, while the soldiers accomplished their ends only through the infliction of measureless agony and the sacrificing of countless lives.

## SOME BUSINESS ASPECTS OF MEDICAL PRACTICE*

By N. A. Powell, M.D., Toronto.

*Mr. President and Gentlemen,*—In all the twenty-three years' existence of this association, the subject of the financial results of medical practice has never received formal consideration. When this fact was innocently mentioned by me a short time ago at a meeting of your committee on papers and business, that puissant body passed an order-in-council making me responsible for the presentation of this question before you. In spite of my objections and my suggestion of others for the honor, the committee next found a place for my name on the preliminary programme. When it so appeared, a certain person, whose advice I often receive, and perhaps not quite so often adopt, enquired with airy sarcasm if the chances for one's being selected to read a paper before the O.M.A. was in inverse proportion to one's knowledge of the subject to be taken up. I side-stepped her question then, but in the privacy of our closely tyled session I freely admit that, like certain medical examiners we have known, I may ask questions for which I have no answers ready.

For more than a quarter of a century I have been watching the course of medical men in practice, and trying to ascertain the causes of complete or partial failure in those who might reasonably have been expected to have been successful. Many die

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leaving no provision for those dependent upon them, others become medical derelicts, floating half-submerged, useless to themselves or to the world, and a positive danger to all who approach them unguardedly. A third, and always a larger, class have simply been disappointments to all who, in earlier years, had builded hopes of success for them. I present to you no statistical study, but give you instead certain clinical impressions, and shall ask how these accord with what has fallen under your own notice in watching the drift of medical life.

When I first entered practice I think it could be safely said that the larger proportion of those who did not succeed owed their failure to the over-use of alcohol. That is not so to-day; the profession to-day is moderate in the use of liquors, as a result of increasing self-respect and self-control; misuse of them is, in consequence, a factor having far less importance than it had even a few years ago. The doctor who now drinks to excess cannot keep the pace, and must go down and out more rapidly than of old. In this country twenty-three may be taken as about the average age for entering practice, and fifty-three as the age of death for physicians as a class. This gives us thirty years as a period within which success is to be won or lost. The time and money expended in obtaining an education and gaining a practice will represent not less than five or six thousand dollars. Since most Canadians are comfortably poor at the start, or at least are free from the paralyzing influence of wealth, we may estimate that it will take four years in the country and eight in the city for the average graduate to have cleared off all arrears of debt and reached a self-supporting basis. The modern physician, it must also be remembered, is a highly evoluted individual, with tastes that must be satisfied, and needs that must be met, in addition to the ordinary living expenses of himself and of those dependent upon him. Such provision for age and sickness as every prudent man sets about making must also be taken into account.

It has been said by some one that for an ideal practitioner there are three requisites: First, he must be a thorough gentleman; second, he must be a thorough physician; and, third, he must be a thorough business man. I believe that the third is the attribute most frequently lacking, and in this lies the cause of most failures.

Let me ask your attention to a few points which appear to suggest the cause of some failures. One difficulty our craft meets as many others are meeting it—the demand for first-class

pay by those only able to do third-class work. That is the trouble in all other Unions as well as in ours; however, we have no walking delegate to come around and say, "This man who has made a botch of the case must be retained. You shall not discharge him and employ a better man in his place." (Laughter.)

I think it is bad business for a physician in general practice, making an income of, we will say, over $3,000 in the country, or $4,000 in the city, to attempt to be his own book-keeper. His time is, or ought to be, too valuable for such work. If he tries to do so he will have to take the time either from his patients, or from his own needed rest and recreation. The best book-keeper he can possibly have is the one who has shown either that she had sufficient confidence in him or that she had sufficient confidence in her ability to manage him, to have married him. (Laughter.)

Year by year the world's work is passing, in larger and larger proportion, into the hands of women. They have long had more than a working majority in our churches. Some one puts it this way:

"In the world's broad field of battle,
In the bivouac of life,
The average Christian soldier's
Represented by his wife."

I do not say that this is right, but one cannot deny that it is so. Personally I am in accord with George Ade when he says, "It is a poor plan for a man to expect to slip through St. Peter's turnstile on Ma's ticket." (Laughter.) But no one else can take the same interest in a physician's books as the right sort of a wife —if only she be trained and trusted.

Accounts more than six months old in the city are far better handled by a collector—an honest, kindly, and tactful man—than by the practitioner himself. Such a one collects money which would otherwise never be obtained, and more important still he helps to weed out the people who are able to pay and won't—always the most unreasonable and exacting of patients. In the country it is a most valuable plan to try and get all accounts of a year's standing closed by notes. This will seldom be objected to if the notes are drawn, "Without interest if paid when due; otherwise, with interest until paid." The addition of interest hurries up the payment. I did some years of country practice, and without having recourse to the courts, excepting once to vindicate a principle, I was able to collect 92 per cent. of all accounts on my books—a fair and reasonable proportion. Knowing the

circumstances of one's patients, the charges can be made right to start with, and discounts never given excepting on account of poverty.

Another thing, in my opinion it is bad business for a man to neglect his correspondence, or to sit up late into the sleeping hours with it and his other writing, when by the combination of a card index system of case-histories and chest charts, a vertical filing system for correspondence, and all other records, a typewriting machine, and a stenographer coming in for a few evening hours each week, he can keep his writing not simply up to date, but up to the hour. So few physicians seem to appreciate the value of such modern aids to rapid and accurate work that I have thought it worth more than a passing reference. The necessary outlay is almost trifling, and by such a combination one is aided in obtaining that *maxima pars eruditionis*, which may be taken to mean the art of knowing where any desired information can be at once found. I had a compliment paid me along this line recently. Two friends were in consultation. One made an observation, and the other asked, "How do you manage to carry such things in mind?" The other replied: "I do not try to do so. When I want a thing I 'phone Powell, and he looks it up while I hold the line."

When a man has within him the potentiality of success *without* lodge practice, I believe it is bad business to ever touch lodge practice. (Applause.) The late Dr. George Wright, a conscientious man in practice if ever there was one, said to me in an almost pathetic way, "If I had only left lodge practice severely alone, and given the time it took to study, and to cultivating the practice I wanted to keep, it would have been far better for me." As a rule we get the value we challenge for ourselves, and lodge practice tends to lessen a man's fee-earning power and to handicap his future. Granting that there may be present an urgent need for keeping the pot boiling, if this is done by using lodge practice as fuel, it will, in the long run, prove even more expensive than coal did last winter.

It is bad business not to be, and to keep, good friends with our medical neighbors. Some are not easy to live with; this for the reason that lineal descendants of Ishmael, of Ananias, and of Caliban, occasionally drift into the medical profession, and make trouble for us. After differences, they are ready to make up and bury the hatchet—but they take care to leave its handle sticking out. (Laughter.) No honorable physician can fight with their weapons; he would have no better chance than a claw-

less cat in Hades. Perhaps, the best way is to strive for that height of calm philosophy which will enable one to consider the annoyances they cause as being purely educational.

Every medical man needs and should have one or more fads. How shall we define a fad? We must make the attempt since Plato has told us that there can be no rational discussion without a definition. Fads, according to my friend, Dr. J. L. Davison, are "mental antitoxines which overcome the poisons generated by cerebral over-activity." (Applause and laughter.) The best of these, in my judgment, are shooting, fishing, photography, and canoeing, but a score of others may be named for second choice. Even that refuge for senile decrepitude known as golf has a field of usefulness. Some of my friends, infected with the virus of this game, seem to think its field is a prairie.

It is bad business for a physician to go without a fairly long annual, and a number of week-end, or other interstitial, holidays. No grass growing under his feet means only too often an early crop growing over his upturned toes. From labors so exacting and imperative as his, duty to himself, to his family, and to his patients, requires that he should take the prescription he so often gives to others, and should seek rest and change. His holidays should be arranged for, insisted on, and always taken. Our great dramatist has said that—

> "Universal plodding poisons up
> The nimble spirits in the arteries."

Happy the man who heeds the warning, and for whom, as Thoreau said, "The woods are full of solicitations."

It is bad business, it seems to me, to drop behind the procession for want of a good working library. Two or three good journals are absolutely necessary. In addition to these the purchase and right use of the latest and best work, first in one specialty, and then in another, will help wonderfully to keep a man out of the ruts. Now, what do we find in the office of the average physician, let us say, down in Kentucky? Things are better here, of course. If there were any Kentuckians here I would say, down in Tennessee. Out-dated text-books, journals bound up and never opened after they come back from the bindery, and subscription sets forced by glib-tongued agents upon their unfortunate purchasers. Only this and nothing more! What wonder that such a library, so-called, should become a factor in the failure of its owner rather than an aid to his success.

Trying to do modern practice with an archaic outfit, or to do modern practice in offices unattractive, inconvenient, miserably equipped, dirty, disagreeable, and depressing, are causes tending strongly towards failure.

Let me ask a plain question: Is a man honest with himself or with those who trust him, when he attempts serious surgical work with outfit and preparation inviting disaster? If stinginess, not poverty, has limited the equipment, how grave is the responsibility. Look, if you will, into the ordinary obstetric satchel! Is it ready for the conducting of an aseptic confinement, and for meeting all emergencies of child-birth? Let each one of us, when he sits alone with his conscience, and seeks for the cause of a sepsis, answer this question.

Three or four other points occur to me as being elements in failure: want of thoroughness, want of decision, want of energy, and want of tact. The first of these runs through the work of many a man, and is a terrible handicap. Want of decision comes often from unduly considering the effect of what should be done upon one's immediate prospects in practice. It may prevent the right thing being done for a patient at the right time. Arnold said of Sophocles: "He saw life steadily, and saw it whole." I think the physician's attitude should be: determine what is right, and then go ahead regardless of immediate consequences, and looking to the whole life rather than to the present hour. The wise counsel given to the hero Sigurd in the Norse epic may be recalled:

> "Wilt thou do the deed, and repent it?
> Thou hadst better never been born.
> Wilt thou do the deed and exalt it?
> Then thy fame shall be outworn.
> Thou shalt do the deed and abide it
> And sit in thy place on high,
> And look on to-day and to-morrow
> As those that never die."

Want of energy—in other words, laziness—is often constitutional and incurable. The world, Emerson tells us, belongs to the energetic; certainly, no lasting success is to be won except by hustling, hard work. But the energy—the push—must be rightly directed. It is the hits that count—not the shots fired. When a small boy, in trying to get through a crowd, I found if I proceeded straight ahead I could make but little progress, but if I put one shoulder forward, and used it as a wedge, I got to the front and saw the circus. In war and in peace, in medicine and in surgery, if one studies the lines of least resistance and follows

these he is most likely to succeed. Some time ago a circular was sent to the successful men in a certain large city asking, Why is it that not more of young men succeed? One answer read, "Because there are so many of them looking for white shirt jobs." There is, however, such a thing as pushing business too far. Quite recently I saw the advertisement of a photographer which read: "Babies reduced to $2 per dozen." We cannot hope to meet a cut like that! (Laughter.)

The next feature to which I refer is want of tact; tact is not the right word, but it comes near it. I mean the discretion which can tell the best thing to say or do, and the best way to say or do it. In theological circles they have a better word than that. An old darkie preacher said, "Brethren, what we want is sanctifigumption." (Laughter.) Devotion to a patient's interests, and good judgment in advancing these interests, would mean about the same thing.

Please do not consider from what I have said that I have wished to convey the impression that success can be measured by the dollar sign. The commercial practitioner thinks of the money first. The true professional practitioner thinks first of his patient's interest, and then he thinks of his own proper remuneration. He has got to be paid for his work for he has got to pay others. He has got to protect those at home that he loves, or that he ought to have at home to love. (Laughter.) The love that does not protect its object had better be called by some other name.

I am willing to admit this, that no medical man who is a mercenary man, whose governing principle is mercenary, ever reaches the highest success in medicine, but a man who does not respect himself and make proper collections for the work he is doing, is not doing his duty. A wise man that I knew once used to say, "The quacks get rich, but they go to hell." (Laughter.) My own investigations have not been carried as far as that. (Laughter.)

Character—that all-important thing for everyone—consists in a man's steadily pursuing the things for which he feels himself capable. What he loves to do he is likely to do well and successfully. Supporting this view, let me conclude this rambling talk by quoting from Arnold's recently published notebooks: "Arise, be going, count your resources, learn what you are not fit for, and give up wishing for it; learn what you can do, and do it with the energy of a man." (Applause.)

# THE COUNTRY DOCTOR.*

BY J. S. SPRAGUE, M.D., STIRLING, ONT.

There is no composition in music which so pleasurably affects the soul of man as that termed a medley, provided such includes selections, although not classical according to modern ideas, that we heard in earlier days—those dear old melodies, such as our mothers were accustomed to sing, and our fathers delighted to hear. The memory of the good old times is awakened thereby. The present moments freed from despondency, less dismal do they appear, and the future made fair and bright; and projects of pith and moment seem to have no barriers towards being consummated, or hopes and future achievements to lose their brilliant coloring.

Brief sketches in medical literature or other writings serve equally to give us a pleasurable and instructive hour when relaxation is sought, often demanded by us who have bared our breasts and kissed the rod in the endeavor to show to our patients conclusively and clearly that death is a stupid blunder merely, and not a necessity of our lives. With these metaphors and similitudes as introductory, it would appear as desirable that for our title "Medical Medley" were better; for there are those who prefer that we designate or distinguish ourselves, not as doctors, but physicians, clinicians, practitioners, practicians, therapeutists, and other highly elaborated names, which philologic research does not in every particular claim or clearly sanction. Therefore, "The Country Doctor" as our headlight for this paper will remain, and our authority for its adoption is, that the title of doctor of medicine was first given in 1324 by the University of Astio in Italy.

It is admitted that he who selects to write these chronicles, these segments from the swirl of time and tide, should be one of those whose aspirations, virtues and impulses he has studied many years. The same ambitions that possess the soul of the recent graduate are such as we held in early days. They have not, however well planned, been realized in many instances—the prizes have been few, the blanks have been too numerous—illustrating too forcibly that

> "Our wills and fates do so contrary run
> That our devices still are overthrown,
> Our thoughts are ours, their end none of our own."

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*Read at meeting of Canadian Medical Association, held at London, August 25-28th, 1903.

The country doctor is he whose early life was that of the country or village; as a rule he is the best gift of a highly honored and self-respecting family of sturdy yeomen, especially chosen to give honor to his name and family, and to be equal in merit and nobility of the family doctor who lives in a nearby village. Such are the incentives which arouse the young man. An experience of a few years as a public school teacher enables him to be self-reliant and to develop personality—really an egotism. Such preparatory work is rivalled only by attendance during a few years, or better still, the full course of years, required for the degree of bachelor in arts or in science. Self-reliant, methodical, really sober in judgment, self-respectful and studious, fearless and tireless is he. He should be set apart for medicine is the opinion of the family doctor, and the die is cast. The "pale, sickly, and pious" brother is evidently called to serve the Lord. Both bend their necks to the yokes as easily as they contracted croup in early life.

This introduction of the future spiritual adviser, or

> "Leader of faithful souls, and Guide
> Of all who travel to the sky,"

is employed to serve as an illustration of the life-work of these brothers, whose lives are directly associated with the people, whose lives in consequence of this co-mingling or association are recognized as chief factors in the advancement and maintenance of sanitation and morality. The future clerical personage has been presented as pale, sickly, and pious. Such an assertion is not applicable or desired, although too commonly believed as worthy of this definition. No profession calls for greater vigor or moral worth than he who is to assist the country doctor should possess—co-workers in many enterprises in fact; for the wrongs that need resistance, or causes that need assistance, are those of the highly educated clergy. The poorly educated among such men, and such are too numerous, are the enemies of progress—in fact, our enemies. Some one has said, "Such minds have no living message for any one; they are merely speaking tubes through which the Past comes down to us. God help those who have to rely on what they have to give."

This world with its sunshine and flowers; God's word in the stars; the progressive development of man's goodness; abundant evidences of increasing philanthropy and practical benevolence, are too seldom announced from the pulpit. Too much of his eloquence is employed to preserve moss-covered creeds and

dogmas, apparently too full of crudities and cruelties. Shorn of such tendencies, this "vir pietate gravis," this co-worker of ours, would help more noticeably in the progress of civilization, and more and more would our professions conduce to each other's interests—not only to our interests, but to those of the dear people whose servants we are. Should not such a friendship and mutual and uplifting interest exist between us as held by Nisus and Euryalus, or Pylades and Orestes? If so, the saying, "Where three medical men are assembled two of them are atheists," would be untenable, or incapable of proof.

The preparation for the long-sought-for degree of doctor in medicine having been fulfilled, our young doctor, thoroughly disciplined thereby, advances to the footlights. The whole profession, in some respects, and those in his field of labor, act as the audience. His destiny is to see that "Life's a varied light allusion, joy and sunshine, light and shadow," and that no illiberal thought or motive should characterize his doings. He learns, and has been taught it, at least, if he has been properly taught, that catholicity reigns supreme in medicine, that whatever is administered as best is the best, our only limitations in regard to therapeusis being the sun, the air, the earth and the fulness thereof. Such is the liberality of our profession. While upholding, yes, venerating, the honored teachings of Hippocrates, Celsus, Galen, Eristatus, Heraphilus, Heraclides, not unmindful of the labors of Boerhaave, Cullen, and of others not less illustrious, whose services are memorable, our young doctor, contrasted with his brother the clergyman, is free to accept or reject such teachings, and yet be termed regular in practice. He learns, and is learning constantly, that his mission on earth is a struggle, an unceasing progressive struggle to find truths—medical truths —and to live by them. It is his to have the "keen spirit which seizes the prompt occasion, makes the thought start with instant action, and at once plans and performs, resolves and executes." To him his profession is, and ever will prove, a philosophy which never has rested, and never can rest. It knows no other law than that of progress. He learns too frequently that a point which but yesterday was invisible, is its goal to-day, and will be its starting-point to-morrow.

History reminds us that new worlds have arisen, and that we have lost old nations; equally can the same changes be adduced in respect to the numerous theories and schools of the past ages and the introduction of new ideas, but "he who beholds the bright countenance of truth in the quiet and still air of delightful studies," and finds encouragement in the thought that some

loved theory may be either abandoned or be recast, or modified, can and will ever be able to keep a warm heart in and for his profession, and otherwise escape that condition which may justly be termed mental fossilization, a condition too frequently observed and antagonistic to the spirit of the age.

I now introduce the country doctor, who, possessed of such nobility of soul, such glowing aspirations, would be able, in other and more or less honored fields of labor, to advance himself to the highest and most useful point obtainable, but such is not his destiny. His work is, and will be, such as acquires much honor apart from professional services; no more useful citizen or benefactor or confidential adviser could be named. I speak as one who has full authority to make these statements, as one who for more than three decades has been very closely associated with such men, not only with men in this, my native province, but in early professional life with colleagues, country doctors in a far distant state. Those days were days not only of perils, but of discomforts and disadvantages. Our faithful and tireless bronchos conveyed us and our saddle-bags to widely scattered homes.

> "I scarce can think those days are gone,
> And yet like dreams they are no more."

Those were the times in which we respected our seniors who taught us much, not only in practice, but in ethics. Fraternal relationships then were stronger, and we well knew if consultations were necessary, that our consultant would not try to rob us of our patients. To-day the consultant has to be carefully watched in too many instances, and the newly-fledged doctor too frequently is ignorant of professional honor for his elders.

It is an admitted conviction that in our staunch adherence to a code of moral law, and in the general and intelligent honesty of our members, we, although subjected to every form of temptations—many great and constant—can find few illustrations of violation of our code or principles of ethics, or of honor. No other occupation among men offers more abundant material for development of all that is best, that is useful, and that is noblest. When it is considered that no teachings during collegiate life are given on the subject of medical ethics, it is evident that a high grade of morals has either been inherited or has been acquired in practice by the average doctor. Although our profession is in the keeping of able men, yet many dangers exist, and are appearing, which threaten our best interests. While the expenses of living and the demands for our offices have greatly increased, have we arranged our fee tariffs to such changes?

Are we not capable of being aroused to recognize that we are becoming more and more enslaved by several widely known pharmacal companies? Are we not able to note that our medical journals—fortunately not all of them—are greater friends to such companies than they are to us? Is it not time that our provincial or state medical boards name such journals, whose columns and advertising pages have the almanac character, while these so-called pharmacal companies are announcing their so-called ethical goods to us? Too frequently is the poor and struggling doctor called to pay out his hard-earned money for them, and learns probably too late, that if he had studied his materia medica and other works on medicine relative to the subject, in preference to price lists of such companies, he would have served his patients far better.

The evidences furnished that old medicines are not totally abandoned, but becoming more studied and used, are many and encouraging. Should not we possess qualifications in materia medica equal, if not superior, to those demanded of pharmacists? If so, is such the case? Would it not be advisable that we adhere strictly to the employment of such medicines and their compounds as are named in our standard works on medicine, and not encourage preparations praised by the pharmacal company and a few well-paid officials connected with medical journals? We should prepare our own tablets and compounds; if not, our local druggist can do such work, and by so doing, the interests of each other would be the better conserved. Opportunities for the study of qualifications of medical students in their primary work are being afforded me in the position of examiner in materia medica and pharmacology for our College of Physicians and Surgeons.

These reflections, or shall I name them suggestions, are introduced for our best consideration. Heart-to-heart talks such as I humbly present, are what we of the country and of the walled city so earnestly need. Although each life is an existence viewing itself too much through a single medium, it is well for us to observe that medicine is a very jealous mistress, and the most difficult of all arts to acquire; and at such annual gatherings of this association, is it not but our rights to make confession by naming our sins of omission and commission, to view the past, consider our present interests, and to make attempts to look into our glorious future? For Cicero says that questions of any importance have the past, the present, and the future to consider (*tria esse omnino genera quae in disceptationem cadera possint; quid fiat factum, futurumve sit*).

What greater birthright can any intelligent or ambitious man claim and cherish than that his name is in the list—the long list of the Æsclepiadæ of the healers of men—a list, says Oliver Wendell Holmes, which stretches unbroken to the days of gods, of demigods, until its earliest traditions blend with the story of the brightest of the ancient divinities. Can crowned heads claim a lineage more noble? Can the church, with its apostolic succession traditions, its lives of the patriarchs, of apostles and martyrs, claim a greater or more honored progeny? Are not such reflections, and the statements that coronets have been placed on the heads of many of our learned brethren, quite enough to fill our cup of ambition? Who then among us is not, or has not, been ambitious to be the least among them, the country doctor? In the words of William Cullen Bryant,

"We seek not the praise on the love-written record.
The name, and the date inscribed on the stone;
The things that we do, let them be our story,—
Ourselves be remembered by what we have done."

These words are equally expressed by the immortal Hufeland, and are more directly appropriate to our profession: "Thine is a high and holy office; see that thou exercise it purely, not for thine own advancement, not for thine own honor, but for the glory of God and the good of thy neighbors. Hereafter thou wilt have to give an account of it." The country doctor, having time for reflection, recognizes these truths amid surrounding disadvantages and trials, lights and shadows, and, like virtue, a country practice is its only reward.

Along the village streets where maples lean
Together like old friends about the way,
A faithful pair oft and anon were seen—
He and his nag, both growing old and gray.
What secrets lurked within that old soul's breast,
Of mother-love, of throb of pains and ills,
All safely kept beneath that buttoned vest,
Receptacle of powders and of pills.
Thrice happy he when some fond mother's eyes
Grew moist with love unspeakable to find
Snugged to her breast her babe, whose paradise
Within her soul and bosom were entwined.
How oft he held the wrist to mark the slow
Pulsation of the feebly fluttering heart,
While his kind words, soft-murmuring and low,
Essayed to calm the mourner's pain and smart.
He was to all a father, brother, friend;
Their joys were his, their sorrows were his own.
He slept for years where yonder willows bend
Above the violets that kiss the stone.

# THE RENAL ASPECT OF ARTERIO-SCLEROSIS.*

BY JOHN CAVEN, M.A., M.D.,
Pathologist to Toronto General Hospital.

In studying the renal aspect of arterio-sclerosis, we come at once upon a broad division of cases into two classes, viz.: (1) Those in which the symptoms indicate a more or less widespread vascular change, the kidneys not being specially involved; and (2) those in which the kidneys are indicated as the chief cause of symptoms. Into the vexed question as to whether renal change, or general vascular change, be primary in those chronic cases in which a fibroid and shrunken kidney has been found, I do not propose to enter. This much, however, seems to be beyond dispute, viz., that we find in practice arterio-sclerosis declaring itself as a widely generalized condition, with or without symptoms indicating that some one or more organs are suffering especially, and as an affection apparently well limited to certain definite structures. It does not seem to me to be reasonable to speak of arterio-sclerosis of the cerebral vessels, arterio-sclerosis of the vessels of the heart, arterio-sclerosis of the digestive tract, not considering the changes inflammatory, and then, when we find a similar condition in the kidney, to talk of nephritis and leave out of view the relationship in causation between the various clinical conditions. It must, of course, be understood that those cases in which we have a history of chronic kidney change following a definite initial attack of nephritis are not under consideration. Although I have spoken of a division into a generalized and a localized arterio-sclerosis as affecting the kidneys, it must not be supposed that in the one case some systematic influence is at work and in the other a merely local influence. On the contrary, the symptoms and findings go to show that some widespread defect of metabolism is accountable for the changes. The proof of this lies in the fact that close observation demonstrates our inability to predict from general symptoms (and these will be found in all cases if carefully looked for) before marked defect is showing itself in any one locality, what the progress of the case will be, whether kidney, heart, or brain, or more than one of them, is to be specially affected. Variations in the pathological conditions found, however, would indicate

* Read at the Ontario Medical Association, June 18th, 1903.

differences in the toxic matters giving rise to the changes and, perhaps, peculiarities in the constitution of the structures affected. It is taken for granted that all disease is due to toxic influences, using toxic in the widest sense.

It has been said that all pathological changes and conditions have their physiological prototypes; there is nothing new under the sun. In this view the vascular changes found in scar tissue and in advancing years may be taken to represent those of pathological arterio-sclerosis. Whether that changes in other tissues induce the vascular alterations in old age, or the opposite of this, be true, at any rate in the condition of the arterial system we have an indication of the age of the organism. These changes have already been described in detail by Dr. Anderson, and need not, therefore, take up our time, but I would like to point out that if what precedes be correct arterio-sclerotic conditions should vary greatly in seriousness according to the age at which they occur, even if considered in part at least pathological. This, I think, is actually proven in practice. The urinary peculiarities indicating vascular degeneration are of relatively less serious import in the man of seventy years than in the man of forty years, and this is not merely because the expectation of life in the septuagenarian is much less in any case than in the man of forty, but because the symptoms and progress in the younger man will be much more pronounced and harassing. It may be asked why, if pathological arterio-sclerosis be toxic in origin, do we compare it with the normal process of ageing? The answer is clear, that the ageing of tissue is due to intoxications, it may be of various kinds. There comes a time in every chemical experiment when apparatus must be cleaned and renewed if results are to be accurate; environment prevents the completion of this process in the case of the human crucible and continual small accretions finally render it useless.

## Anatomy.

*The Kidney in Arterio-Sclerosis, not specially affecting the Kidney.*—Here we find changes such as are seen in old age. The whole organ is somewhat reduced in weight, it is firm to feel and gives one the impression on handling that the fibrous elements are increased. The capsule peels fairly readily, however, and whilst both cortex and medulla are reduced in amount, their relative proportions are preserved. The appearances are suggestive of an evenly diminishing blood supply. Small cysts may or may not be seen beneath the capsule. The microscope shows

the blood vessels somewhat thickened, perhaps but slightly, here and there fibrosed malpighian bodies together with slight increase of connective tissue, particularly beneath the capsule, where the tubules may be compressed.

*The Kidney in Arterio-Sclerosis where Renal Changes are marked.*—Here the fibrosis is well-marked and widespread, the connective tissue of the kidney being greatly increased. The increase is not evenly and regularly diffused throughout the organ, some parts being much more pronouncedly affected than others, and in the areas where change is greatest vascular sclerosis may have progressed to complete occlusion. Why some vascular areas should be more affected than others we can no more tell than in the case of other organs. The microscopic findings vary with the fibrosis, the destruction of secreting tissue being marked and due evidently to both direct external pressure upon the tubules from new tissue and internal changes in them resulting indirectly from it.

*The Urine in Arterio-Sclerosis.*—In arterio-sclerosis whether discovered through patients seeking relief from symptoms or in apparently quite healthy persons who may be, *e.g.*, applying for life insurance and so subject to examination, the urine gives definite and, perhaps in all cases, characteristic information. I would not like to say that in all cases the results of a single examination can be taken as positive proof, but I am sure that even where other means of diagnosis may give dubious information, careful, repeated analyses of the urine will justify at the very least the opinion that the conditions which will ultimately produce marked arterial changes are operating. I am speaking now of distinct pathological sclerosis, not the condition of normal ageing.

The quantity of urine in twenty-four hours varies, and is, where the kidney is not specially involved, about normal, rather lessened than increased. Its color is more often on the dark side than the light. The appearance is usually clear and limpid, and a permanent froth is often found on it even where albumen cannot be demonstrated by ordinary tests. This froth has the peculiarity that its bubbles are small compared with those forming on a distinctly albuminous urine. Pouring it from a bottle which is being shaken demonstrates the difference. The sediment, if any, is usually nubecular, and often shows uric acid or oxalate of lime crystals. The reaction is acid, and very commonly markedly so.

Specific gravity varies of course, but the tendency is to a

fairly high mark. If kidney changes advance, then later, with decreasing elimination, relative specific gravity becomes lower.

Phosphates are often diminished, and this is noteworthy.

Chlorides vary within normal limits.

The amount of urea varies greatly. In some instances it is considerably increased beyond the average for a time. As kidney action fails it diminishes.

Albumen is found in small quantity, often the merest trace, at some time or other in nearly all cases. This is true at any rate of such as are examined on account of symptoms. Where symptoms referrable to kidney lesion become more prominent it tends to persist, and the quantity may increase markedly. Early in the disease the appearances of albumen may be at such intervals, or in so small quantities that any but the most careful and exhaustive examinations will fail to detect it. The minority of cases in which albumen is never found is small, and the results of microscopic examination should suffice to put one on the right track.

Indican is often present in excess. It is of importance to make this test. It is quite within the possibilities that a chief factor at the start in production of arterio-sclerosis is absorption of toxic matters from the digestive tract which, acting locally to begin with, finally bring about widespread faulty metabolism. Indicanuria is taken as one of the chief signs of this condition of affairs. The corresponding compound, skatol, is also found in some instances.

## The Microscope.

For microscopic examination where arterio-sclerosis is suspected, the solid matters of urine should be thrown down by centrifuge. In the ordinary process of sedimentation by standing in a tube for twenty-four hours much that is of the greatest importance and interest will fail to drop. Objection has been taken to the centrifuge on the ground that it gives us as sediment that which is not to be regarded as pathological, unless falling by its own unaided gravity. Extended experience shows, on the contrary, that without it much may be missed which it is of vital importance to discover. The sediment in the urine of arterio-sclerotics exhibits some elements so constantly and increasingly as the disease progresses that, taken along with the symptoms, even though they be few, its examination should be of the greatest possible use as an aid in diagnosis. The findings in advanced kidney cases, and in those much less damaged, are often practically the same, although different elements prepond-

erate in different cases. Hyaline casts are prominent, and may be few or many in numbers. The more marked the kidney aspect of the case, the more numerous are the true hyaline casts. Cylindroids are *always* found, and the less the kidney is involved, the more numerous the cylindroids relatively to true casts. Study of these elements will, I think, convince one of the close relationship between them, the one apparently passing over into the other. Both are the result of irritation, and whilst the so-called *true* hyaline cast appears to lose something of importance, the cylindroid gains from widening experience. The constant presence of cylindroids alone is a very sure indication of vascular mischief which may end in marked sclerosis. Epithelial cells of various forms are often present, but are of no special diagnostic value, as it is usually impossible to tell from what part of the urinary tract they come. Blood cells, both free and adherent to or embedded in casts or cylindroids, are seen sooner or later in most cases. In oxaluric patients even before it is at all likely that arterial change has made any considerable progress, it is not rare to find blood cells embedded in cylindroids; much less frequently does this occur where uric acid is the crystal.

Crystals of both oxalate of lime and uric acid are common in these cases. Their persistent recurrence should be considered as important.

In the above we have the sedimentary elements which call for most attention in the urine of arterio-sclerosis. You will see that I have confined myself practically to a qualitative analysis of the urine except in so far as urea is concerned. Undoubtedly the solution of many of our difficulties in connection with the disease, whether considered as a general or local process, lies in far more elaborate chemical investigation of the urine and other excreta than our ordinary clinical facilities will permit of. It is impossible to doubt that errors of internal chemistry sufficient to give rise to changes so disastrous as are those under consideration, should not be represented in some detectable measure in the secretion of the kidneys. Results and processes heretofore have not been of great practical value to the practitioner, and are quite outside our time limits even if I had the knowledge and skill to speak of them.

## Symptoms.

The symptoms in arterio-sclerosis which would naturally be referred to the kidney are those classed as uremic. When we

inquire what is uremia, then difficulty begins. It is quite impossible to believe that all of the symptoms of uremia are the result of the partial failure to excret or secrete, or both, on the part of the kidney. We are forced to think of the more or less diffuse character of the vascular lesions and of the consequent manufacture and absorption of poisons, which would have at least some part of their effect irrespective altogether of kidney action. Whilst, then, the term uremic is useful so far, and until our knowledge is more accurate, it should not be allowed to lead us away from the widest possible view in the matter. Occasionally certain special phenomena, such as blindness from hemorrhages in the retina, or manifestations of improper heart action, may lead to discovery of serious kidney change, and thus, in a sense, may be called symptoms of it; but here again we must remember that they are also indications of vascular changes in these organs themselves, and in the circulatory apparatus generally.

In closing, let me state briefly the two chief conclusions that I have reached in a clinical and laboratory study of arterio-sclerosis, looking specially to its kidney relations.

1. We must not allow attention to be fixed upon the changes in one organ, to the exclusion of consideration of parallel changes in other organs, and the vascular system generally, and this, especially if we are to arrive at correct views as to causation and treatment.

2. Examination of the urine can be made of great value in any case of arterio-sclerosis, even when incipient.

## Reports of Societies

### CANADIAN MEDICAL ASSOCIATION.*

PRESIDENT, W. H. MOORHOUSE, M.B., LONDON. GENERAL SECRETARY, GEORGE ELLIOTT, TORONTO.

The thirty-sixth annual meeting of the Canadian Medical Association was held at London, Ont., August 25th, 26th, 27th, and 28th. A large number were present, a great many of whom were new members. The meetings were held in the Provincial

*Special report for DOMINION MEDICAL MONTHLY, prepared by Dr. G. L. Clarke, London, Ont.

Normal School, which is admirably adapted for such an occasion. Much of the success of the meeting was due to the energetic efforts of the President, Dr. Moorhouse, of London; and of Dr. George Elliott, the General Secretary, of Toronto.

Dr. J. C. Mitchell and Dr. J. H. Elliott were appointed auditors.

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*TUESDAY MORNING.*

GENERAL MEETING.

THE SURGICAL TREATMENT OF HALLUX VALGUS AND BUNION.

By Dr. James Newell, Ph.B., M.D., Watford, Ont., late Professor of Therapeutics in the Michigan College of Medicine and Surgery.

The term "hallux valgus" implies abduction of the great toe. This may be of variable extent, but is usually of marked degree. By "bunion" is meant the swelling and hypertrophy of the tissues over the internal aspect of the metatarso-phalangeal joint of the great toe, and is extended so as to include the hypertrophied head of the metatarsal bone, and the overgrown base of the first phalanx.

Hallux valgus precedes bunion; its usual cause is ill-fitting boots. In the natural condition a line drawn through the centre of the great toe and produced backward will run through the middle of the heel. This condition is rarely found in the adult. The outward deflection of the great toe uncovers the head of the metatarsal bone, and with this there is also a slight outward dislocation of the base of the first phalanx. Owing to this, there ensues an inflammatory condition, followed by swelling, hypertrophy, and frequently a false bursa. As the dislocation proceeds, the tendon of the extensor proprius pollicis is displaced outward, and a distinct exostosis is often formed.

*Treatment.*—A shoe with a straight internal border, and roomy at the toes, but with no dead space, should be worn. If seen in the early stages, an attempt should be made to keep the big toe in its proper place by using a sock with a separate compartment for it, or by some mechanical apparatus. When, however, the deformity is well-marked and the condition is troublesome, operative procedure should be advised. The operation which I have done has been followed by complete and permanent relief of both the bunion and the hallux. The operation demands thorough antiseptic technique.

*The "Tubby" Operation.*—Make an incision from two to three inches in length, with its centre over the bunion, along the inner side of the great toe. The false bursa, if present, should now be removed. Deepen the incision down to the bones, and separate the tissues from them. Divide the ligaments, and thoroughly open the joint. Turn the great toe outward, exposing the head of the metatarsal bone. Saw through the metacarpal bone just behind the articular cartilage, obliquely from above, downwards and backwards. Smooth off any rough edges left. When bleeding has ceased, close the wound by silk-worm-gut sutures. Place a pad of cotton between first and second toes; dress with gauze, and place a lead splint, with a piece turned up, between the first and second toes on the sole of the foot; wrap well in plain gauze, and bandage; place in bed, with the foot elevated; remove the stitches in ten days, and re-apply the splint. Use passive movements in two or three weeks. The pad between the toes should be worn about a month.

### INGUINAL HERNIA OF THE UNDEVELOPED UTERUS AND APPENDAGES.

Report of case by R. Ferguson, London.

Mrs. X, thirty-two years, married six years, consulted him in March, 1903, for violent attacks of temporal headache, with pain and vomiting, lasting about twenty-four hours, and recurring every four to six weeks. She was robust and muscular, with perfect health between attacks. Had no subjective pelvic symptoms.

*Examination.*—She had an inguinal hernia on the left side, which she had noticed at seven years of age. It disappeared on lying down, but, owing to an increase in size, a truss was worn for four months before operation.

*Pelvic Examination.*—The vagina was small, and resembled a cul-de-sac. Cervix was absent. Bimanual.—The uterus and appendages were absent. A tumor was felt on the left side. Urethra and bladder were normal. Hernia was not completely reducible. The external genitals were well developed. The mammæ were normal, but nipples were absent.

*Operation.*—A median abdominal incision was made, the bladder was found in normal position, but the uterus and appendages were not seen. The median incision was closed, and hernia operated upon. In the sac he found an ovary, and an imperfectly developed uterus, to which was attached a cystic body. The internal abdominal ring was much enlarged. The pedicle was ligated, transfixed, and base returned into pelvic

cavity. Operation completed as ordinary Bassini. Recovery good, and headache ceased. Specimen was exhibited. Dr. Ferguson thought the headaches were caused by attempted ovulation.

#### CAUSES AND TREATMENT OF POST NASAL DISCHARGE.

By Perry G. Goldsmith, Belleville.

The frequency of this complaint and its indifferent treatment induced him to read this paper. He first spoke of causes situated in the nose, as rhinitis, acute and chronic, foreign bodies, purulent ethmoidal and frontal disease, polypi, hypertrophied mucous membrane covering turbinals, deviated septum. He then mentioned naso-pharyngeal and pharyngeal causes—adenoids and polypi—and lastly, cases due to loss of systemic tone. He only advocated operations on the septum when it interfered with nasal drainage, or caused rhinitis or pharyngitis. He thought the galvano-cautery caused much harm, and was used too frequently. He preferred chromic acid in hypertrophy of mucous membrane covering the inferior turbinals.

Naso-pharyngeal cases were usually cured by removing adenoids, for which he preferred the forceps and curette. Some cases dependent on gastro-intestinal disease were improved by massage and internal medication. In neurotic cases, which are most common in women, he did not advise local treatment, but systemic.

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*TUESDAY AFTERNOON.*

GENERAL MEETING.

#### ADDRESS IN MEDICINE—LYMPH CIRCULATION IN MODERN MEDICINE.

By H. A. McCallum F.R.C.P., London, Ont.

(This paper will be published in full in October number.)

MEDICAL SECTION.

Chairman, Dr. R. W. Bruce Smith, Brockville.

Dr. Hodge (London) showed a case of disseminated sclerosis; male, age twenty-two. In August, 1898, after heavy exertion, he was exposed to the wet, and in a few days suffered with muscular soreness. On October, he had an apical systolic murmur, which was thought to be rheumatic in origin. He grew worse, gait became stamping, legs became useless, and knee jerks were absent. In May, 1899, his knee jerks had re-

turned, and he was stronger, but complained of numbness in hands. In June, 1899, he was able to ride his bicycle, and his walking had improved. There was no alteration in pain, temperature or muscular senses, and no incoordination. Improvement continued until July, 1901, when his walking became difficult and knee jerks were increased. There was no disturbance of sensation, no muscular wasting or ankle clonus. He was constipated, and had difficulty in micturition. February, 1903, he was unable to stand alone; knee jerks were increased, supinator and triceps jerks were marked. There was no ankle clonus, no nystagmus, or disturbance of cranial nerves. Speech was thick. He presented the same symptoms at present time.

### DISCUSSION ON THE TREATMENT OF TYPHOID FEVER.

Dr. W. P. Caven (Toronto) said that he believed a fluid diet was best, but that he allowed some carbohydrates and fats to repair body waste. He preferred milk given every two or three hours, but at night and in milder cases, the intervals in feeding might be increased. About two quarts in the twenty-four hours were required. The milk might be diluted with water, vichy or lime water, or flavored with a little tea or coffee. In some cases peptonized milk did very well. He also gave oatmeal or tapioca water, and calves'-foot jelly. Albumen water, made from white of egg, and flavored, was very palatable. He gave his patients plenty of plain water to drink. Alcohol was needed in cases with much prostration, dry tongue, subsultus tendinum and insomnia. He then spoke of the favorable results of prophylactic treatment, as evidenced in the South African war. Medicinally, he divided his treatment into (1) antipyretic; (2) antiseptic and eliminative.

*Antipyretic.*—He was glad that the use of drugs to produce this effect was gradually passing away. They were greatly inferior to the Brand method and its modifications, which acted also as systemic tonics. The Brand method was limited to hospitals, and selected cases in private practice. It was contra-indicated in myocarditis, pericarditis, intestinal hemorrhage, and in the aged. He used tepid sponging in all cases.

*Antiseptic.*—He prefers calomel, which, without being a specific, limits germ multiplication, and lessens the absorption of their toxines. Salol and napthol are also useful.

*Intestinal Hemorrhage.*—He relied on morphia, but had used injections of normal saline solution and gelatine with much success.

*Tympanites.*—He liked turpentine given in ten minim doses frequently repeated, also enemas of assafetida. He did not believe that the rectal tube was of any benefit.

Dr. J. Herald (Kingston) spoke of the impossibility of removing the cause, and since there was no specific treatment, instead of aiming at curing the disease, we should watch our patient carefully, and thus ensure recovery. He believed in hydrotherapy, but thought it sometimes caused shock. In some cases, to reduce fever, he has his patients bathed with dilute alcohol, then vigorously fanned by an attendant, producing rapid evaporation. His diet is mostly milk, but also gives other easily digested food. He uses no special medical treatment, but treats symptoms as they arise. For tympanites, he uses turpentine, by the mouth as a rectal injection, or applied externally; he had also seen good results from subgallate of bismuth in ten grain doses. He does not use alcohol as a routine measure, but in cases with dry, brown tongue, muttering delirium and failing heart it is the best drug. In intestinal hemorrhage, rest, mental and physical, must be absolute. Morphia hypodermically, and the ice-pack placed on abdomen over the region of Peyer's patches was his routine treatment.

### Discussion.

Dr. Hunter (Toronto) reported cases where the temperature had been greatly reduced by using high rectal injections of saline solution.

Dr. H. A. McCallum (London) was a firm believer in the cold bath, and insisted on the use of friction, which relieved pain. He modifies the Brand method by placing a rubber sheet on the bed, and pouring on the water. He believed in purging early in the disease, and used strychnine from the beginning for its general tonic effect.

Dr. Caven closed the discussion by warning against the cold bath in certain cases.

### INTOXICATION IN APPENDICITIS.

By Dr. E. Hornibrook, Cherokee, Iowa.

He quoted statistics to show that medical students, hospital internes and nurses are very liable to be attacked, and relates cases proving that canned meat and putrefying material may be causative by increasing toxicity of intestinal contents. He maintains that the greater the local reaction in appendicitis, the less is the danger of general toxemia. The intestines teem with

bacteria, which are prone to attack the appendix, an organ possessed of but slight resistance.

The treatment should be eliminative. He has used acetozone with success. He gives calomel, 1-4 grain doses every two hours till bowels move. Operation in the first forty-eight hours gives the best results if intoxication is not too great.

### Discussion.

Dr. DeWitt (Wolfville, Nova Scotia) believes that intoxication is an important factor in appendicitis. He uses enemas of salines or boracic acid and calomel or olive oil internally.

Dr. Hornibrook closed the discussion by stating that appendicitis was both a medical and a surgical disease, and that it was impossible to state early which cases would end fatally.

### THE SIZE OF THE PUPIL AS AN AID TO DIAGNOSIS.

By J. T. Duncan, M.B., M.D.C.M., Toronto.

*The Size, the Shape, and the Mobility of the Pupil.*—Size: They may be contracted, dilated, or unequal. Shape: They may be circular, oval, or irregular. Mobility: Instead of reacting to light, or other stimulus, they may be immovable or fixed. It is the object of this paper to point out the deviations from the normal that may occur, and to show their signification. The muscular fibres of the iris run in two directions: the circular or contracting fibres supplied by the third nerve, and the radiating or dilating fibres supplied by the sympathetic. But another factor has to do with the size of the pupil, the blood supply of the iris. The vessels in this structure run in a circular plane, and so many are present that it has been classed with the erectile tissues. Engorgement of these vessels causes contraction and depletion, dilatation of the pupil. The size of the pupil is thus seen to be influenced in three ways: (1) By the circular fibres of the iris; (2) by the radiating fibres; (3) by its blood supply. Any stimulus applied to the third nerve, acting on the circular fibres, will cause contraction of the pupil. A stimulus applied to the sympathetic will cause dilatation of the pupil. Stimulation of the third nerve, with paralysis of the sympathetic, gives pin-point pupils, and stimulation of the sympathetic, with paralysis of the third nerve, will give extreme dilatation.

*What Irregularities may Mean.*

(*a*) Pupils evenly contracted—myosis—may indicate: (1) Locomotor ataxia (tabes dorsalis); (2) meningitis and encephalitis (early stages); (3) chronic inflammation of the cervical

portion of the cord; (4) apoplexy of the pons; (5) epilepsy (early); (6) uremia; (7) tobacco amblyopia; (8) inflammation of the retina; (9) opium poisoning; (10) may be due to the use of drugs (eserine, etc.); (11) long continued use of the accommodation, as seen in watch-makers, etc. (occupation myosis).

(*b*) Pupils evenly dilated—mydriases—may indicate: (1) Paralysis of third nerve on both sides, as seen after diphtheria; (2) late stages of intra-cranial tumors; (3) intra-cranial effusions; (4) irritation of the cervical sympathetic; (5) acute inflammation of the cervical cord or its membranes; (6) premonitory to tabes dorsalis; (7) intestinal worms or other irritation in digestive tract; (8) after epileptic fits; (9) cataracts; (10) amaurosis; (11) acute mania or melancholia; (12) the use of drugs—mydriatics.

(*c*) Pupils unequal may suggest: (1) Tabes dorsalis; (2) general paralysis of the insane; (3) unilateral lesion of the third nerve or sympathetic; (4) diseased tooth; (5) pain affecting any branch of the fifth nerve; (6) old iritis; (7) application of a drug to one eye; (8) unilateral lesion of brain; (9) may be a congenital condition; (10) acute unilateral glaucoma.

In examining a case where some abnormality has been observed, the first procedure is to ascertain if the pupil react to light. To do this, have the patient face the light, a window if possible; now cover both eyes with the hands, and remove each in turn. If the pupil does not dilate in the shade, nor contract on exposure, we say that it is immobile, or fixed.

Contracted and fixed pupils point in the majority of cases to tabes dorsalis. Pupils dilated and fixed may mean blindness or the use of mydriatics. Pupils irregular or fixed usually point to one of two things—locomotor ataxia, or general paresis. These two conditions cannot be separated by the size or the shape of the pupil. Pupils irregular and moveable: This may be due to a bad tooth, or some other irritation of the fifth nerve.

## THE PHYSIOLOGICAL GENERATIVE CYCLE OF WOMAN.

By Jennie G. Drennan, M.D., St. Thomas.

In the study of evolution there is observed a constant, slow and gradual changing of the functions and structure of the animal in accordance with changes in its environment. Structure is determined and preceded by function, and function by environment. In the generative system, as in all other organs or structures, changes due to changes in environment occur. Adaptation

and heredity are the two great factors which cause the changes wrought by evolution. Be the environment a good one, evolution will tend upwards; if a pernicious one, then downward, for evolution works both ways. Every people passes through three stages—uncivilization, civilization, and decivilization. In these enlightened days we are apt to think that we will escape the last of these changes, but as sure as day follows night and night day, we will reap what we have sown. The physiological cycle of woman is comprised of three factors: Ovulation, pregnancy, and lactation. These should follow each other in physiological sequence, one being completed before the next is begun. Every physiological act or function is accompanied by a physiological hyperemia, and as each organ, ovary, uterus, and mammæ are active in turn, so the blood stream is directed to each. If from any cause this normal cycle is interfered with, and more blood than is required to meet the demands of the non-functionary organs be directed to them, then the one supposed to be in an active functionating state is deprived of its normal amount of blood, and its functionating power is lessened.

Ovulation, with its attending sexual excitement, is to the mammal what blossoming is to the plant, an evidence on the part of each that a seed is ready for impregnation. With mammals other than the human species, ovulation is confined to distinct seasons, the mating times of the year or years. Ovulation is usually followed by fecundation, pregnancy, and lactation. This is the physiological generative cycle of mammals. In the human female this cycle is interrupted by a lesser, a monthly one, which consists of ovulation and menstruation; it is a pathological condition arising out of non-adherence to the laws of nature. In primitive woman the larger cycle predominated, but as the scale of civilization is ascended, the lesser cycle becomes more and more prominent, until it predominates. Ovulation precedes menstruation, and the latter is an evidence that impregnation has not occurred. It is the depletion of a hyperemic uterine mucous membrane, which was being prepared for the reception of an impregnated ovum. Every menstruation is a disappointed pregnancy, and is, therefore, an abnormal state. It does not occur in other forms of mammals, except in a few anthropoid apes living in captivity. Mating with the primitive woman was much the same as with the brute creation; as soon as she was sexually matured, she married, and entered on the generative cycle of a mammal. As she nourished her child for at least two years, the time of the generative cycle would be about three years. Primi-

tive people did not produce large families; the production of such is as unnatural as the present-day small family.

As a race becomes more artificial in its mode of life, it becomes a more sexually-inclined race; every factor in life is then sought as a source of pleasure. The civilized man too often lives to eat. The sexual element becomes adapted to the new state, and heredity hands down an increasing function of the ovarian portion of the system until menstruation is a monthly phenomenon, and the lesser cycle predominates.

The sexual, social, and religious life of a people are closely interwoven. Among primitive races religious festivals were little more than sexual orgies; in our civilized pride we refuse to recognize any relation between the three, but it surely exists. What effect the moon may have had in determining this monthly ovulation is uncertain; but moonlight nights are those chosen for pleasure and for bringing the sexes together.

If preventative medicine is to be practised, a physiological understanding of the human body must be possessed by the profession; and we, the physical leaders of the people, must teach them according to natural law. The effect of mind upon matter, and matter upon mind, is daily becoming more apparent to the leaders in scientific thought. The body must be studied from a psychological, as well as from a physiological standpoint. Gynecological disorders have their psychological causes as well as those of other parts of the body. The sexual element is so interwoven in the being of all that it must influence the organism in many ways. Delicate subjects are often neglected, but ignorance is no excuse for the laity, nor is false modesty any excuse for us.

### THE MEDICAL TREATMENT OF DISEASES OF THE NOSE AND THROAT.

By John Hunter, Toronto.

He believed that the patient should be carefully examined for trouble in other organs, and that we should treat our cases of nose and throat disease on the same principles as we treat disease in general. He strongly advocated the morning bath and friction, followed by gymnastic exercise to remove waste products. The diet and eliminative functions should be carefully studied.

*Local Treatment.*—Before using the nasal douche, the absence of obstruction to the return flow should be ascertained. Alkaline and slightly astringent solutions were the best. The

field should be well cleansed, and all morbid secretions removed, before applying chromic acid or the galvano-cautery. The importance of regular treatment was insisted upon. Laryngeal cases were benefited by the inhalation of medicated vapors.

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## *TUESDAY AFTERNOON.*

## SURGICAL SECTION.

### OPERATION IN HIP JOINT DISEASE WITHOUT SHORTENING.

R. P. Robinson (Ottawa) reported two cases, one a child, the other a young lady, upon whom he had operated for advanced tubercular hip joint disease. After curetting away all necrosed bone, preserving all the periosteum possible, he denudes the healthy bone for half an inch of periosteum, and stitches it to the periosteum which he raises from the ileum. He then sutures the muscles with catgut. The wound is allowed to granulate. Extension with a fifteen pound weight is applied, and patient allowed to sit up in bed in two weeks, but not allowed to walk for six months.

### DISCUSSION.

Dr. A. H. Ferguson (Chicago) thought that it was impossible to prevent shortening. He believed that cases beginning in the synovial membrane should be treated by injections of iodoform glycerine, 10 per cent.

### GUNSHOT WOUND OF THE UPPER ARM WITH NON-UNION OF HUMERUS AND DESTRUCTION OF THE MUSCULO-SPIRAL NERVE; OPERATION; RECOVERY SIX MONTHS LATER.

By Hadley Williams, F.R.C.S., London, Ont.

By the kindness of the patient, Dr. Williams was able to show the case to the meeting. History.—Patient, male, twenty-two years of age; Nov. 20, 1901, was accidentally shot in the right upper arm. He received almost the whole charge of shot, the muzzle of the gun being but a few inches away. When first seen, four months later, there was an inch and a half of shortening, there was an ununited fracture about the centre of the humerus, there was a discharging sinus on the outer side of the arm, and there was paralysis of the musculo-spiral nerve. The arm appeared so useless that he sought relief by amputation. On March 22nd, four months after injury, he was placed under

an anesthetic; a long incision from the insertion of the deltoid to the front of the elbow was made. The musculo-spiral nerve was found separated; the lower end was separated from the dense fibrous tissue which surrounded it, and held aside. The upper end was also freed from its groove in the bone. When both ends were freshened, there was a gap of two and a half inches between them. The ends of the bone were then sawed off for about two inches, and they were then united by means of silver wire. By stretching the nerve for about an inch and a half, the two ends were brought together, where they were held in place by means of a tension suture; this was a number two silk, and it was inserted about half an inch from the free ends, and passed through the body of the nerve. Another suture of number one silk was passed through the nerve close to the ends. Some tissue was now fixed in place between the nerve and the bone to prevent the latter becoming involved in the callus. Drainage was used because of the old sinus. Two months later the bone was still ununited, so the arm was placed in plaster. This was also unsuccessful, so it was decided to try to fix the fragments by means of a silver plate. July 30th, eight months after accident, this plate was fixed in position. The plate is rectangular and slightly curved from side to side to fit the bone. It is about two inches long by one inch wide. An oblong piece is removed from its centre to allow callus to enlarge. There is a screw hole in each corner, and also four small holes for a piece of silver wire to encircle each fragment. The nerve was not seen at this operation. Open treatment of the wound was used by packing it with gauze, and the whole arm was encased in plaster. The wound granulated rapidly, and in six weeks firm, bony union had taken place, and he could move his arm in any direction. September 10th, six months after the nerve suture movements first appeared in the fingers, and in three weeks were almost complete. On December 12th, eight months after the first operation, the silver plate was removed; the wound healed quickly. Since paralysis of the musculo-spiral nerve leaves the arm almost useless, a surgeon, in these days of aseptic surgery, should not hesitate to deal with the case by means of an open incision.

### Discussion.

Dr. Wishart (London) thought that wire was unsatisfactory in non-union of bone, and that the good result was due to the plaster, rather than to the silver plate.

Dr. R. W. Powell (Ottawa) had used wire with good success.

He wanted an explanation of the length of time it took for the recovery of the function of the nerve.

A. H. Ferguson (Chicago) said that the best procedure in non-union of bone was treatment by the open method.

Dr. Atherton (Fredericton, N.B.) spoke of a successful resection of the popliteal nerve, which he had had.

Dr. H. Howitt (Guelph) and Dr. E. R. Secord (Brantford) also spoke on the paper.

Dr. Williams closed the discussion, and showed the plate.

### REPORT OF TWO CASES OF HOUR-GLASS CONTRACTION OF THE STOMACH.

By H. Howitt, M.D., Guelph.

(This paper will be published in full in a future issue of this Journal.)

### THE SURGICAL TREATMENT OF PERFORATION OF THE BOWEL DUE TO TYPHOID FEVER.

By J. Alex. Hutchison, M.D., L.R.C.P., and S. Edin., Montreal.

The five cases here enumerated were all operated on at the Montreal General Hospital. The first four were unsuccessful, and ended fatally. Case 5 ended in recovery, after following a typical typhoid course. Case 5.—E. C., male, aged thirty-three; ambulatory typhoid. Admitted to hospital, December 30th, 1902. For some months previous patient had been using alcohol somewhat to excess. Onset was insidious, and he was not seen by his physician until a few days before admission. He then had active typhoid symptoms, but could not be induced to remain in bed. On admission it was thought that the disease was in its twelfth day; temperature, 104 degrees. The next day, seven and a half hours after admission, he developed severe abdominal pain, limited to the right side; there was marked fall in temperature, but an increase in the pulse rate; vomiting and diarrhea both present. Immediately there was well-marked tenderness and rigidity in the right iliac fossa. He was operated upon within two hours. Free sero-purulent fluid and feces were formed in the abdominal cavity. About four inches above the ilio-cecal valve, a large ulcer, involving nearly the whole circumference of the bowel, was found. In its centre was a small pinhole opening. A few hours after operation, abdominal symptoms had ceased, and during the following three weeks the case ran a typical typhoid course, developing rose-colored spots and enlarged spleen.

*Operative Technique.*—Ether; oblique lateral incision; ulcer folded in with fine Lembert sutures of silk. The peritoneal cavity was irrigated with saline solution, and the wound closed in the usual way. A drainage tube was left in, and through it the abdominal cavity was filled with saline solution, and the tube then clamped. Several large ice bags were placed upon the abdomen after he was placed in bed.

DISCUSSION.

Dr. Olmsted (Hamilton) said that appropriate cases were rare, and that the diagnosis was often difficult.

Dr. Powell thought that it was commendable to report failures, and to persevere until success was reached.

Dr. Atherton spoke of the benefit of early diagnosis, and early operation.

Dr. Hutchison, in reply to Dr. Secord, said that he used the oblique lateral incision. He said that he keeps the ice bags applied four or five days.

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*TUESDAY EVENING.*

GENERAL MEETING.

President's Address by W. H. Moorhouse, London.
(Published in full in this issue.)

A LANTERN LECTURE ON THE OPEN-AIR TREATMENT OF TUBERCULOSIS.

By J. H. Elliott, Gravenhurst.

Dr. Elliott showed plans of the sanitaria in different European countries. He then eulogized the work of Dr. Trudeau, and showed several views of his buildings, past and present. Lastly, he spoke of the work done at Gravenhurst, showing it had its social as well scientific aspect. The pictures of the administration building, cottages, and tents, were exceptionally good.

"Municipal Sanitaria for Consumptives," by E. J. Barrick (Toronto).

*(To be continued in our October issue.)*

Desiring to make a practical, useful journal for the General Practitioner, the Editors respectfully solicit Clinical Reports from subscribers and others.

# Dominion Medical Monthly

And Ontario Medical Journal

EDITORS:
GRAHAM CHAMBERS, B.A., M.B. WALTER McKEOWN, B.A., M.D.

MANAGING EDITOR:
GEORGE ELLIOTT, M.D.

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## THE PRESIDENT'S ADDRESS—CANADIAN MEDICAL ASSOCIATION.

The very able and masterly address delivered by Dr. Moorhouse, of the Canadian Medical Association at London, will be found published in full in this issue. An able presiding officer, Dr. Moorhouse was at all times keenly alive to the proper conduct of the meeting, and performed his duties in an unexceptionally efficient manner.

He struck the keynote when he stated that these meetings of the Association gave to each member of the medical profession an opportunity of meeting his fellow-practitioners from throughout the length and breadth of this wide Dominion, from the Atlantic to the Pacific. And this was fully illustrated in the past meeting, as every province, with the single exception of Prince Edward Island, was represented at London.

It is true, as he says, that the beneficial results of these meetings are not confined to the scientific aspect thereof. Equally as important is the ethical and social side, and men who are engaged all their lives in the alleviation of human suffering and the conquering of disease, do well to brush aside all the asperi-

ties of professional life, and meet in social concourse at least once annually.

Dr. Moorhouse traced, with a master's hand, the ancestry of our profession, and his historical observations proved as highly interesting as they were instructing.

His references to Dominion Registration were timely, and should assist Dr. Roddick towards the ultimate achievement of that object. He voiced the sentiments of this Journal exactly when he expressed the fervent hope that medical literature in Canada would be inaugurated, when some of our brightest men would enter the field of medical authorship.

Another important item in his address, well worth pondering over, was that relating to patent medicines and proprietary preparations. He strongly emphasized the fact that something should be done to shield the public from this great evil. The address is replete with valuable suggestions, and will repay reading at the hands of any who were unfortunate enough to miss its deliverance.

## RADIUM.

The element radium, discovered in 1898 by Professor Curie, possesses remarkable properties, which are at present engaging the attention of the scientific world. The element derives its name from the fact that it, as well as its salts, is continually evolving radiant energy. Of the salts of radium produced, the bromide is the most active. It emits rays which resemble the X-rays, in that they have the power of penetrating opaque bodies, of affecting sensitized photographic plates, and of converting air into an electrical conductor. On the other hand, radium-rays differ from the X-rays in being deviated by the magnet, and in having a calorific effect.

In explanation of these phenomena, physicists, among whom we may mention Professors Curie, Crookes, Lodge, Rutherford, Laberde, Thompson, and Becquerel, have been propounding some interesting hypotheses, the most important of which is a new theory with regard to the structure of matter.

They have discarded the atomic theory. The "atom" of Dalton is no longer considered the ultimate particle of matter, but is composed of a definite number of infinitely smaller identical units, each in constant motion in its intra-atomic sphere. These units are called "corpuscles" or "ions," and the chemical and physical properties of an element are functions of the number of "ions" in each atom. It has been estimated that the atom of hydrogen, the lightest of all known substances, contains 700 "ions"; that of oxygen, 11,200; of gold, 137,200; and of radium itself, 120,000 "ions." The intra-atomic motion of the "ions" of radium is more rapid than that of any other known substance. It is so violent that the force which holds the "ions" together in an atom is overcome, and the "ions" are set free into the ether, similarly as meteors leave the solar system. This atomic disintegration of radium is the cause of its radio-activity. Naturally, it should be expected that the substance would lose in weight. This is believed to be the case, but as the disintegration of the atom of radium takes place so very slowly, the loss is inappreciable to the balance. It is estimated that in ten thousand million years, the loss in weight from one square inch of surface would only be about one grain.

This theory of the constitution of matter offers an explanation not only of the phenomena of radium, but also of many other facts which have been recently observed and could not readily be explained by means of the theory of Dalton. For example, it affords an explanation for the effect of X-rays on the conductivity of gases. Again, with this theory it is an easy matter to explain the existence of natural families of elements, and that in these groups of analogous elements the atomic weights frequently increase in the same ratio. In fact, the existence of Mendelejeff's law of periodicity is a natural deduction.

Some physicists have advanced the theory that the "ions" of all the elements are identical. If this is true, and atoms in general can be disintegrated, as is believed to be the case with radium, then the transmutation of one element into another, of the base into the noble metals, should be within the reach of scientists.

This "ionic" theory is not altogether new to scientists. In 1815, Prout put forward the view that hydrogen was the only elementary substance. He was led to believe this from the fact that at that date the atomic weights of the elements were nearly simply multiples of one. The more exact determination of the atomic weights proved this theory to be untrue. Some years later, Dumas modified Prout's hypothesis, inasmuch as he took for the unit of atomic weights one-quarter the atom of hydrogen. He believed that the ultimate particle of all elements was equal one-quarter the weight of an atom of hydrogen. Dumas must, therefore, had in mind the possibility of disintegrating an atom of hydrogen. However, these theories were advanced to explain a false relationship among the atomic weights. When with modern apparatus, the atomic weights of the elements were determined, the hypothesis of Dumas was in turn found to be erroneous.

At present the subject of the use of radium in medicine is receiving special attention, although the great cost of the element, or its compounds, prohibits its general use. In Vienna, reports of successful treatment of cases of inoperable cancer have been noted. In London also, a cure of superficial cancer of the face has been recorded.

## THE WORK OF PROGRAMME COMMITTEES.

It becomes quite evident year after year that the programmes of many of our medical societies, more particularly, probably, those of the Canadian Medical Association and the Ontario Medical Association, are altogether too congested, and that it will be necessary for the Programme Committee to exercise both care and judgment in arranging programmes in the future.

It has been thought, heretofore, that the division into medical and surgical sections would meet all requirements, but it remains quite clear, that, even after this has been done, there is not then sufficient time to properly read and discuss all the papers allotted

to either section. Even in the General Sessions, the time is inadequate for the full and proper conduct of general business.

The reading of the paper, is limited constitutionally to fifteen minutes, which is altogether inadequate for the great majority of the papers prepared. Would it not be better to have twenty-five to thirty papers selected from those offered, instead of placing from fifty to sixty on the programme, and then allotting to each section three and, perhaps, four of the best of each section, thus allowing for full time to read same, and ample time for discussion thereof? More time would thus be given to general sessions, where a great amount of important work is often transacted now in a hurry and with a rush, work which always requires careful consideration, and the freest and widest discussion.

We commend these few hints to the Programme Committee of the Canadian Medical Association, feeling that, if they exercise their judgment towards this end, better results will be attained than heretofore.

## THE CANADIAN MEDICAL ASSOCIATION'S VISIT TO PARKE, DAVIS AND COMPANY.

In recalling the pleasures incident to the meeting of the Canadian Medical Association, held last month in London, Ont., not the least will be the enjoyable day's outing afforded those in attendance by the renowned manufacturing pharmacists, Messrs. Parke, Davis & Co., on a trip of inspection through their establishments at Walkerville and Detroit. Those members who availed themselves of the privilege are certainly to be congratulated, as the outing was not only a vacation, but was full of instruction and profit.

As the special guests of this firm, the party found themselves in the hands of friends who had anticipated every want, and welcomed gladly this opportunity to open their laboratories for critical inspection.

The special vestibuled train chartered for the trip by Messrs.

P. D. & Co. reached Walkerville about 10 o'clock, when an opportunity was given the physicians to visit the Canadian offices and laboratory. This plant, modern in every respect, is a credit not only to the firm, but to Canadian industrial enterprises. The management has now under consideration the outlay of about $25,000 in buildings, to enable them to handle more expeditiously their large and constantly increasing business. Thus in only a few years has this plant grown from a small to a stalwart industry, from which large shipments by train and boat daily go forth to all parts of the Dominion, as well as to England and Australia.

Leaving the laboratory, the guests, with escorts, boarded the beautiful steamer "Iowana," for a three and a half hour ride on the river and lake. During this time, lunch was served amid the charming water views. The party landed at the dock immediately in front of the Detroit laboratory, which, without doubt, is the largest establishment of its kind on the continent. It would require pages of this Journal to give anything like an adequate description of the many and delicate operations conducted in these buildings, from the time the crude drugs are received in the house, in carloads, until the finished preparations are sent forth. As drug manufacturers, Messrs. Parke, Davis & Company stand unrivalled. Their products are everywhere recognized of the highest class. Something like 2,000 persons are employed in connection with this laboratory, and about 240 travelling salesmen represent the firm in every portion of the civilized globe. This is indeed a "world-house," in every sense of the term. Its operations are international in scope.

A short account of this trip would certainly be incomplete were mention not made of the beautiful science laboratory recently erected, at a cost of about $200,000. This building, adjoining the main plant, stands on the bank of the Detroit River, and is one of the interesting and purely scientific structures pointed out to tourists, who find the Detroit River such a pleasant thoroughfare, on their trips east and west.

We have grown accustomed to the frequent announcements that this college or that university, aided, perhaps, by the munificence of some wealthy benefactor, is about to add to its equipment, by the erection of a laboratory for scientific purposes. It is most unusual, however, even in this day of broad expansion, for a commercial house to set aside a large portion of its capital for the construction of a complete modern scientific laboratory, and yet this is exactly what has been done by this firm, and the

result is not only a credit to them, but to the scientific principles which they so largely embody and represent. This building, which was inspected with such wonder and thorough enjoyment, is dedicated principally to scientific study and work in the fields of chemistry and biology, especially in their relation to medicine and pharmacy. From the basement to the roof, the entire arrangement could not be improved upon. Every consideration has been given to the matter of convenience, aseptic precautions, light, heat, and ventilation. The entire structure is composed of brick, stone and steel, and the delicate and costly apparatus found in every room on the four floors is not only perfect, but shows at a glance the great advancement made in scientific research work. The work seen here, conducted by scientific men of international reputation, is in such contrast to what one usually expects to see in a pharmaceutical establishment as to elicit the highest praise from visitors.

The immense twin stables were also visited, which, by the way, have been entirely refitted recently, at a cost of about $25,000, and house about 6,000 creatures, ranging in size from horses, of which there are about 200, to guinea-pigs and mice, of which there are several thousand. The stables are constructed in such a way as to afford the best sanitary effects possible. The heating, drainage, ventilating and lighting, receive quite as much attention as one would give these matters in the erection of a dwelling, or rather a large public institution. The floors are all laid in cement or asphalt; the walls are coated with a hard enamelled finish; the woodwork is replaced with iron fittings, and the corners are rounded, to prevent the lodgment of dust. The attaches are attired in clean white suits, and frequent flushings of water and liberal use of disinfectants make these stables the marvel of visitors, on the ground of cleanliness and the air of general comfort that pervades the place.

Leaving the laboratories, the guests, about six o'clock, repaired to the Russell House, where an elaborate banquet was given in honor of the visitors by this firm, which will long be held in pleasant memory by those in attendance, who will always consider this outing one of the most enjoyable entertainments in connection with a meeting of the Canadian Medical Association.

## News Items

DR. LORNE L. STAUFFER, of Waterloo, has decided to locate in Newton.

DR. J. D. MCKAY, Marion, Ind., Trinity '95, was in Toronto the latter part of August.

THE management of the St. John, N.B., General Hospital will erect additions to the extent of $20,000.

DR. GEORGE HODGE, London, Ont., has been appointed local examiner at that city for the Gravenhurst Sanitarium.

DR. FRANK NEAL, Walton, Ont., has gone to the Old Country to take special courses in the leading colleges and hospitals.

DR. J. H. O'NEILL, of Brampton, has located for practice in Paisley, and opened an office on Queen Street, next to the Hanna House.

DR. JOHN CLARK, Smithport, Pa., McGill '91, paid the Managing Editor a visit during the last week of the Dominion Exhibition.

DR. C. H. MCDOUGALL, a rising young medical man of Caradoc, has gone to the Old Country, where he will take a course in London hospitals.

DR. C. F. TREW, late professor of pathology and bacteriology in the medical department of the Western University, London, has accepted a similar position in the Indianapolis State Asylum for the Insane.

DR. COLLVER, of Otterville, reports a serious outbreak of typhoid fever in South Norwich township. An examination of the water showed that it was subjected to contamination from sewage for a long time.

DR. NORTON, Shelburne, has formed a partnership with Dr. A. T. Steele, the firm name to be Norton & Steele. Dr. Steele is a graduate of Toronto University and the Society of the Lying-in Hospital, New York, and after graduating was appointed resident physician at St. Joseph's Hospital, Paterson, N.J. He has latterly been practising at Arva, near London.

DR. J. P. LEE, Kingsville, Ont., has been paying a visit to Toronto.

DR. BLACK, of Paisley, has been appointed an associate coroner for the county of Bruce.

DR. T. CHISHOLM, of Wingham, has just published a valuable little book, called "Dialogues on English History."

DR. T. B. RICHARDSON has resumed practice after spending the month of August at Bala, Muskoka, with his family.

DR. COOK, of Traverston, has left for Souris, where he intends to hang out his shingle and begin the practice of medicine.

DR. JOSEPH GIBBS, Victoria, B.C., after attending the meeting of the Canadian Medical Association at London, took in the Dominion Exhibition.

DR. W. J. ARNOTT, Berlin, Ontario, has been appointed Medical Health Officer to fill the vacancy caused by the resignation of Dr. G. H. Bowlby.

DURING the month of August, there were 185 patients admitted to the Royal Victoria Hospital, Montreal, and 243 into the General Hospital, same city.

DR. FRED PARKER, Bruce Mines, Ont., we understand, has sold his practice, and will study abroad one year, before taking up practice again in one of the larger cities.

DR. TUCK, well and favorably known in Gorrie for many years, has sold his practice to Dr. Whitely who comes from Auburn, Huron Co. Dr. Tuck's health has not been any too vigorous, and he will likely take a brief holiday before locating any place.

DR. LORNE ROBERTSON, B.A., who had previously been admitted by examination to the membership of the Royal College of Surgeons, England, as well as becoming a licentiate of the Royal College of Physicians, London, is now entitled to the degree of F.R.C.S., Edin., having been successful in passing the necessary examinations to entitle him to that honor. The doctor, who has had such a brilliant college career, is a son of Dr. J. A. Robertson, of Stratford. He will practise his profession in Stratford with his father.

OWING to the crowded condition of our columns this month, on account of the very full report of the meeting of the Canadian Medical Association, we regret we can only make mention of the following obituaries: Dr. DeWitt Martyn, at Kincardine, on the 19th of July; Dr. Stuart McArten, Paisley, Ont., on the 3rd of August; Dr. Lucius S. Oille, St. Catharines, Ont., on the 15th of August; Dr. Fyfe Fowler, formerly Dean of the Medical Faculty of Queen's, at Kingston, on the 3rd of August; Dr. James McGarry, Niagara Falls, Ont., on the 13th of August; Dr. James W. McLaughlin, Registrar of West Durham, on the 10th of August; and Dr. Lachlan Sinclair, of Tillsonburg; Dr. J. B. Lundy, Preston, Ont., on the 20th of August; Dr. W. J. Neilson, Winnipeg, Man., on the 16th of July, and Dr. E. H. Wells, of Guelph, on the 18th of July.

## Correspondence

*To the Editor of* DOMINION MEDICAL MONTHLY:

Having enjoyed the hospitality of the Canadian Medical Association in 1899, by special invitation, and at the recent meeting in London, as delegate from the Medical Society of the State of New York, I wish to present through your columns, my appreciation of the courtesy shown me and of the scientific benefit received even in a brief intercourse with its members.

The interchange of hospitalities between the great gatherings of physicians of Canada and the United States, not only fosters professional solidarity, but tends to make the boundary between the two great English-speaking countries of this continent an imaginary line. The hearty good-will manifested toward the United States at the banquet at London, was too spontaneous and too generally voiced to be considered merely as the courtesy of hosts toward a very few guests, and it was, therefore, all the more inspiring to one who counts himself a loyal American, both in the restricted and in the broad sense.

I trust that whenever any member of the Canadian Medical Association is a guest of one of the societies on this side of the boundary, he will find that our political precedents are no bar to the same hospitality that we have ourselves enjoyed. Thanking you for the privilege of expressing myself through your esteemed Journal, I am,

Sincerely yours,

Buffalo, September 5th, 1903. A. L. BENEDICT